

# **Romney Marsh Socio- Economic Impact Assessment**

**A Final Report by  
Regeneris Consulting**

Shepway District Council, Kent  
County Council, Magnox Ltd,  
Nuclear Decommissioning  
Authority

## **Romney Marsh Socio-Economic Impact Assessment**

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# 1. Executive Summary

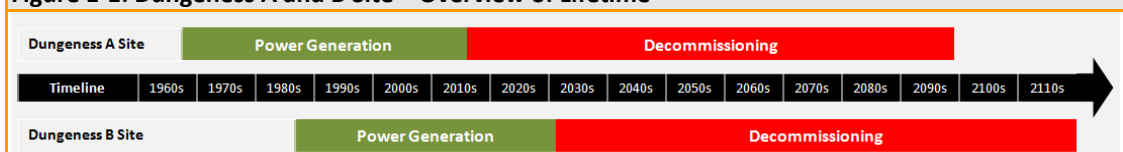
## Scope of Work

- 1.1 Regeneris Consulting was appointed in summer 2011 to examine the socio-economic impacts of nuclear decommissioning at Dungeness A Site (referred to as Dungeness A hereafter) on the local economy and to set out a socio-economic action plan for the local area going forward.
- 1.2 This report sets out the results of a detailed assessment into the likely social and economic consequences of the decommissioning process at Dungeness A.

## Study Context

- 1.3 Nuclear Power generation has been a key part of the Romney Marsh economy since Dungeness A opened in the 1960s. However, at the end of 2006, Dungeness A Site reached the end of its scheduled power generation lifetime and entered decommissioning.
- 1.4 The current schedule for decommissioning at Dungeness A is the 'Dungeness Interim Care and Maintenance' (DICAM) plan which envisages that the decommissioning process will incorporate 5 stages culminating in 2098. Different levels of activity – both in terms of cost and employment – are associated with each decommissioning stage. This is of core significance to this study – each phase of decommissioning impacting upon the local economy in different ways.
- 1.5 Adjacent to Dungeness A is Dungeness B Nuclear Power Station, owned and operated by EDF Energy. Dungeness B commenced power generation in the 1980s and is currently scheduled to enter decommissioning in either 2018 or 2023.
- 1.6 The timescales affecting the two Dungeness Power Stations is illustrated broadly below.

**Figure 1-1: Dungeness A and B Site – Overview of Lifetime**



- 1.7 The closure and decommissioning of Dungeness A (and in the longer term Dungeness B) is set against a wider backdrop of events and processes – such as ongoing weak performance at a macro-economic level – which have the potential to impact upon the Romney Marsh economy and population.
- 1.8 Given this context, it is clear that this is an important juncture for the local economy and its communities.

## Approach – Economic Impact Methodology

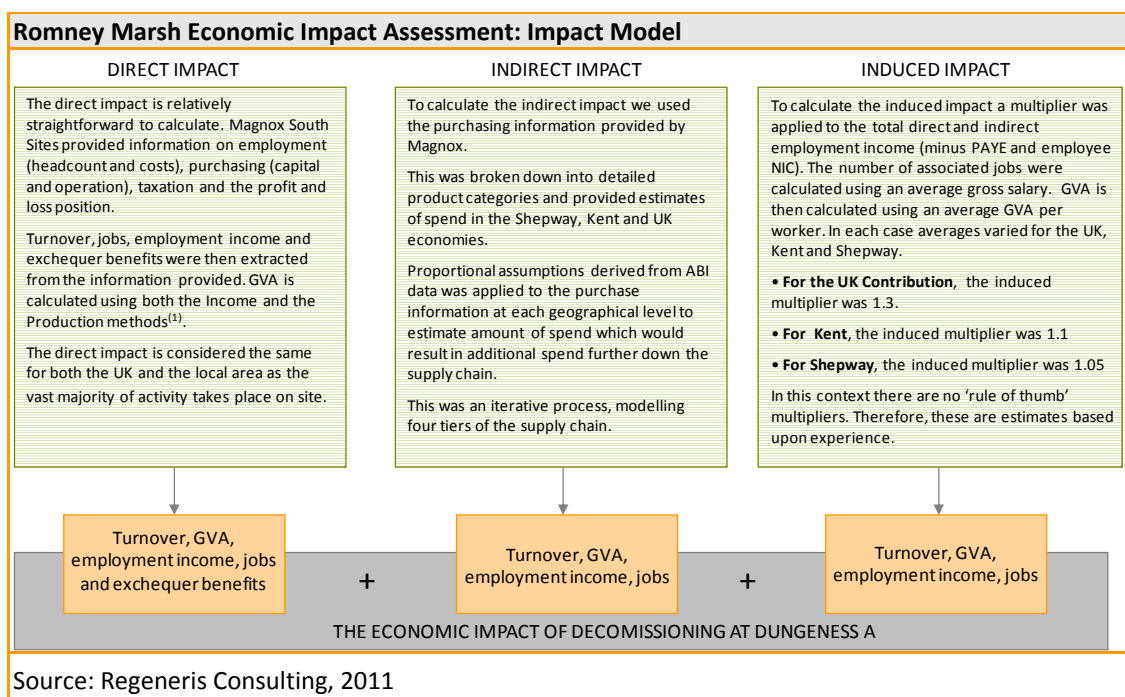
- 1.9 This economic impact assessment focuses primarily on the decommissioning of Dungeness

A, examining how the economic impact of Dungeness A will evolve as the decommissioning process progresses.

1.10 The economic contribution of Dungeness A has been considered in terms of the direct, indirect and induced impacts of the operations:

- **Direct Economic Impacts** – These economic impacts are a direct consequence of the activities and operations of Dungeness A.
- **Indirect Economic Impacts** – These are supply chain impacts. They arise from the purchase of goods and services from suppliers, who in turn make purchases from their suppliers and so on. The purchases of Dungeness A therefore lead to a chain of purchases throughout the economy.
- **Induced Economic Impacts** – Workers who are employed at Dungeness A and those staff who are employed indirectly through supply chain effects will spend their wages in the economy. This, in turn, supports further economic activity and employment.

1.11 In estimating each of the above we have used widely accepted economic techniques. Our economic impact methodology is summarised below.



## The Current Economic Role Played by Dungeness A Site

1.12 It is clear that Dungeness A is an important component of the local economy – especially in terms of the employment that it provides.

1.13 It is estimated that around 354 people are directly employed by Magnox Ltd at Dungeness A. Total direct employment increases to 432 jobs when sub contractors and agency workers are taken into account.

- 1.14 All onsite, direct employment at Dungeness A accounts for around a fifth of all jobs in Lydd ward (within which the site is located) and around 8% of all jobs in wider Romney Marsh area<sup>1</sup>. Possibly reflecting the geographically peripheral nature of the area, a high proportion of Dungeness A employees also live locally – nearly two thirds of Magnox Ltd employees working at the site live within Shepway and more locally, a high proportion live within the Romney Marsh area.

Dungeness A Site: Local Employment Contribution				
Dungeness A Site Jobs	Direct Employment (headcount)		354	
	Direct, Agency and On Site Sub Contracting (headcount)		405	
Wider Geogs		Total Jobs	Dun A Site Direct Employment as a % of Total	Dun A Site - All Onsite Employment as a % of Total
	Lydd	1,951	18%	21%
	Romney Marsh	4792	7%	8%
	Shepway	35,257	1%	1%
	Kent	540,097	0.1%	0.1%

Source: Magnox Ltd and Business Register and Employment Survey (BRES)

- 1.15 In monetary terms, it is estimated that Dungeness A directly contributes GVA of around £17.5 million into the economy and also results in Exchequer benefits of around £14.8 million.
- 1.16 When indirect and induced impacts are taken into account the estimated economic impacts of Dungeness A are considerably higher. Combining all impacts, it is estimated that Dungeness A supports:
- Around 800 jobs and GVA of £34.1 million at the UK level
  - Around 490 jobs and GVA of around £19.8 million at the Kent level
  - Around 460 jobs and GVA of around £18.6 million at the Shepway level
- 1.17 The disparity between these figures is largely the result of comparatively minor indirect impacts at the Kent and Shepway levels (compared to the UK level). This is the result of relatively low levels of supply chain expenditure by Dungeness A Site at the local level.
- 1.18 The **total economic contribution** currently made by Dungeness A is summarised in the table below.

Dungeness A Site: Summary of Current Main Economic Impacts				
	Direct	Direct, Indirect and Induced		
		UK	Kent	Shepway
Turnover (£million)	£35.5	£84.3	£42.8	£38.9
GVA (£million)	£17.5	£34.1	£19.8	£18.6
Employment (inc sub contractors)	432	799	486	458
Exchequer (£million)	£14.8	N/A	N/A	N/A

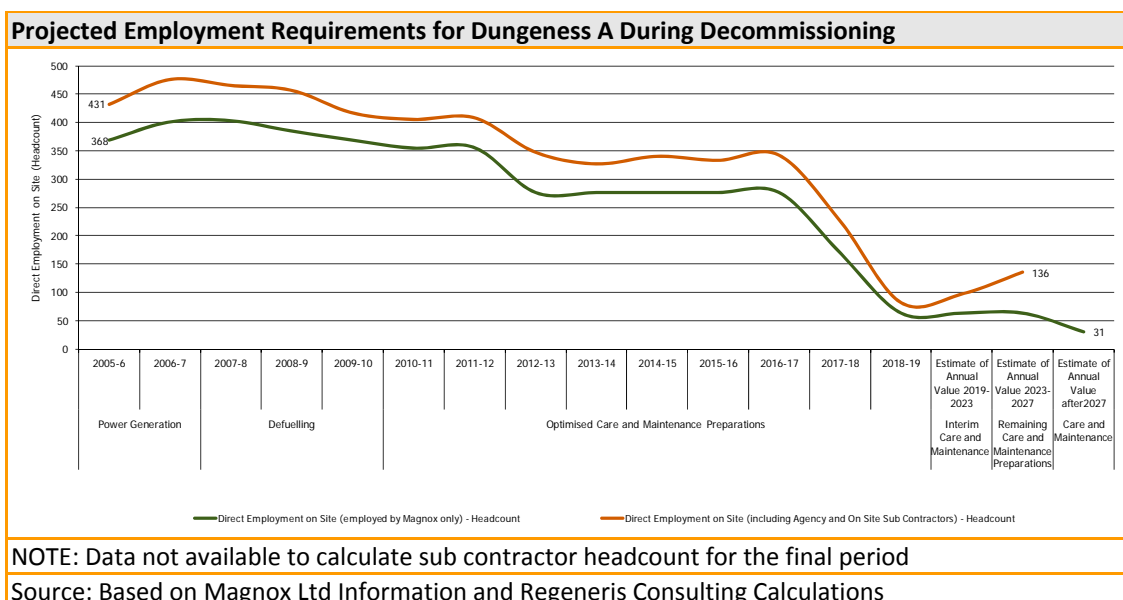
Source: Based on Magnox Ltd information and Regeneris Consulting Calculations

<sup>1</sup> For the purposes of this assessment the wider Romney Marsh area has been defined as incorporating five Shepway wards – Lydd, Romney Marsh, New Romney Coast, New Romney Town and Dymchurch and St Mary's Bay



## The Changing Economic Role of Dungeness A during Decommissioning

- 1.19 At headline level it is clear that the decommissioning process will result in a significant decline in the levels of direct, induced and indirect economic impacts that result from the operations of Dungeness A. Previous analysis highlighted the dependence of the local economy and population on the jobs provided by Dungeness A – reflecting this, it is anticipated that the decommissioning process will impact these areas in a disproportionate way. However, as discussed above, the timescales involved in decommissioning are significant in that they allow for an adjustment process to take place in the local economy.
- 1.20 The largest decline in the number of employees directly employed by Magnox Ltd is currently projected to take place from 2017-2019, when the direct employee level will fall by around 260 positions. This time period clearly represents a pivotal juncture going forward for the local economy and population. In the period after 2019, however, the demand for agency staff and sub contractors is projected to increase for a short period, as final preparations are made before the Care and Maintenance phase of decommissioning commences.



- 1.21 The overall changes in levels of direct economic impact of Dungeness A during decommissioning are summarised in the table below:

Dungeness A Site – Changes in Direct Impacts during Decommissioning					
	Average 2010/11	Average 2011 to 2019	Average 2019-2023	Average 2023-2027	Average 2027 and Beyond
Turnover (£million)	£35.5	£42.3	£9.6	£37.8	£2.6
GVA (£ million)	£17.5	£14.7	£4.6	£4.8	£2.2
Jobs (inc sub contractors)	432	334	121	192	N/A – see note below
Exchequer (£ million)	£14.8	£17.9	£4.3	£14.6	£1.6
NOTE: Data constraints mean that it has not been possible to estimated the number of sub contractors post 2027					
Source: Based on Magnox Ltd Information and Regeneris Consulting Calculations					

- 1.22 It is also anticipated that indirect and induced economic impacts relating to Dungeness A

are likely to decline significantly over the coming two decades. At face value, the relatively low levels of direct expenditure in the local economy by Dungeness A (discussed previously) would suggest that the impact of decommissioning on local suppliers / businesses would be relatively minor. However, anecdotal evidence suggests that there are some parts of the local economy which are reliant on Dungeness A – in particular, local service businesses such as guest houses, restaurants and shops which currently benefit year round from the high number of sub-contractors / temporary workers staying in the area. Locating these and helping them to adjust will be key going forward.

- 1.23 The table below summarises the changing nature of all impacts (including direct, indirect and induced impacts) during decommissioning:

<b>Dungeness A Site – Changes in Total Direct, Indirect and Induced Impacts during Decommissioning</b>						
		Average 2010/11	Average 2011 to 2019	Average 2019-2023	Average 2023-2027	Average 2027 and Beyond
<b>UK</b>	Turnover (£million)	£84.3	£79.8	£33.2	£64.7	£5.6
	GVA (£ million)	£34.1	£27.8	£13.8	£15.4	£3.2
	Jobs (inc sub contractors)	799	635	319	417	N/A – see note below
<b>Kent</b>	Turnover (£million)	£42.8	£49.0	£12.5	£41.0	£3.4
	GVA (£ million)	£19.8	£16.8	£5.5	£5.8	£2.4
	Jobs (inc sub contractors)	486	382	141	213	N/A – see note below
<b>Shepway</b>	Turnover (£million)	£38.9	£45.4	£10.8	£39.2	£3.0
	GVA (£ million)	£18.6	£15.6	£4.9	£5.2	£2.3
	Jobs (inc sub contractors)	458	356	130	201	N/A – see note below
NOTE: Data constraints mean that it has not been possible to estimated the number of sub contractors post 2027						
Source: Based on Magnox Ltd Information and Regeneris Consulting Calculations						

- 1.24 The analysis above highlights that the decommissioning process represents less of a sudden and sharp shock to the Romney Marsh and Kent economies than (for example) the recently announced closure of Pfizer at Sandwich. The overall length of the decommissioning process and varied nature of the different phases of activity means that Dungeness A will continue to exert an impact on the local economy going forward – although the level of this impact will taper off and decline in the period to 2027.
- 1.25 However, it is clear that the local (Romney Marsh and Shepway) economy and population is relatively dependant on the jobs provided by Dungeness A – and reflecting this, that the decommissioning process will impact upon these areas in a disproportionate way.
- 1.26 The implications of the analysis above – and options for the necessary local economic adjustment process – are considered in detail in the accompanying Romney Marsh Socio-Economic Plan.

## Wider Considerations

- 1.27 In addition to the quantifiable economic impacts associated with the decommissioning of Dungeness A, there are also a number of wider considerations to take into account when considering future local socio-economic performance in Romney Marsh. These include:



- **The Nature and Quality of Employment Supported at Dungeness A** – As would be expected given the nature of activities involved in nuclear power generation and decommissioning, the core workforce at Dungeness A is highly skilled and specialised in nature. These high skills levels clearly represent an important benefit for local economic performance and prosperity. However, it is also important to note that in addition to these highly skilled workers, Dungeness A also provides other employment opportunities for workers with a relatively wide range of skills. This is significant as it means that jobs supported by the site are accessible to people with a wide range of skills and occupations in the local population. It is also important that jobs supported by Dungeness A also tend to be full time, year round positions which have provided relatively secure form of employment over a long time period.
- **Impact on Training Provision in the Romney Marsh Area** – Whilst not necessarily a primary impact, it is important to recognise that Dungeness A plays an important role in upskilling and training its employees, sub-contractors and agency workers. As such, the decommissioning process will result in the loss of a training mechanism for Romney Marsh residents.
- **Longer term events such as the decommissioning of Dungeness B Site** – Detailed plans for the decommissioning of Dungeness B are yet to be laid out. However, it is likely that the decommissioning process will broadly follow a similar pattern as that being played out at Dungeness A. As such, job losses and reductions in overall economic impact should be expected throughout the 2020s and 2030s as the early stages of decommissioning are completed. It will be important for detailed analysis of the likely impacts of decommissioning – and perhaps more importantly the phasing of impacts – to be undertaken when the initial decommissioning plan has been published. In the interim period, however, it will be important that any actions taken to mitigate against the impacts of decommissioning at Dungeness A are designed in the context and understanding of future operations at Dungeness B.

## Next Steps

- 1.28 This report establishes a full understanding of the role that Dungeness A plays in local and sub regional economic performance and how this might change going forward. Based upon this understanding – and building upon detailed consultation with local stakeholders – a second study has been undertaken which examines possible responses to the impacts of decommissioning.
- 1.29 The future facing *Romney Marsh Socio-Economic Action Plan* accompanies this report and presents specific priorities, actions, and interventions targeted at strengthening and building economic performance in Romney Marsh going forward.

## 2. Introduction

### Scope of Work

- 2.1 Regeneris Consulting was appointed in summer 2011 to examine the socio-economic impacts of nuclear decommissioning at Dungeness A Site (referred to as Dungeness A hereafter) on the local (Romney Marsh) economy and to set out a socio-economic action plan for the local area going forward.
- 2.2 Dungeness A was connected to the National Grid in 1965. Over the following thirty years the power station has functioned as an important driver of the local and regional economy, not least providing a key source of employment for residents in the Romney Marsh area and the wider sub region. In accordance with the Lifetime Plan for the power station, Dungeness A finished energy production in 2006 and subsequently begun the decommissioning process. Current plans envisage that the decommissioning process will culminate in 2098.
- 2.3 In this context, partners in Kent including Shepway District Council, Kent County Council and the Nuclear Decommissioning Authority (NDA) commissioned a study which had two core objectives:
- To ascertain the socio-economic impacts of the decommissioning process at Dungeness A – and in particular the likely impacts on the Romney Marsh area
  - To examine possible responses going forward to mitigate against any negative impacts.
- 2.4 This report addresses the former of these two objectives, setting out the results of a detailed assessment into the likely social and economic consequences of the decommissioning process at Dungeness A.

### Study Context

- 2.5 Understanding the wider context within which decommissioning at Dungeness A is taking place has been a key factor in this study. In addition to the complex nature of the decommissioning process at Dungeness A, it has also been necessary to consider the longer term decommissioning of Dungeness B, and wider economic factors such as the closure of Pfizer's Sandwich facility, continued weak performance at the macroeconomic level and the associated implications of public sector cuts. All these factors are highly relevant when considering the economic and social vitality – both current and future – of the Romney Marsh area.

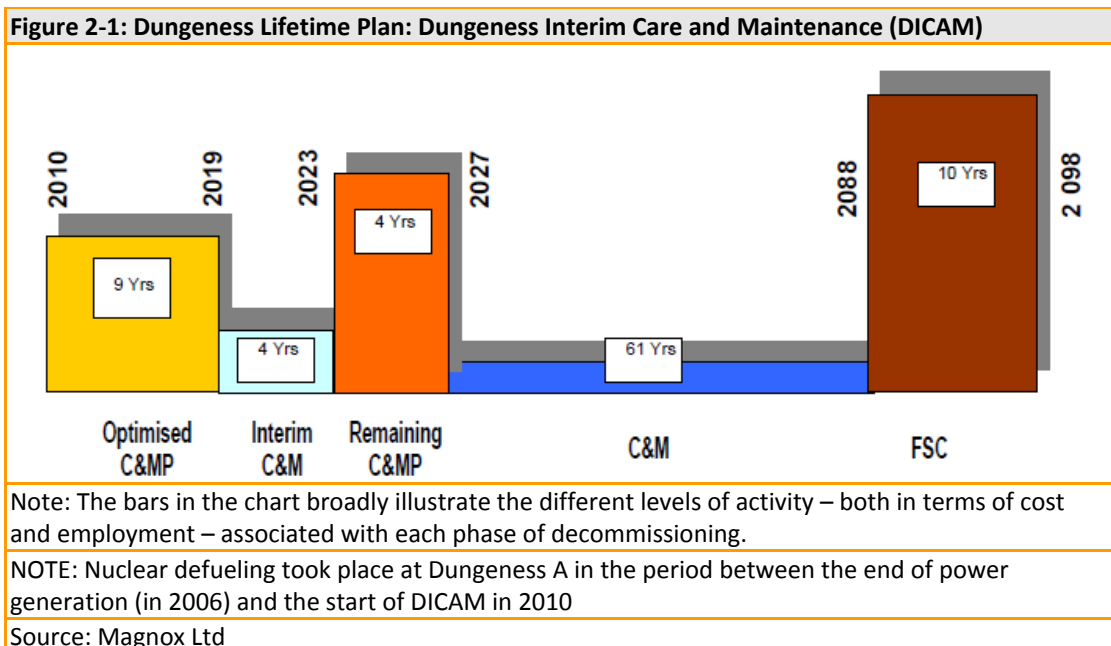
### Nuclear Power at Dungeness and the Decommissioning Process

- 2.6 Nuclear Power generation has been a key part of the Romney Marsh economy since Dungeness A opened in the 1960s. However, at the end of 2006, Dungeness A reached the end its scheduled power generation lifetime and entered decommissioning.

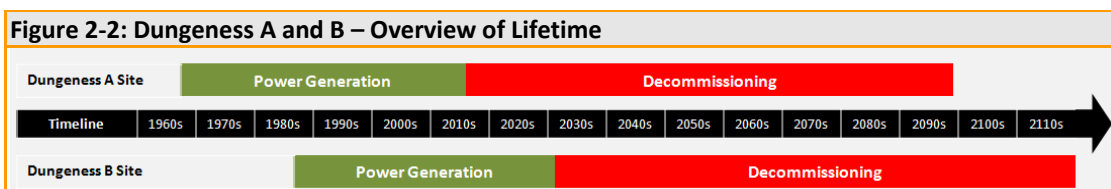
- 2.7 Nuclear decommissioning in the UK is the responsibility of the Nuclear Decommissioning Authority (NDA) – a non departmental public body created by the 2004 Energy Act. The NDA sets the overall strategy for decommissioning in the UK and owns all the Nuclear Power Stations undergoing decommissioning. However, the processes and operations involved in decommissioning are the responsibility of Site License Companies – companies set up by the NDA but whose shares are owned by commercial entities (Parent Body Organisations - PBOs). The NDA provides the financial resource required to undertake decommissioning at each site. The Site Licence Companies are responsible for ensuring that decommissioning targets set by the NDA (targets which have a strong focus on efficiency and safety) are met at each site. In return for meeting these targets, the Site License Companies (and hence the PBOs) are eligible for the payment of an ‘incentive fee’.
- 2.8 The Site License Company in charge of decommissioning at Dungeness A is Magnox Ltd and the Parent Body Organisation is EnergySolutions. Magnox Ltd’s current schedule for decommissioning at Dungeness A is set out in the ‘Dungeness Interim Care and Maintenance’ (DICAM) plan. This envisages that the decommissioning process will incorporate 5 stages culminating in 2098. These 5 phases incorporate a range of different activities and operations, as described in the *Dungeness A Site Summary – Lifetime Plan*<sup>2</sup>:
- The Care and Maintenance Preparations (C&MP) periods aim *“to make the site passively safe and minimise the amount of surveillance and maintenance required during the C&M phase”*.
  - Care and Maintenance (C&M) – during these phases *“the site remains in quiescent state for a prolonged period during which, no significant dismantling work will be undertaken. This allows reactor radiation levels to decay to facilitate dismantling”*.
  - Final Site Clearance (FSC) – *“On completion of C&M, all remaining buildings will be cleared, including the reactors following ground remediation and landscaping the site will be de-licensed and returned to shingle banks, becoming an SSSI”*.
- 2.9 The DICAM plan for Dungeness A is illustrated in the diagram below. The bars in the chart illustrate that different levels of activity – both in terms of cost and employment – are associated with each phase. This is of core significance to this study – each phase of activity impacting upon the local economy in different ways.

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<sup>2</sup> Nuclear Decommissioning Authority - Dungeness A Site Summary – Lifetime Plan, accessed at <http://www.magnoxsites.com/UserFiles/File/publications/lifetime%20strategy/DungenessSiteSummary200607LifeTimePlan.pdf>



- 2.10 Reflecting the complexities of nuclear decommissioning, it is important to note that the schedule for decommissioning at Dungeness A is subject to change going forward. However, for the purposes of this socio-economic assessment it has been assumed that the process will follow the schedule laid out by DICAM (correct as of July 2011).
- 2.11 Adjacent to Dungeness A lies the Dungeness B station, owned and operated by EDF Energy. Dungeness B commenced power generation in the 1980s and is currently scheduled to enter decommissioning in 2018 or 2023 if its operating license is extended.
- 2.12 The timescales affecting the two Dungeness Power Stations are illustrated broadly below.



## Wider Context

- 2.13 The closure and decommissioning of Dungeness A (and in the longer term Dungeness B) is set against a wider backdrop of events and processes which have the potential to impact upon the Romney Marsh economy and population. These include:
- Ongoing weak economic performance at the UK (and indeed global) macro-economic level and associated difficulties in retaining and creating employment. Data from the ABI and BRES highlights that following a period of strong employment growth in Romney Marsh and Kent as a whole, recent years have seen a decline in the overall number of jobs – between 2008 and 2009 (the most recent year data is available for) there was a net decline in the overall number of jobs in Romney Marsh and Kent of 6% and 2% respectively.
  - The associated reductions in public sector expenditure and the employment impacts

which are expected to result from this. A recent report for Kent County Council<sup>3</sup> estimated that as a result of public sector cuts there could be a direct reduction of up to 9,900 jobs in public services across Kent.

- The vulnerability of the wider Kent economy has been demonstrated by the recently announced downsizing of Pfizer's Sandwich facility. A recent report<sup>3</sup> estimates that the closure of the Pfizer Sandwich campus could result in the loss of up to 9,900 FTE jobs in Kent.

2.14 Given this context, it is clear that this is a challenging juncture for the local economy and sub-regional and its communities.

## Approach – Economic Impact Methodology

2.15 This economic impact assessment focuses primarily on the decommissioning of Dungeness A.

2.16 The assessment examines how the economic impact of Dungeness A can be expected to evolve as the decommissioning process progresses. The assessment considers the economic contribution that operations at Dungeness A make to the UK as a whole, as well as to the Kent and Shepway economies.

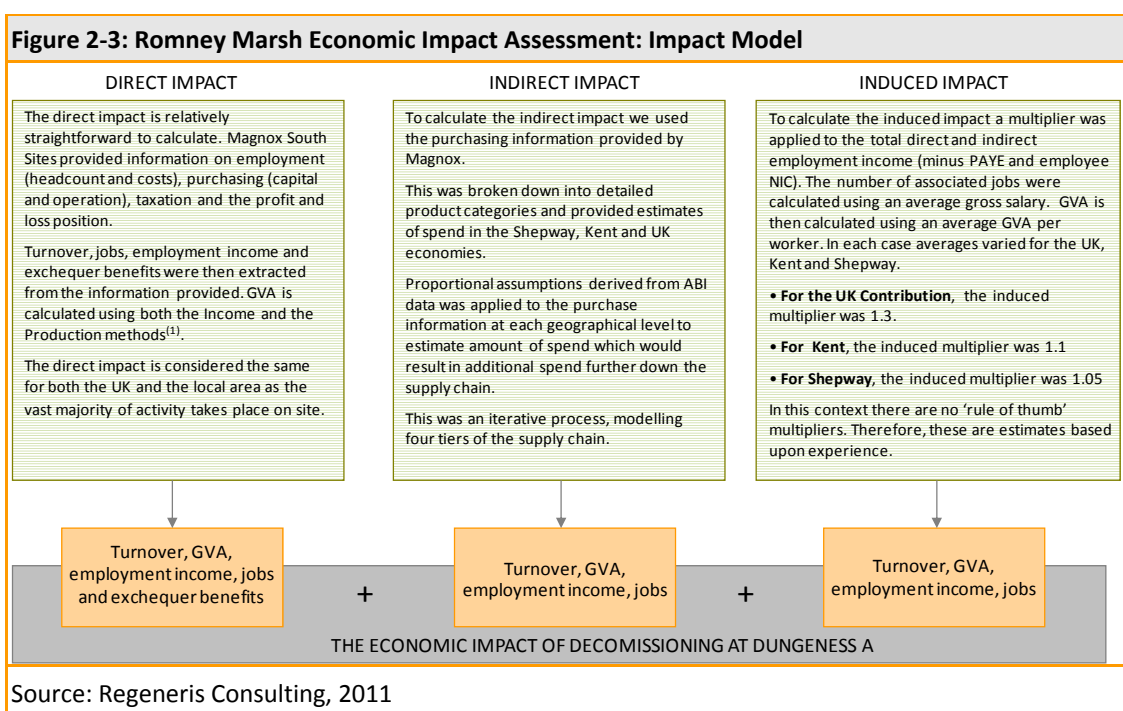
2.17 The economic contribution of Dungeness A has been considered in terms of direct, indirect and induced impacts. These are explained below:

- **Direct Economic Impacts** – These economic impacts are a direct consequence of the activities and operations of Dungeness A. They are measured in terms of the numbers employed, the associated employment income, the wealth created from operations (i.e. GVA<sup>4</sup>) and the payment of taxes to the UK Exchequer. Information on the direct impacts was provided by Magnox Ltd, collected via a number of bespoke proformas and one-to-one discussions with senior staff.
- **Indirect Economic Impacts** – This impact (which is also termed the supply chain impact) arises from the purchase of goods and services from suppliers (termed tier one suppliers), who in turn make purchases from their suppliers (tier two suppliers) and so on. The purchases of Dungeness A therefore lead to a chain of purchases throughout the economy. When considering the contribution to the UK economy, we have only included those goods and services purchased within the UK. Similarly for analysis of indirect impacts at the Kent and Shepway levels, only those goods and services known to be purchased respectively within these geographies have been included in the analysis. Again the indirect economic impact is quantified in terms of GVA and jobs.

<sup>3</sup> Kent County Council (2011) Working Paper 1 – Public Sector Job Losses, the Closure of the Pfizer Sandwich Campus, and the Decommissioning of the Dungeness Nuclear Power Stations: The Impact on Jobs in Kent Losses

<sup>4</sup> GVA is used in the estimation of Gross Domestic Product and measures the contribution of a particular activity to the economy. The GVA figure can also be described as a combination of wages received by those employed at Dungeness A Site, plus profit generated. Thus it is the economic value created by operations which is distributed back into the economy.

- Induced Economic Impacts** – Workers who are employed at Dungeness A and those staff who are employed indirectly through supply chain effects will spend their wages in the economy. This, in turn, supports further economic activity and employment. This is what is referred to as the induced impact.
- 2.18 Whilst measurement of the above impacts provides in depth quantitative analysis, it does not necessarily pick up on softer, more intangible impacts – these include potential impacts such as skills and training. As such, where necessary we have supplemented data with qualitative analysis based upon evidence from consultations and our own knowledge of the local context.
- 2.19 In estimating each of the above we have used widely accepted economic techniques. Below we have set out the methodology diagrammatically. Further detail on the assumptions made in the economic impact model is provided throughout this report.



- 2.20 There are a number of caveats in the assessment. A few of the main caveats are set out below, whilst reference to others is made where relevant throughout the rest of the report:
- Reflecting the complexities of nuclear decommissioning described above, it is important to note the schedule for decommissioning at Dungeness A is subject to change going forward. However, for the purposes of this socio-economic assessment it has been assumed that the process will follow the schedule laid out in the current DICAM plan (correct in July 2011).
  - The data required to estimate the economic impact of Dungeness A has been collected from Magnox Ltd. However, it is important to note that much of the forward facing data – particularly that which focuses on later decommissioning phases – are based on high level estimates made by Magnox Ltd. Data regarding future impacts should therefore be regarded as illustrative of key trends rather than



as definitive and set in stone.

- For the purposes of this exercise, Dungeness A has been treated as a separate accounting centre. Magnox Ltd itself is a large company which is responsible for nine sites across the UK. There are a number of implications of this –
  - We have not sought to quantify any impacts relating to the activities of Magnox Ltd at a central level – such as the company’s corporate and HQ functions which are located at a central site in Gloucestershire. Despite this, it is important to note that day to day running of Dungeness A is the responsibility of the Dungeness A corporate team, which is located on site and thus has been included in the assessment
  - Magnox Ltd does not account for its profits at the individual site level – only at the overall company level. As a result, this assessment does not pick up on any profits (and associated economic impacts) made by Magnox Ltd as a result of its activities at Dungeness A. It has not been possible as part of this assessment to disaggregate overall company profit and allot it to the activity of an individual site such as Dungeness A.

### 3. Current Economic Role of Dungeness A

- 3.1 Since power generation began in the 1960s, Dungeness A has formed an integral part of the local economy. This chapter considers the current economic contribution of Dungeness A to local and wider economies. In doing so, specific consideration is given to the quantification of the direct, indirect and induced economic impacts.

#### Direct impacts

##### Employment Impacts

- 3.2 The economic role that the site plays locally is perhaps best illustrated by examining the scale and nature of employment that it provides.

##### Quantum of Employment

- 3.3 Total direct employment supported by Dungeness A averaged 432 in 2010/11 (equating to around 417 full time equivalent (FTE) positions). A number of different types of employment are supported by Dungeness A:

- Currently, the majority of the workforce is employed directly by Magnox Ltd – this core workforce averaged 354 in 2010/11 (equating to around 348 Full Time Equivalent position).
- The site also provides a number of positions for agency workers – there was an average headcount of 27 agency workers in 2010/11 (26 FTE positions).
- Reflecting the nature of the operations at Dungeness A and the changing demand for different skills and specialisms, sub contracting also plays an important role in day to day operations at Dungeness. The activities of Dungeness A directly supports both on site and off site sub-contractors. In 2010-11, we estimate that these numbered 24 (or 20 FTEs) and 28 (or 23 FTEs) respectively – a total sub-contractor count of 51 (43 FTEs)<sup>5</sup>.

- 3.4 It is important to note that more than the other types of employment, the number of sub-contractors required by Dungeness A fluctuates over time and according to the nature of on-site operations. This is especially the case during decommissioning – when an evolving and wide range of skills and specialisms are expected to be required. Anticipated future fluctuations in sub-contracting numbers are explored in the next section.

- 3.5 **In addition to the quantum of jobs, the nature and quality of jobs (in terms of skills and salary) is also important – this is considered in Chapter 4 of this assessment.**

##### Significance of Employment in Local Context

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<sup>5</sup> In some cases sub contracting employment could be treated as an indirect impact. However, for the purposes of this assessment it has been treated as a direct impact, given the important role that sub contracting plays in day to day operations at Dungeness A Site

- 3.6 Given the above, Dungeness A is an important provider of employment in the Romney Marsh area. All direct and on site employment at Dungeness A accounts for around a fifth of all jobs in Lydd ward (within which the site is located) and around 8% of all jobs in the wider Romney Marsh area<sup>6</sup>.

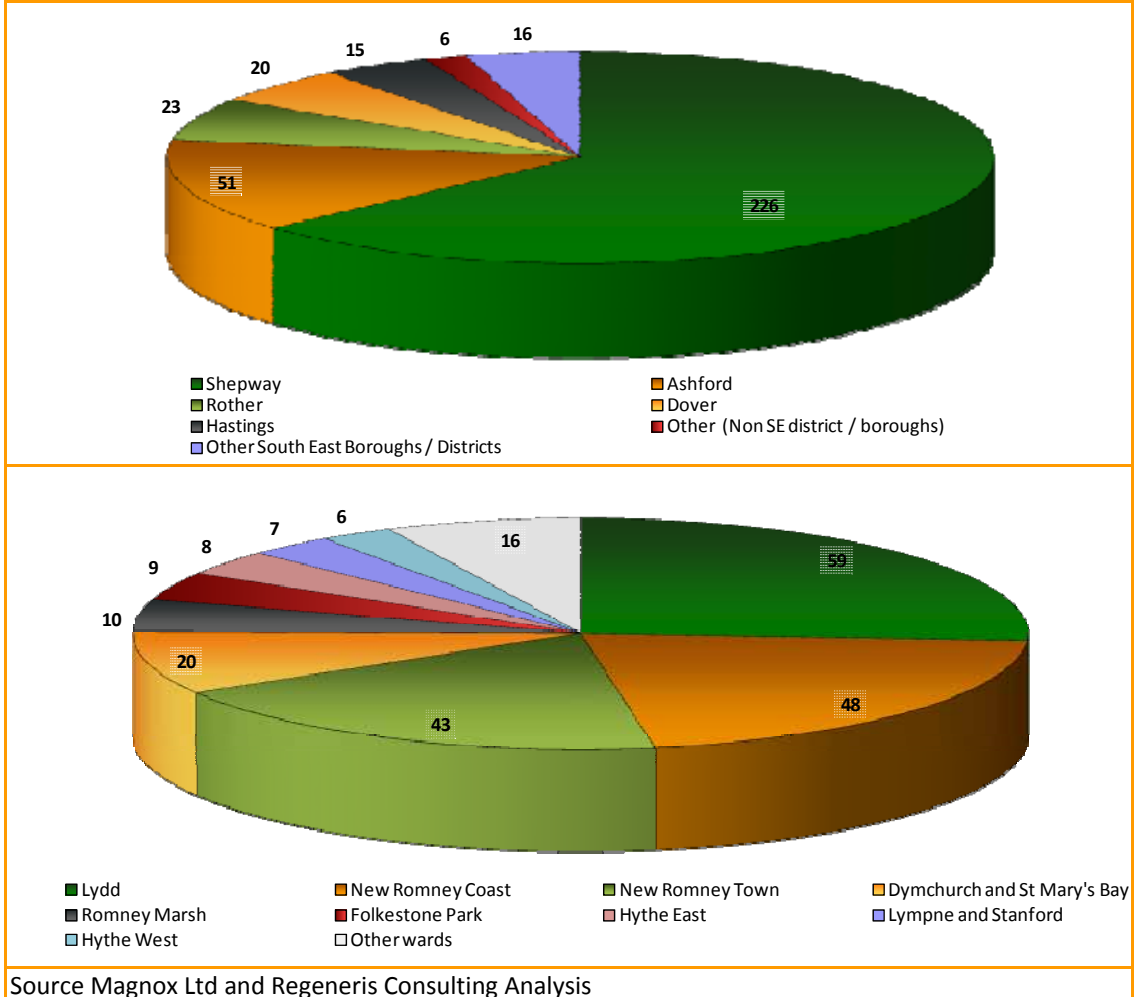
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Wider Geogs		Total Jobs	Dungeness A Direct Employment as a % of Total	Dungeness A - All Onsite Employment as a % of Total
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	Romney Marsh	4792	7%	8%
	Shepway	35,257	1%	1%
	Kent	540,097	0.1%	0.1%

Source: Magnox Ltd and Business Register and Employment Survey (BRES)

- 3.2 Possibly reflecting the geographically peripheral nature of Dungeness A, a high proportion of employees also live within the immediate local area:
- Nearly two thirds of Magnox Ltd employees working at the Dungeness A live within Shepway (226 employees in absolute terms). The majority of other employees live in neighbouring areas such as Ashford, Hastings and Rother.
  - Within Shepway, a high proportion of Magnox Ltd employees live in the Romney Marsh area, and in particular in New Romney (around 90 employees) and in Lydd (around 59 employees). A further 20 employees live in the Dymchurch and St Mary's Bay area.

<sup>6</sup> For the purposes of this assessment the wider Romney Marsh area has been defined as incorporating five Shepway wards – Lydd, Romney Marsh, New Romney Coast, New Romney Town and Dymchurch and St Mary's Bay

**Figure 3-1: Magnox Ltd Employees Working at Dungeness A – Headcount by District of Residence (top) and by Shepway ward of Residence (bottom)**



Source Magnox Ltd and Regeneris Consulting Analysis

- 3.7 These patterns are illustrated graphically in the maps below which uses postcode information to identify the places of residence of Magnox Ltd employees who work at Dungeness A:

Figure 3-2: Place of Residence of Current (2011) Workers Directly Employed at Dungeness A by Magnox Ltd



Source: Information from Magnox Ltd

## GVA and Exchequer Impacts

- 3.8 As suggested by the above, the operation of Dungeness A has clear and demonstrable impacts upon the functioning of both Romney Marsh and wider economies. In addition to these employment provision benefits, there are also benefits in terms of economic output (GVA) and benefits to the Exchequer.
- 3.9 The **GVA** impact can be described as a combination of **wages** received by those employed at Dungeness A, plus **profit** generated:
- Turnover and Profit – Now that power generation has ceased, all revenue at Dungeness A is provided by the NDA. In 2010/2011 total turnover at Dungeness A is estimated at £35.5million. As discussed previously, the nature and complexities of the UK decommissioning model means that profit generated by Magnox Ltd is not accounted at the Dungeness A level.
  - Employment Income – As discussed in the previous section, around 417 FTE positions are supported by activities at Dungeness A. This equated to an employment income (net salary costs plus PAYE and employee National Insurance Contributions) of £17.5 million. These employment figures exclude agency staff and sub contractors.
- 3.10 Based on these figures, it is estimated that in 2010/11, Dungeness A directly contributed GVA of £17.5 million to the UK economy.
- 3.11 Another measure of the economic contribution of Dungeness A to the UK economy is the level of contributions made to the Exchequer. As no profit is generated at Dungeness A, Exchequer Benefits comprise of employee and employer national insurance contributions, employee PAYE and VAT on goods and services. In 2010/11 total Exchequer Benefits to the UK economy are estimated at £14.8 million.

## Indirect Impacts of Dungeness A

- 3.12 Here, we consider the indirect impacts associated with the operation of Dungeness A. **Indirect Impacts** are sometimes referred to as supply chain impacts and are created as a result of expenditure on goods and services by Dungeness A and the subsequent chain of purchasing this supports throughout the economy.
- 3.13 Indirect Impacts for Dungeness A have been calculated based upon detailed information on the bought in goods and services provided by Magnox Ltd. Magnox Ltd purchases goods and services to support its ongoing activities at Dungeness A. These purchases are wide ranging in nature. An overview of the types of the purchases on goods and services made in the last financial year is set out in the table below which sets the largest 20 contracts and suppliers for Dungeness A.

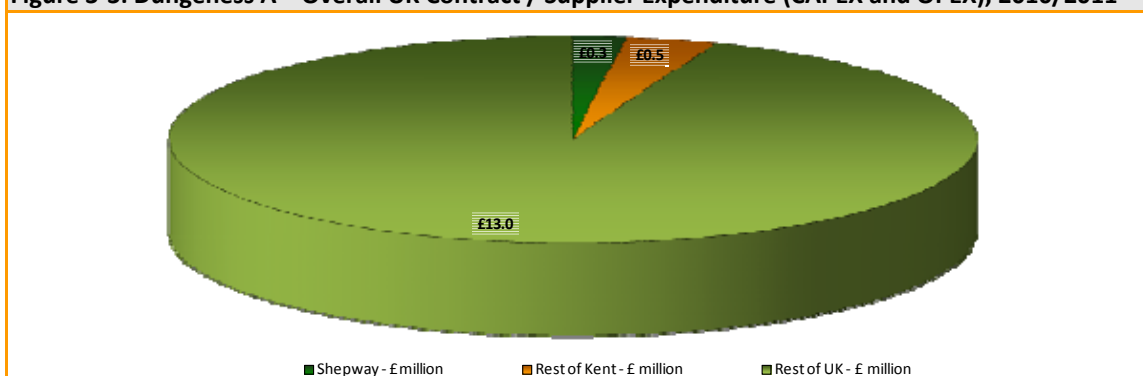


Table 3-2: Top Suppliers and Contracts, 2010-11		
Name of Supplier	Main Types of Goods & Services	Indication of Value of Goods and Services
Edf Energy Nuclear Generation	Cross Site Contracts - Security, Environmental Monitoring & Beach Feeding	Over £1 million
Promanex (Total FM & Environmental Services Ltd)	Civil works, Plant Cleaning, Office Cleaning, etc	
Civil Nuclear Constabulary	CNC Policing & HQ Charges	£0.5 million to £1 million
Hertel	Scaffolding & Lagging	
Energy Solutions EU Ltd	Management Services	
EDF Energy Cutstomers	Supply of Electricity	
Strachan & Henshaw Ltd	Supply of 9 Element Hoist Cables	
Capita Resourcing Ltd	Agency Supplied Workers - various disciplines	Less than £0.5 million
Jaobs Engineering	Contract Supplied Workers - various disciplines	
Moore Works Ltd	Contract Supplied Workers - various disciplines	
Environment Agency	Regulatory Fees	
Amco Engineering	Electrical Services	
Emo Oil Ltd	Fuel Oil for Package Boiler (Heating/hot water)	
Babcock Nuclear Ltd	AEWTP Sludge Grout Formulation, Dosimetry Services, Metrology Services, etc	
Rainham Industrial Services Ltd	Install replacement glazing in the Turbine Hall & other repair works	

Source: Based on Information from Magnox Ltd

- 3.14 In 2010/11, overall expenditure on contracts / suppliers (CAPEX and OPEX combined) was £13.8 million. Magnox Ltd estimates that almost all expenditure (99.7%) on bought in goods and services from tier 1 suppliers is sourced from within the UK. However, possibly partly reflecting the fact that Magnox Ltd operates sites through the UK (and hence is likely to have established national supplier chains), levels of local supply chain expenditure (in Kent and Shepway) are relatively low.

Figure 3-3: Dungeness A – Overall UK Contract / Supplier Expenditure (CAPEX and OPEX), 2010/2011



Source: Based on Information from Magnox Ltd

- 3.15 As highlighted by the table below, these relatively low levels of expenditure in Shepway and Kent consequentially result in relatively low levels of indirect economic impact

supported in these areas<sup>7</sup>.

Table 3-3: Dungeness A: Estimated Indirect Impacts, 2010/11			
	UK	Kent	Shepway
<b>Turnover</b>	£27.1 million	£1.0 million	£0.3 million
<b>GVA</b>	£10.2 million	£0.4 million	£0.1 million
<b>Employment</b>	178	6	2
<b>Employment Income</b>	£4.9 million	£0.2 million	£0.1 million
Source: Based on Magnox Ltd information and Regeneris Consulting Calculations			

## Induced Impacts of Dungeness A

- 3.16 **Induced Impacts** can also be estimated and these are associated with the local expenditure as a result of those who derive incomes from employment at Dungeness A.
- 3.17 Induced Impacts can be estimated at a range of geographical levels and are calculated by the application of induced employment multipliers. In this case we used multipliers of 1.3, 1.1 and 1.05 to estimate the induced impacts of Dungeness A for the UK, Kent and Shepway respectively<sup>8</sup>. The estimated induced impact is captured in the following table.

Table 3-4: Dungeness A: Estimated Induced Impact, 2010/11			
	UK	Kent	Shepway
<b>Turnover (£ million)</b>	£21.7 million	£6.3 million	£3.1 million
<b>GVA (£ million)</b>	£6.4 million	£1.9 million	£1.0 million
<b>Employment</b>	189	48	24
<b>Employment Income (£ million)</b>	£5.0 million	£1.3 million	£0.7 million
Source: Based on Magnox Ltd information and Regeneris Consulting Calculations			

## Summary - All Current Impacts

- 3.18 It is clear that Dungeness A is an important component of the local economy – especially in terms of the employment that it provides.
- 3.19 It is estimated that activities at Dungeness A directly support 432 jobs (including sub contractors) and GVA of £17.5 million.
- 3.20 When taking indirect and induced impacts into account, it is estimated that Dungeness A supports up to:
- Around 800 jobs and GVA of £34.1 million at the UK level
  - Around 490 jobs and GVA of around £19.8 million at the Kent level

<sup>7</sup> It is also important to note that there are always difficulties in assessing where expenditure is received – in some cases expenditure may be allotted to the address of a head office whilst not necessarily relating to that location. In this instance, due to a lack of detailed information, Magnox has estimated levels of expenditure in each location.

<sup>8</sup> These have been assumed using standard guidance and our own experience of similar assessments. The standard guidance is set out in the English Partnership Additionality Guide, accessed at <http://collections.europarchive.org/tna/20100911035042/http://englishpartnerships.co.uk/communitiespublications.htm>

● Romney Marsh Socio-Economic Impact Assessment ●

- Around 460 jobs and GVA of around £18.6 million at the Shepway level
- 3.21 The disparity between these figures are representative of the comparatively low levels of indirect impacts at the Kent and Shepway levels relative to at the UK level – the direct result of relatively low levels of supply chain expenditure by Dungeness A at the local level.
- 3.22 The economic contribution currently made by Dungeness A is summarised in the table below.

<b>Table 3-5: Dungeness A: Summary of Current Main Economic Impacts</b>				
	<b>Direct</b>	<b>Direct, Indirect and Induced</b>		
		<b>UK</b>	<b>Kent</b>	<b>Shepway</b>
<b>Turnover (£million)</b>	£35.5	£84.3	£42.8	£38.9
<b>GVA (£million)</b>	£17.5	£34.1	£19.8	£18.6
<b>Employment (inc sub contractors)</b>	432	799	486	458
<b>Gross emp income (£million)</b>	£17.5	£27.4	£19.0	£18.2
<b>Exchequer (£million)</b>	£14.8	N/A	N/A	N/A
Source: Based on Magnox Ltd information and Regeneris Consulting Calculations				

## 4. Economic Impacts of Decommissioning

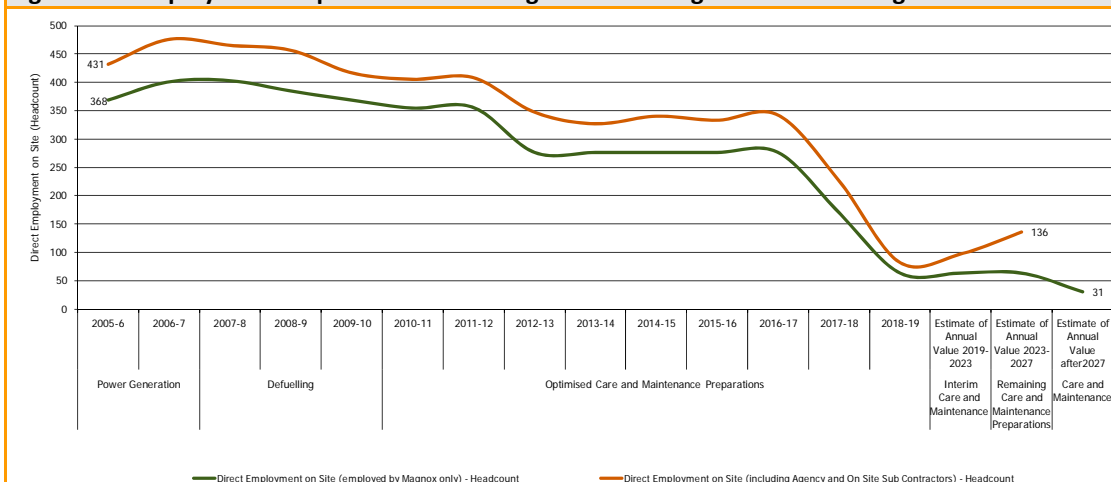
- 4.1 This section considers how the economic impact of Dungeness A is likely to evolve as the decommissioning process progresses.

### Changing Direct Impacts during Decommissioning

#### Employment Impacts

- 4.2 As highlighted in the previous section, the activities of Dungeness A currently support around 405 FTE positions (including on-site Magnox Ltd employees, agency staff and sub contractors). This position is projected to change substantially over the decommissioning period.
- 4.3 Magnox Ltd was able to provide estimates of likely employment requirements at Dungeness A during decommissioning. A number of clear headlines emerge from analysis of this information:
- The decommissioning process to date has resulted in a small decline in the overall number of positions at the site. In the final year of power generation (2006/7), the number of Magnox Ltd employees on site averaged 400 – compared to an average of 354 in 2010/11.
  - It is estimated that the headcount of those employed directly by Magnox Ltd at Dungeness A will continue to fall steadily in coming years, with the workforce expected to number 31 in 2027 – a decline of 323 positions (-91%) from current levels. The largest decline of employees directly employed by Magnox Ltd is currently projected to take place from 2017-2019, when the employee level will fall from around 346 to 83 (263 positions).
  - The period to 2019, requirements for agency staff and sub contractors are projected to largely mirror requirements for Magnox Ltd employees, with an overall decline in positions supported. In the period after 2019, however, the demand for agency staff and sub contractors is projected to increase for a short period. This reflects an upsurge in activity on site as final preparations are made before the final phase of decommissioning.
- 4.4 The direct projected employment impacts of the decommissioning process at Dungeness A are set out below. The chart presents data separately for all onsite employment (which includes Magnox Ltd employees, Agency Staff and Onsite sub contractors) and Magnox Ltd employees onsite only.

**Figure 4-1: Employment Requirements for Dungeness A During Decommissioning**



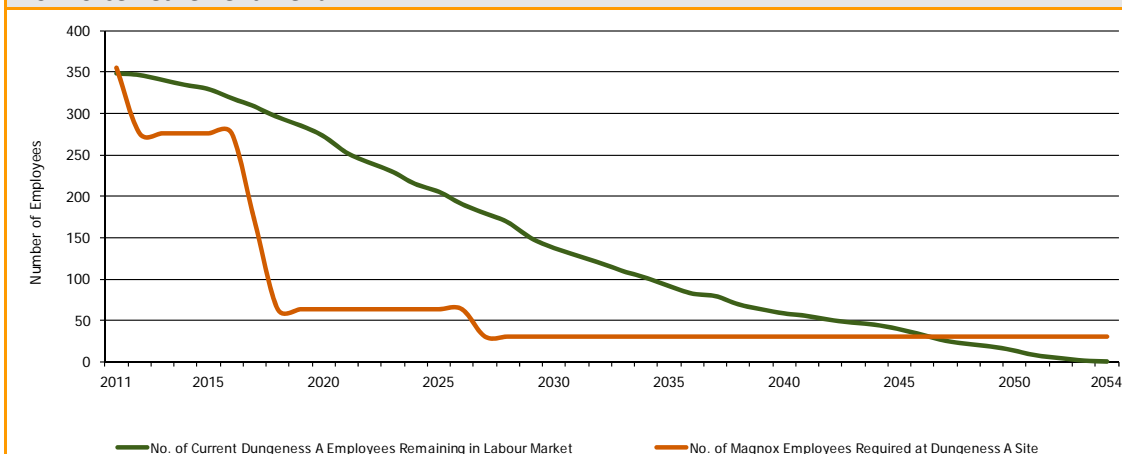
NOTE: Data not available to calculate sub contractor headcount for the final period

Source: Based on Magnox Ltd Information and Regeneris Consulting Calculations

4.5 Given the relatively long timescales involved in the decommissioning process, it is important to note that job losses at Dungeness A will not map directly across as additional supply in the labour market. Analysis of the demographic information highlights a relatively even age profile across the current Magnox Ltd workforce at Dungeness A. Assuming an average retirement age of 65 (although this is clearly expected to change in the future), the last member of the current workforce would be expected to naturally leave the labour market in 2054 – 40 years before the current expected end of decommissioning. This analysis serves to highlight a number of points:

- As discussed previously, the largest decline in employment is currently projected for 2017-19, when it is estimated that around 263 positions will be lost. However, it is estimated that by 2019, 67 of the current workforce will have reached retirement age, thus potentially lessening the absolute scale of the shock to the local economy.
- It is important to bear in mind that despite the overall projected decline in employment at Dungeness A, as a result of retirement and more general natural turnover in the workforce, there will continue to exist a demand for **replacement labour**. It is important that the local labour market is able to continue to meet this replacement demand
- Crucially, however, it is clear that the scale of the demand for replacement labour going forward will be significantly lower than it is currently. This has important implications for the local area – the loss of opportunity at Dungeness A is likely to lessen the appeal of the Romney Marsh area to the labour market, potentially resulting in migratory flows away from the area. *These issues are examined in more detail in the accompanying Romney Marsh Socio-Economic Action Plan.*

**Figure 4-2: Projected Employment Requirements at Dungeness A Mapped Against Current Workforce Retirement Trend**



NOTE: This chart is for illustrative purposes only. It assumes an average retirement age of 65 (currently set to change) and does not take into account churn in the workforce.

Source: Based on Magnox Ltd Information and Regeneris Consulting Calculations

- 4.6 In considering the potential impacts of decommissioning on employment, it is also important to note that mechanisms and agreements have been put in place to help to transfer some of those made redundant by decommissioning at Dungeness A into employment elsewhere in the nuclear industry. These include:
- Mechanisms have been put in place between Magnox Ltd and EDF to facilitate the transfer of redundant staff where possible. However, this is a national agreement and whilst obviously a valuable intervention for employees, the potential loss of economically active and highly skilled residents represents a risk to the Romney Marsh economy.
  - It has also been suggested that some Magnox Ltd employees who have gained experience in decommissioning processes at Dungeness A could be retained by Magnox Ltd, putting into practise their experience and expertise at other Magnox Ltd sites which are undergoing decommissioning.

## Economic Impacts – GVA and Exchequer Benefits

- 4.7 As discussed previously, now that power generation has ceased, all revenue at Dungeness A is provided by the NDA. Turnover is currently projected to fluctuate as decommissioning progresses. Annual turnover is projected to average £42.7 million for the 2011-2019 period, £9.6 million for the 2019 to 2023 period, £37.8 million for the 2023-2027 period, before declining to around £2.6 million thereafter. This represents an overall decline in turnover of 93% from current levels to levels post 2027 (the start of the care and maintenance programme).
- 4.8 The impacts of the decommissioning process at Dungeness A in terms of direct turnover and GVA and Exchequer Benefits are set out below. As discussed previously, any profit generated by Magnox Ltd's activities across the UK is not disaggregated and accounted for at the Dungeness A level. In the absence of profit, GVA mainly reflects employment costs.



4.9 The charts highlight that after a series of fluctuations, direct economic impacts relating to Dungeness A will drop to a relatively low level by 2027. It is estimated that in 2027:

- Turnover will total around £2.6 million – a decline of around 93% from 2010/11 levels
- GVA will total around £2.2 million– a decline of around 88% from 2010/11 levels
- Exchequer Benefits will total around £1.6 million – a decline of around 90% from 2010/11 levels.

**Figure 4-3: Total Direct Turnover (top), GVA (middle) and Exchequer Benefits (bottom) directly attributable to Dungeness A, 2010-11 to 2027 and beyond**



Source: Information from Magnox Ltd

## Changing Indirect Impacts During Decommissioning

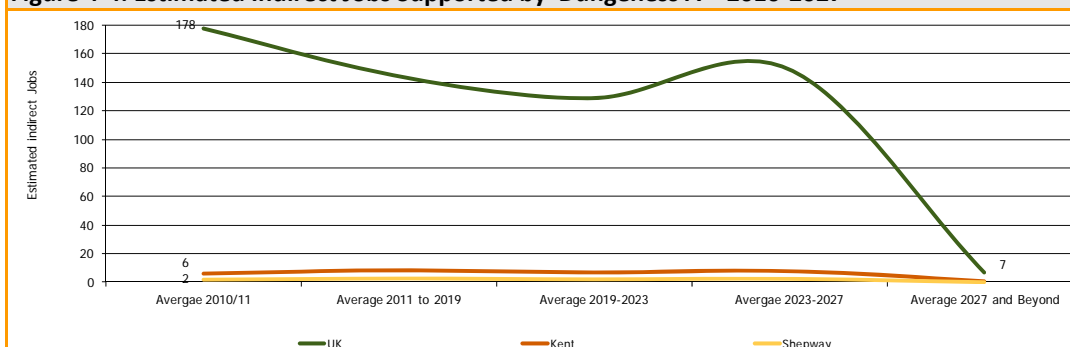
- 4.10 As would be expected given the varying scale and nature of activities during the decommissioning period, expenditure on bought in goods and services associated with Dungeness A is expected to fluctuate over the coming decade, before finally declining to a comparatively low level in the period after 2027. It is anticipated that levels of supply chain expenditure in the Shepway and Kent areas will remain relatively low.

Table 4-1: Summary of Expenditure (CAPEX and OPEX Combined)		All	UK		Kent		Shepway	
		£ million	£ million	% of Total	£ million	% of Total	£ million	% of Total
Last Financial Year	2010-11	13.8	13.8	99.8%	0.8	6.0%	0.3	2.4%
Optimised Care and Maintenance Preparations	2011-12	21.1	21.0	99.8%	1.3	6.0%	0.5	2.3%
	2012-13	20.8	20.8	99.8%	1.2	6.0%	0.5	2.4%
	2013-14	17.0	16.9	99.8%	1.0	6.0%	0.4	2.4%
	2014-15	19.6	19.6	99.8%	1.2	6.0%	0.5	2.4%
	2015-16	20.0	20.0	99.8%	1.2	6.0%	0.5	2.4%
	2016-17	19.3	19.2	99.8%	1.1	6.0%	0.5	2.4%
	2017-18	22.6	22.5	99.8%	1.3	6.0%	0.5	2.4%
	2018-19	15.5	15.5	99.8%	0.9	6.0%	0.4	2.4%
Interim Care and Maintenance	Estimate of Annual Value 2019-2023	15.7	15.7	99.8%	0.9	6.0%	0.4	2.4%
Remaining Care and Maintenance Preparations	Estimate of Annual Value 2023-2027	18.2	18.2	99.8%	1.1	6.0%	0.4	2.4%
Care and Maintenance	Estimate of Annual Value after 2027	0.8	0.8	99.7%	0.0	6.0%	0.0	2.4%

Source: Based on Information Provided by Magnox Ltd

- 4.11 Reflecting the above trends in projected expenditure, indirect employment impacts relating to Dungeness A are likely to decline significantly over the coming two decades.
- 4.12 The chart below highlights changes in estimated levels of indirect employment supported going forward.

Figure 4-4: Estimated Indirect Jobs Supported by Dungeness A – 2010-2027



Source: Based on Magnox Ltd Information and Regeneris Consulting Calculations

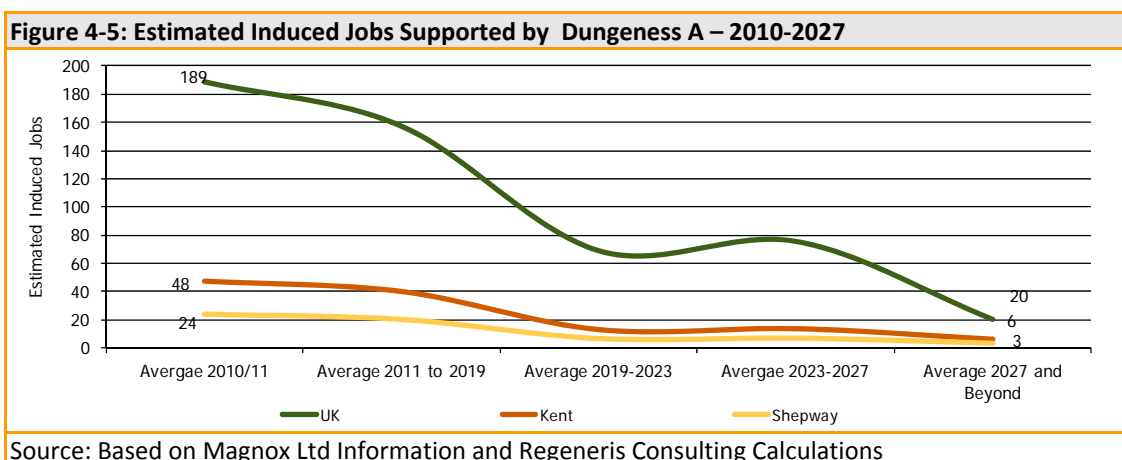
- 4.13 The table below projects changes in wider economic indirect impacts supported going forward:

Table 4-2: Estimated Indirect Economic Impacts Supported by Dungeness A – 2010-2027						
£ million		Average 2010/11	Average 2011 to 2019	Average 2019-2023	Average 2023-2027	Average 2027 and Beyond
UK	Turnover	£27.1	£19.4	£15.7	£18.2	£0.8
	GVA	£10.2	£7.8	£6.9	£8.0	£0.4
	Employment Income	£4.9	£4.0	£3.5	£4.1	£0.2
Kent	Turnover	£1.0	£1.4	£1.2	£1.3	£0.1
	GVA	£0.4	£0.5	£0.4	£0.5	£0.0
	Employment Income	£0.2	£0.2	£0.2	£0.2	£0.0
Shepway	Turnover	£0.3	£0.5	£0.4	£0.5	£0.0
	GVA	£0.1	£0.2	£0.1	£0.2	£0.0
	Employment Income	£0.1	£0.1	£0.1	£0.1	£0.0

Source: Based on Magnox Ltd Information and Regeneris Consulting Calculations

### Changing Induced Impacts During Decommissioning

- 4.14 As is the case with direct and indirect impacts, it is anticipated that induced impacts relating to Dungeness A will decline substantially during the next phases of decommissioning.
- 4.15 The impact of the decommissioning process on the estimated number of induced jobs supported by activities at Dungeness A is set out in the chart below:



- 4.16 Changes in the expected levels of wider economic induced impacts during decommissioning are set out in the table below.

Table 4-3: Estimated Induced Economic Impacts Supported by Dungeness A – 2010-2027 and Beyond						
£ million		2010/11	Annual Average 2011 to 2019	Annual Average 2019-2023	Annual Average 2023-2027	Annual Average 2027 and Beyond
UK	Turnover	£21.7	£18.1	£7.9	£8.6	£2.3
	GVA	£6.4	£5.3	£2.3	£2.6	£0.7
	Employment Income	£5.0	£4.2	£1.8	£2.0	£0.5
Kent	Turnover	£6.3	£5.3	£1.7	£1.8	£0.8
	GVA	£1.9	£1.6	£0.5	£0.5	£0.2
	Employment Income	£1.3	£1.1	£0.4	£0.4	£0.2
Shepway	Turnover	£3.1	£2.6	£0.8	£0.9	£0.4
	GVA	£1.0	£0.8	£0.3	£0.3	£0.1
	Employment Income	£0.7	£0.5	£0.2	£0.2	£0.1

Source: Based on Magnox Ltd Information and Regeneris Consulting Calculations

## Summary of Changing Impacts during Decommissioning

- 4.17 The projected changing economic impact of Dungeness A during decommissioning is summarised in the table below:

Table 4-4: Dungeness A – Changes in Direct Economic Benefits during Decommissioning					
	Average 2010/11	Annual Average 2011 to 2019	Annual Average 2019-2023	Annual Average 2023-2027	Annual Average 2027 and Beyond
Turnover (£million)	£35.5	£42.3	£9.6	£37.8	£2.6
GVA (£ million)	£17.5	£14.7	£4.6	£4.8	£2.2
Jobs (inc sub contractors)	432	334	121	192	31* – see note below
Exchequer (£ million)	£14.8	£17.9	£4.3	£14.6	£1.6

\*NOTE: Data constraints mean that it has not been possible to estimated the number of sub contractors post 2027. As such, for this time period, employment only reflects those directly employed by Magnox Ltd.

Source: Based on Magnox Ltd Information and Regeneris Consulting Calculations

- 4.18 The table below summarises the changing nature of all impacts (including direct, indirect and induced impacts) during decommissioning:

Table 4-5: Dungeness A – Changes in Total Direct, Indirect and Induced Impacts during Decommissioning						
		Average 2010/11	Average 2011 to 2019	Average 2019-2023	Average 2023-2027	Average 2027 and Beyond
UK	Turnover (£million)	£84.3	£79.8	£33.2	£64.7	£5.6
	GVA (£ million)	£34.1	£27.8	£13.8	£15.4	£3.2
	Jobs (inc sub contractors)	799	635	319	417	57* – see note below
	Gross emp income (£ million)	£27.4	£22.8	£9.9	£10.9	£2.9
Kent	Turnover (£million)	£42.8	£49.0	£12.5	£41.0	£3.4
	GVA (£ million)	£19.8	£16.8	£5.5	£5.8	£2.4
	Jobs (inc sub contractors)	486	382	141	213	37* – see note below
	Gross emp income (£ million)	£19.0	£16.0	£5.1	£5.4	£2.3
Shepway	Turnover (£million)	£38.9	£45.4	£10.8	£39.2	£3.0
	GVA (£ million)	£18.6	£15.6	£4.9	£5.2	£2.3
	Jobs (inc sub contractors)	458	356	130	201	34* – see note below
	Gross emp income (£ million)	£18.2	£15.3	£4.8	£5.0	£2.2

\*NOTE: Data constraints mean that it has not been possible to estimate the number of sub contractors post 2027. As such, for

this time period, employment only reflects those directly employed by Magnox Ltd, along with indirect and induced jobs supported

Source: Based on Magnox Ltd Information and Regeneris Consulting Calculations

- 4.19 At headline level it is clear that the decommissioning process will result in a significant decline in the levels of direct, induced and indirect economic impacts that result from the operations of Dungeness A. Previous analysis highlighted the dependence of the local (Romney Marsh and Shepway) economy and population on the jobs provided by Dungeness A – and reflecting this, it is clear that the decommissioning process will impact upon these areas in a disproportionate way. However, as discussed above, the timescales involved in decommissioning are significant in that they allow for an adjustment process to take place in the local economy.
- 4.20 From the above analysis, there are a number of other clear headlines regarding the projected changes in economic impact resulting from Dungeness A decommissioning and which are important to bear in mind going forward:
- The largest decline in the number of employees directly employed by Magnox Ltd is currently projected to take place from 2017-2019, when the direct employee level will fall by around 260 positions. This time period clearly represents a pivotal juncture going forward for the local economy and population.
  - In the period after 2019, however, the demand for agency staff and sub contractors is projected to increase for a short period, as final preparations are made before the Care and Maintenance phase of decommissioning commences. This phase is expected to involve an upsurge in activity on site and in particular the carrying out of a number of specialist tasks / activities – hence the requirement for specialist support from sub-contractors
  - These factors highlight that the decommissioning process represents less of a sudden and sharp shock to the Romney Marsh and Kent economies than for example the recently announced closure of Pfizer at Sandwich. The overall length of the decommissioning process and varied nature of the different phases of activity means that Dungeness A will continue to exert an impact on the local economy going forward – although the level of this impact will taper off and decline in the period to 2027.
  - Reflecting this, Dungeness A will continue to require resource and manpower throughout the 90-100 year lifespan of decommissioning, albeit at a much reduced scale post 2027. It is important that the local economy is able to continue to service and take advantage of these needs.
  - The overall impacts of decommissioning in terms of employment are likely to be offset to a certain extent by a number of additional considerations –
    - Not all those workers made redundant will be looking to re-enter the labour market – as discussed in this section, for example, some of those at risk from redundancy are nearing retirement age.



- Certain mechanisms and agreements have been put in place to allow the internal transfer of staff made redundant by decommissioning at Dungeness. These include the potential for internal staff transfers within Magnox Ltd (which build upon expertise and experience in decommissioning processes) and external staff transfers between Magnox Ltd and EDF. However, these transfers would take place on a national scale and whilst obviously a valuable intervention for employees, the potential loss of economically active and highly skilled residents represents a risk to the Romney Marsh economy.
  - Crucially, however, it is clear that the scale of the demand for replacement labour going forward will be significantly lower than it is currently. This has important implications for the local area – the loss of opportunity at Dungeness A is likely to lessen the appeal of the Romney Marsh area to the labour market, potentially resulting in migratory flows away from the area. This is examined in more detail in the accompanying Romney Marsh Socio-Economic Action Plan.
  - At face value, the relatively low levels of direct expenditure in the local economy by Dungeness A would suggest that the impact of decommissioning on local suppliers / businesses would be relatively minor. However, anecdotal evidence suggests that there are some parts of the local economy which are reliant on the activities of Dungeness A – in particular, the local guest houses, restaurants and a range of other local service businesses which currently benefit year round from the high number of sub-contractors / temporary workers staying in the area. Locating these and helping them to adjust will be key going forward.
- 4.21 These factors – and in particular the wider adjustment process – are considered in more detail in the accompanying Romney Marsh Socio-Economic Plan.

## 5. Wider Considerations

5.1 In addition to the quantifiable economic impacts associated with the decommissioning of Dungeness A, there are also a number of wider considerations to take into account when considering future local socio-economic performance in Romney Marsh. These include:

- The Nature and Quality of Employment Supported
- Impact on Training Provision
- Longer term events such as the decommissioning of Dungeness B.

### The Nature and Quality of Employment Supported

5.2 The previous sections quantified the important contribution that Dungeness A makes to the local economy in terms of the provision of employment. However, it is not just the quantum of jobs which is important – the nature, quality and earnings of the jobs are also important considerations.

5.3 Significantly, jobs supported by Dungeness A are typically full time, year round positions which have provided relatively secure employment over a long time period. As highlighted by the previous analysis, the number of FTE positions supported by Dungeness A is similar to the total headcount – reflecting the fact that the majority of the positions provided are full time. This is an important factor and benefit to the local economy, given that rural and coastal areas are often characterised by industries which provide a lot of seasonal / temporary and part time work.

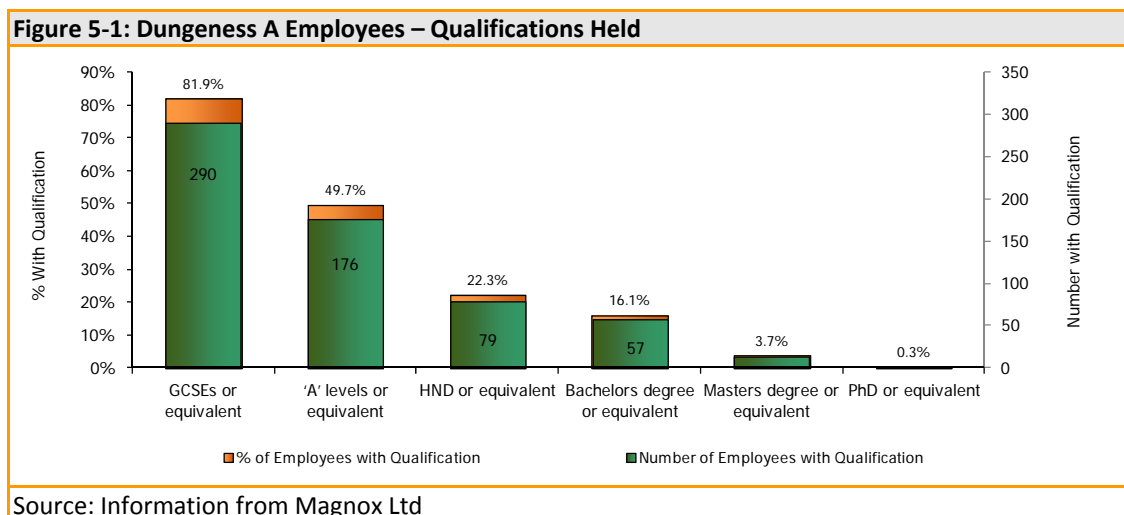
5.4 As would be expected given the nature of activities involved in nuclear power generation and decommissioning, the core workforce at Dungeness A is highly skilled and specialised in nature. However, it is also important to note that in addition to these highly skilled workers, Dungeness A also provides other employment opportunities for workers with a relatively wide range of skills. This is significant as it means that jobs supported by the site are accessible to people with a wide range of skills and occupations in the local population. The table below highlights the wide range of activities taking place at Dungeness A and as a result the range of occupations / skills that are required – from the senior managerial down to technical and elementary positions.

Team	Typical Occupations	No.	% of All
Lead Team	Professionals, managers and Graduates	13	3%
Production	Managers, technical and engineering	130	34%
Engineering	Managers, engineers, scientists, technical specialists	76	20%
Operations	Managers, engineers	38	10%
Contracting	Professional and managerial	36	9%
Finance	Professional and managerial	26	7%
Waste Management	Managers, engineers	20	5%
Projects	Managers, engineers, technicians	14	4%

Security	Elementary	2	1%
Health	Professionals	1	0%
HR	Professional and administrative	19	5%
Admin	Administrative	6	2%

Source: Information from Magnox Ltd

- 5.5 The range of skills required is further exemplified by analysis of the highest qualification of Magnox Ltd staff at A Site. As highlighted by the chart below, Dungeness A provides employment for workers with skills ranging from high level academic to technical and vocational.



## Impact on Training Provision for Local Residents

- 5.6 Whilst not necessarily a primary impact, it is important to recognise that role that Dungeness A plays in upskilling employees and hence the fact that the decommissioning process will result in the loss of a training mechanism for Romney Marsh residents.
- 5.7 Given the nature of the activities taking place at Dungeness A, upskilling and training of staff is taken very seriously by Magnox Ltd. The chart below summarises training expenditure in recent years at Dungeness A, and the total annual number of in-house and external training days received by staff.

**Table 5-2: Training of Employees and Contractors at Dungeness A**

	2005-6	2006-7	2007-8	2008-9	2009-10	2010-11
<b>Training Expenditure (£000s)</b>	200	400	340	550	120	220
<b>Total no. of training days in-house</b>	3,560	2,950	2,880	3,040	2,550	2,730
<b>Total no. of training days externally</b>	370	550	860	540	920	450
<b>Total persons trained (incl. contractors)</b>	580 (300)	580 (260)	530 (190)	760 (400)	610 (250)	640 (250)

Source: Information from Magnox Ltd

- 5.8 Magnox Ltd also notes that it is currently enabling 1 staff member to train towards a post graduate qualification, 4 staff members to train towards degree level qualifications and 11 staff members to train towards vocational qualifications.

## The Future Impact of Decommissioning at Dungeness B on the Local Economy

- 5.9 As previously mentioned, it is currently anticipated that Dungeness B will continue to generate power until either 2018 or 2023 whence it too will begin the decommissioning process. The decommissioning of Dungeness B will result in further socio-economic impacts on the local population – as with Dungeness A, these need to be understood and where necessary mitigated against.
- 5.10 In the scope of this work it has not been possible to access detailed information about the Dungeness B and as a result this work does not seek to analyse the likely impact of decommissioning at Dungeness B in detail. However, consultation with the Station Director at B has highlighted the important role that the facility plays in the Romney Marsh area:
- **Current Economic Impacts** – Dungeness B currently employs a workforce numbering 554 and contributes an estimated £29 million into the local economy.
  - **Current Social and Community Impacts** – Dungeness B employs 27 apprentices and also annually take on 12 work experience pupils. The site also offer a talk service and support education and curriculum activities for pupils and students supports local clubs, local community projects, activities and events through sponsorship and donations.
- 5.11 This information highlights that taken together Dungeness A and Dungeness B directly employ over 700 people – not including the sub-contractors supported. Dungeness A and B combined account for roughly 45% of jobs in Lydd ward and around 20% of employment in the Romney Marsh area.
- 5.12 Detailed plans for the decommissioning of Dungeness B are yet to be laid out. However, it is likely that the decommissioning process – whether commencing in 2018 or 2023 – will broadly follow a similar pattern as that being played out at Dungeness A. As such, it is unlikely that the start of decommissioning will result in the loss of a high number of jobs. However, job losses should be expected throughout the 2020s and 2030s as the early stages of decommissioning are completed.
- 5.13 It will be important for detailed analysis of the likely impacts of decommissioning – and perhaps more importantly the phasing of impacts – to be undertaken when the initial decommissioning plan has been published. In the interim period, however, it will be important that any actions taken to mitigate against the impacts of decommissioning at Dungeness A are designed in the context and understanding of future operations at Dungeness B. This is considered in more detail in the accompanying Romney Marsh Socio-Economic Action Plan.

## 6. Next Steps

- 6.1 This report establishes a full understanding of the role that Dungeness A plays in local and sub regional economic performance and to how this might change going forward. Based upon this understanding – and building upon detailed consultation with local stakeholders – a second study has been undertaken which examine possible responses to the impacts of decommissioning.
- 6.2 The future facing *Romney Marsh Socio-Economic Action Plan* accompanies this report and presents specific priorities, actions, and interventions targeted at strengthening and building economic performance in Romney Marsh going forward.



**Regeneris Consulting Ltd**

**London Office**  
**70 Cowcross Street**  
**London, EC1M 6EJ**  
**Tel: 0207 608 7200**  
**Email: [london@regeneris.co.uk](mailto:london@regeneris.co.uk)**

**Manchester Office**  
**One Ashley Road**  
**Altrincham, Cheshire**  
**WA14 2DT**  
**Tel: 0161 926 9214**