European Offshore Wind Deployment Centre

Environmental Statement

Appendix 23.1: Socio-economics, Recreation and Tourism Baseline Technical Report

A project part-funded by the European Union under the European Economic Plan for Recovery in the field of Energy

Bringing You the Power of One™

Socioeconomic, Recreation and Tourism Assessment of the European Offshore Wind Deployment Centre:

Baseline Report

Aberdeen Offshore Wind Farm Limited

May 2011

Ref: 1112D600

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1.0 Abbreviations

- ACSEF – Aberdeen City and Shire Economic Future
- AOWFL – Aberdeen Offshore Wind Farm Limited
- EOWDC – European Offshore Wind Deployment Centre
- GVA / Gross Value Added – a measure of the economic value of a job or economic activity
- GW – Gigawatt, a measure of electrical generation capacity, equivalent to 1 billion Watts
- LQ / Location Quotient – a measure of industrial specialisation. Location quotients measure whether a region has a particular specialism in an industry or trade, and are calculated by dividing the proportion of employees in a certain industry in the Inner Study Area by the corresponding proportion of employees in the sector in a benchmark area (e.g. Scotland). A location quotient greater than one, indicates that the Inner Study Area has a specialism within that industry, relative to the benchmark area.
- MW – Megawatt, a measure of electrical generation capacity, equivalent to 1 million Watts
- OWIG – Offshore Wind Industry Group
- SIC – Standard Industrial Classification, a system used by the Office of National Statistics to classify economic activities by industry type
- STW – abbreviation for Scottish Territorial Waters

2.0 Information for the Non-Technical Summary

2.1 Aberdeen Offshore Wind Farm Limited (AOWFL) is proposing to develop an offshore wind farm and deployment centre off the coast of Aberdeen, known as the European Offshore Wind Deployment Centre (EOWDC). DTZ has been commissioned by AOWFL to undertake a socioeconomic, recreation and tourism impact assessment of the proposed EOWDC. The scope of the assessment is the Inner Study Area (Aberdeen and Aberdeenshire), Wider Study Area (Scotland), and the UK.

2.2 There is a significant renewable energy resource in Scotland, coupled with a high level of government commitment to renewable energy generation. The Scottish Government is committed to achieving a headline target of 20% of total Scottish energy use from renewable sources by 2020. Scotland has a quarter of Europe's offshore wind potential. The Crown Estate has granted exclusive development rights for 11 offshore wind zones in Scotland. The project has been successful in gaining EU funding of up to €40m from the European Economic Recovery Plan. This award is in recognition of the project's potential role in supporting development of the European offshore wind industry by proving technologies and techniques.

2.3 At a local level, Aberdeen City and Aberdeenshire recognise the importance of the energy sector to the local economy. The 'Energetica' project has been developed which sets out a vision as to how the Inner Study Area can see energy, tourism, other industries and quality of life factors combine to raise the profile and economic performance of the region.

2.4 The Inner Study Area can be characterised as follows:

- A population of 457,300 people in 2009, which has grown by 4.8% since 2003 (a faster rate than the UK or Scotland)
- High levels of employment in the working age population (79.4% of the working age population are employed, compared to 71.9% in Scotland)
- Low level of unemployment (2.8% in the Inner Study Area compared to 7.1% in Scotland)
- A highly qualified workforce (24% of the workforce is degree qualified, compared to 20.5% in Scotland)
- The Inner Study Area is less dependent on public sector employment than other parts of Scotland. The Inner Study Area has a significant Oil and Gas sector – comprising 25,700 workers, and accounting for over 60% of UK employment in the oil and gas industry. This provides a firm foundation for development of new energy sources such as offshore wind, given the complementarity of skills required.
- The three principle ports within the Inner Study Area are Aberdeen, Peterhead, and Fraserburgh. Aberdeen Port is the major supply base for the North Sea oil industry and employs around 11,000 people; whilst Peterhead landed 149,200 tonnes of fish in 2009 valued at £118 million (27% of the total Scottish market).
- 1.5 million tourist trips were made to Aberdeen and Grampian in 2009, contributing £344 million of expenditure to the local economy. The region attracts a high number of Scottish and UK tourists. A relatively high proportion of tourist trips into the region relate to business tourism – almost three quarters of visitors to Aberdeen City are business-related. The most significant tourism investment in the inner study area is the Trump Corporation's investment at Menie Estate which will increase tourist income in coming years.
- The coastline of the Inner Study Area is used for a variety of recreational activities including sailing (although only to a moderate extent relative to other parts of Scotland), sea angling, surfing, canoeing, kayaking, windsurfing and kite surfing. Fraserburgh is a particularly popular surfing location and regularly holds surf competitions and events such as the UK Surf Tour and Fraserburgh Surf Festival.

2.5 Looking forward, the Inner Study Area is expected to experience a weak recovery from the recession. Forecasts show that the economy is expected to grow by an average of 2.7% per annum in the period 2011-2015 in the Inner Study Area, compared to 2.9% in Scotland, and 3.4% in the UK. Employment in the Inner Study Area is expected to decline by 12,100 jobs from 2008 to 2011; after which it is expected that there will be a gradual recovery, with job numbers increasing by 6,000 in the period 2011 to 2018. Over the period 2008-2018 as a whole, the worst affected industries in terms of job losses are expected to be Manufacturing and Oil and Gas industries.

3.0 Introduction

3.1 Aberdeen Offshore Wind Farm Ltd (AOWFL) is proposing to develop an offshore wind farm and deployment centre off the coast of Aberdeen, known as the European Offshore Wind Deployment Centre (EOWDC).

3.2 The proposed project would combine a small commercially operated wind farm with a test and research centre, allowing manufacturers to test “first of run” wind turbines and innovative foundation solutions along with related operation and maintenance access logistics.

3.3 DTZ has been commissioned by AOWFL to undertake a socioeconomic, recreation and tourism impact assessment of the proposed EOWDC. The structure of the assessment can be summarised as follows:

- **Baseline Technical Report (this document)** – this provides a summary of the policy context with regard to offshore renewables in Scotland; and a baseline of indicators related to socioeconomics, recreation and tourism within Aberdeen City and Aberdeenshire.
- **EIA Technical Report** – an assessment of the impact that the proposed EOWDC will have upon socioeconomics, recreation and tourism in the study areas, as described below.

3.4 The scope of this assessment is to consider the impacts of the development across the following areas:

- **Socioeconomic** – employment and economic impacts associated with the construction, operation and decommissioning of the project, including supply chain and income effects
- **Tourism** – considering the impact on tourism in the local area
- **Recreation** – considering the impact on coastal recreational activities
- **Research and Development** – considering the possible impact of the deployment centre on the UK offshore wind industry as a whole, due to the opportunity for research, development and testing of equipment.

3.5 For the purposes of this assessment, the study area has been defined as follows:

- **Inner study area**: the two local authority areas of Aberdeen City and Aberdeenshire, the development will pose direct impacts to this area
- **Wider study area:** Scotland as a whole
- **UK**: potential national impacts, such as the impact on the offshore wind industry as a whole

Consultation

3.6 DTZ consulted with the following individuals in April 2011 (all by phone) to inform the Baseline Assessment and Impact Assessment:

- Colin Parker, Chief Executive, Aberdeen Harbour

- Matt North, Port Manager for the Port of Dundee, Forth Ports
- Steven Paterson, Chief Financial Officer, Peterhead Port Authority
- Eric May, Marine Renewable Section Leader, Marine Scotland
- Robert Forbes, Aberdeen City Council
- Eric Wells, Aberdeenshire Council
- Roddy Mathieson, Aberdeenshire Council
- Alistair Reid, Aberdeenshire Council
- Paul Reynolds, Offshore Wind Development Manager, RenewableUK
- Sara Budge, Project Director, Energetica
- Dr Graham Russell, RYA Scotland

Key Guidance Documents

3.7 This assessment has been undertaken based on the following guidance on economic assessment:

- HM Treasury (2003) Green Book
- BIS (2010) Impact Assessment Guidance
- English Partnerships (2008) Additionality Guide: Third Edition
- BIS (2009) Guidance for Using Additionality Benchmarks in Appraisal
- Surfers Against Sewage (2009) Guidance on Environmental Impact Assessment of Offshore Renewable Energy Development on Surfing Resources and Recreation

Data Information and Sources

3.8 The following key sources of data have been used to inform the baseline assessment:

- Marine Scotland (2011) Economic Assessment of Short Term Options for Offshore Wind Energy in Scottish Territorial Waters: Costs and Benefits to Other Marine Users and Interests
- Office of National Statistics (2003-2009) Mid Year Population Estimates
- Office of National Statistics (2009) Annual Population Survey
- Office of National Statistics (2009) Claimant Count
- Office of National Statistics (2009) Annual Business Inquiry / Business Register and Employment Survey
- Visit Scotland (2009) Visit Scotland Tourism Statistics
- Scottish Government (2010) Scottish Sea Fisheries Statistics 2009

3.9 A full list of documents referenced in this Baseline Assessment is provided in Section 8 below.

4.0 Policy Context

4.1 The Scottish Government (2009a: 5) is committed to achieving a headline target of 20% of total Scottish energy use from renewable sources by 2020. The European Directive on Renewable Energy (2009) and the Climate Change Act (Scotland) 2009 look to reduce carbon emissions and increase the proportion of energy produced from renewable sources.

4.2 In 2009, the Scottish Government published a Renewables Action Plan, which identifies the collective actions of government and its agencies to meet the renewable energy target. The Renewables Action Plan states that offshore wind development will be the key policy focus in the short to medium term, not only for its generation potential, but also in terms of economic opportunities related to manufacturing and infrastructure.

4.3 The Scottish Government states that Scotland can lead the world in the development of renewable energy technologies. The potential for offshore development in Scotland is large, with an estimated 206 GW of offshore wind, wave and tidal resources in Scottish waters - 39% of the UK total (Offshore Valuation Group, 2010: 31).

4.4 According to Scotland's Offshore Wind Route Map (OWIG, 2010: 5), Scotland has a quarter of Europe's offshore wind potential. Scotland's renewable energy capacity stands at 206 GW, however, Scotland's domestic energy requirement stands at 10.5 GW, therefore there is potential for the country to become a significant net exporter of sustainable energy to the rest of the UK and Europe (Scottish Development International, 2011: 5).

4.5 Scotland is currently a stakeholder in the offshore wind market. It is home to the Beatrice wind demonstrator project in the Moray Firth, the world's first deep water offshore wind turbine deployment, and Robin Rigg, E.ON's fully commissioned 180 MW wind farm in the Solway Firth (OWIG, 2010: 5). In 2009 the Crown Estate issued exclusive rights to nine consortia to develop 6.3 GW of offshore wind power in Scottish Territorial Waters (STW) (or up to 1,300 turbines). With strong wind resources, and experience in offshore activities such as oil and gas, Scotland has a competitive advantage and is well positioned to take a global lead in the offshore wind industry.

4.6 The National Renewables Infrastructure Plan (Scottish Enterprise, 2010a: 3) states that total UK expenditure on offshore wind projects is estimated at £72 billion to £84 billion. In Scottish Territorial Waters alone, capital expenditure on offshore wind projects over the period 2010-2020 has been estimated at £15 - £18 billion.

4.7 In 2010, the Crown Estate announced licenses for nine new offshore wind development zones around the UK (under the 'Round 3' licensing process), which aim to deliver a quarter of the UK's electricity needs by 2020. Delivery of this capacity requires massive investment in onshore and offshore energy infrastructure and supply chains. The two Round 3 projects in Scotland are in the Moray Firth (1.3 GW) and the Firth of Forth (3.5 GW).

4.8 In March 2011 the Scottish Government published 'Blue Seas – Green Energy: A Sectoral Plan for Offshore Wind Energy in Scottish Territorial Waters' (Scottish Government, 2011) which sets out the Scottish Government's plan for offshore wind. Scottish Ministers have decided that six of the nine Scottish sites granted exclusive rights by the Crown Estate should be progressed within the plan. Three of the sites previously granted exclusivity licences by The Crown Estate were omitted from consideration in this document as all three are on the Western coast of Scotland. The plan identifies a further 25 sites that should be considered for development between 2020 and 2030.

4.9 As a result of Crown Estate Round 3, STW leasing rounds, and the UK and Scottish Government Climate Change targets, there is a strong expectation that offshore wind programmes will begin large scale installation by 2014/15.

4.10 According to OWIG (2010: 9), offshore renewables represent the biggest opportunity for sustainable economic growth in Scotland for a generation in terms of manufacturing, supply chain, job creation and training opportunities. If Scotland is successful in developing a strong supply chain in offshore renewables, many of the nation's ports and harbours could be involved in related economic activity

(Scottish Enterprise, 2010a: 3).

4.11 RenewableUK (2010: 7) suggests that skills present in the oil and gas sector in the UK (in particular Scotland) will be crucial for the offshore wind industry and will be highly sought after. The Inner Study Area has a sizeable oil and gas industry and the development of offshore wind will provide further employment opportunities for those within Aberdeen City and Aberdeenshire.

4.12 At a local level, Aberdeen City and Aberdeenshire recognise the importance of the energy sector to the local economy. The Energy Review Report (2009) of the local area estimated that almost 40,000 people are directly employed in Aberdeen City and Aberdeenshire's energy sector, with the majority being residents of the area. In order to further enhance the energy sector in the area, Aberdeen City and Aberdeenshire have developed the 'Energetica' project; this public/private partnership aims to create the world's greatest concentration of energy companies on a 30 mile coastal strip between Peterhead and Aberdeen.

4.13 The project has been successful in gaining EU funding of up to €40m from the European Economic Recovery Plan. This award is in recognition of the project's potential role in supporting development of the European offshore wind industry by proving technologies and techniques.

5.0 Baseline Description

Population

5.1 The population of the Inner Study Area (the two local authority areas of Aberdeen City and Aberdeenshire) stood at 457,300 in 2009. Aberdeenshire is the larger of the two local authorities, accounting for 243,500 persons, with the remaining 213,800 residing in Aberdeen City. The population of Aberdeenshire has grown by 6.5% since 2003 – a faster rate than the UK and Scotland averages or Aberdeen City. Population growth in Aberdeen City has been slower, yet still slightly above the Scottish average as illustrated in Table 4.1 below.

Table 4.1: Population Estimates

Region	2003 Population	2009 Population	Population Growth 2003-2009
Aberdeen City	207,500	213,800	3.0%
Aberdeenshire	228,800	243,500	6.5%
Inner Study Area	436,300	457,300	4.8%
Wider Study Area	5,057,400	5,194,000	2.7%
United Kingdom	59,552,200	61,792,000	3.8%

Source: Mid-Year Population Estimates, Office of National Statistics, Downloaded from www.nomisweb.co.uk on 22nd March 2011

5.2 Population projections (General Register Office for Scotland, 2011) state that the population growth rate in Aberdeenshire will continue to be well above the Scottish average; whilst the population of Aberdeen City will continue to grow but at a slower rate. The population of Aberdeenshire is forecast to be 289,900 by 2030; an increase of 19.0% between 2009 and 2030. The population of Aberdeen City is forecast to be 219,800 in 2030; an increase of 4.0% (below the Scottish average of 6.5% for the same period).

5.3 The higher population growth rate projected for Aberdeenshire is expected to be generated from continued outward migration from Aberdeen City, possibly reflecting quality of life factors and better transport links. A potential lack of housing within Aberdeen City (especially family housing) may be another driver in Aberdeenshire's higher projected population growth.

5.4 A relatively high proportion (69.3%) of Aberdeen City's population is of working age (16 to 64 years of age), higher than the corresponding figures of 64.8% for Aberdeenshire, 65.7% across Scotland, and 65.0% across the UK as a whole.

Employment and Economic Activity

5.5 The Inner Study Area has a higher resident employment rate amongst the resident working age population than the Scottish and UK average. Just under 80% of the working age population is in employment, well above the UK average which is closer to 71% as illustrated in Table 4.2 below.

Table 4.2: Resident Employment by Region 2009

Region	Resident Employment Rate	Working Age Population	Employment
Aberdeen City	78.5%	148,100	116,300
Aberdeenshire	80.3%	157,800	126,700
Inner Study Area	79.4%	305,900	242,900
Wider Study Area	71.9%	3,413,100	2,454,000
United Kingdom	70.6%	40,137,100	28,336,800

Source: Annual Population Survey, Office of National Statistics, Downloaded from www.nomisweb.co.uk on 22nd March 2011

5.6 Resident unemployment and claimant count rates (those claiming unemployment benefits) are lower within the Inner Study Area than national average. In 2009 the resident unemployment rate within the Inner Study Area stood at 2.8% of the working age population, much lower than the Scottish average (7.1%).

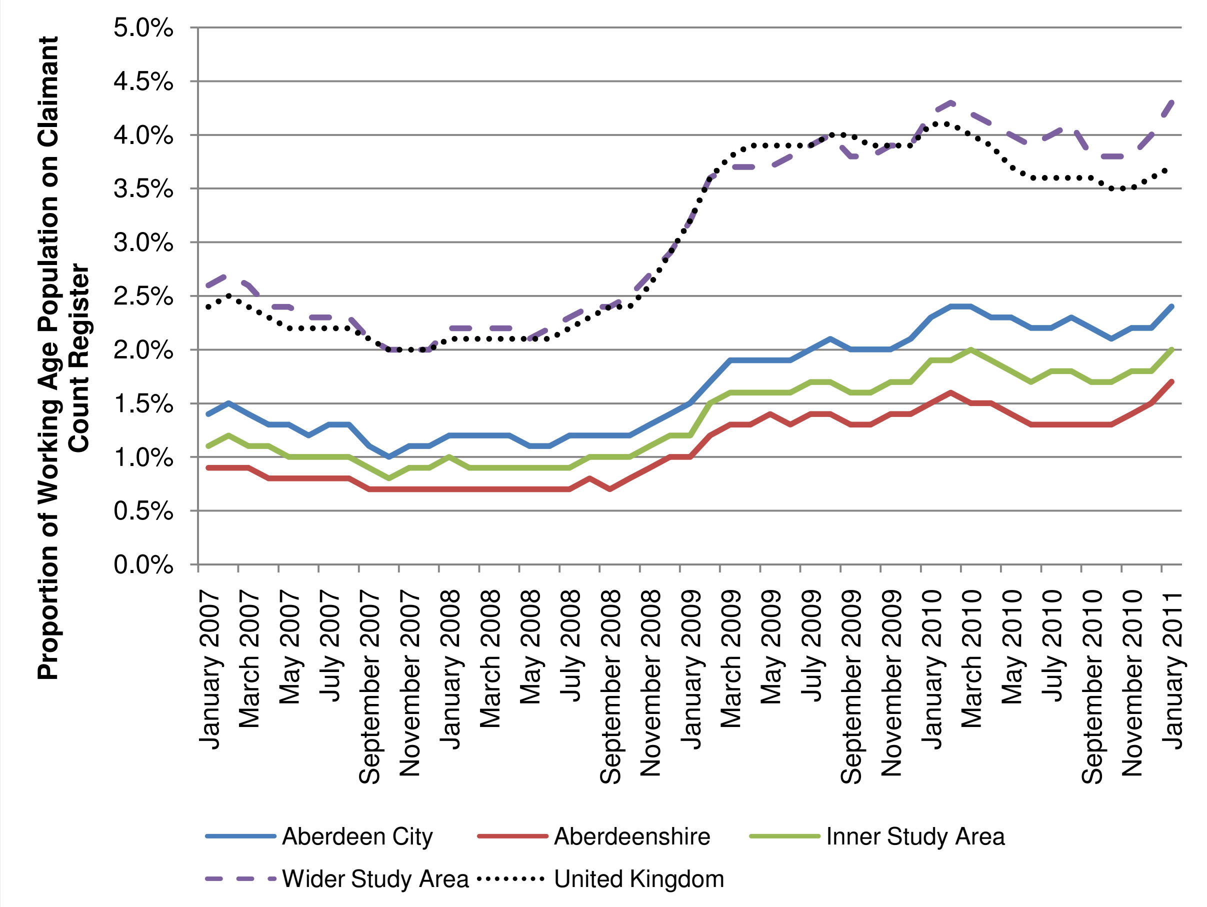
Table 4.3: Resident Unemployment by Region 2009

Region	Resident Unemployment Rate	Working Age Population	Unemployment
Aberdeen City	2.8%	148,100	4,100
Aberdeenshire	2.8%	157,800	4,400
Inner Study Area	2.8%	305,900	8,500
Wider Study Area	7.1%	3,413,100	242,300
United Kingdom	7.8%	40,137,100	3,130,700

Source: Annual Population Survey, Office of National Statistics, Downloaded from www.nomisweb.co.uk on 22nd March 2011

5.7 The claimant count provides much more up to date figures than the unemployment data presented above, and can therefore be used as a proxy for unemployment. As Figure 4.1 illustrates, the claimant count for the Inner Study Area has risen during the recession but remains significantly below the national average. The claimant count in Aberdeen City has been consistently above the Aberdeenshire rate.

Figure 4.1: Claimant Count by Region 2007 to 2011



Source: Jobseeker's Allowance Claimant Count, Office of National Statistics, Downloaded from www.nomisweb.co.uk on 22nd March 2011

5.8 Table 4.4 shows that the economic activity rate in the working age population is higher in the Inner Study Area (81.7%) than Scotland (77.4%) and the United Kingdom (76.5%). A slightly higher proportion of those who are currently economically inactive within the Inner Study Area want a job compared to the national benchmarks.

Table 4.4: Economic Activity by Region 2009

Economic Activity	Aberdeen City	Aberdeenshire	Inner Study Area	Wider Study Area	United Knigdom
Economic Activity	80.8%	82.6%	81.7%	77.4%	76.5%
Economic Inactivity	19.2%	17.4%	18.3%	22.6%	23.5%
Want a job	6.8%	5.5%	6.1%	5.8%	5.5%
Not looking for a job	12.4%	11.9%	12.1%	16.8%	18.0%

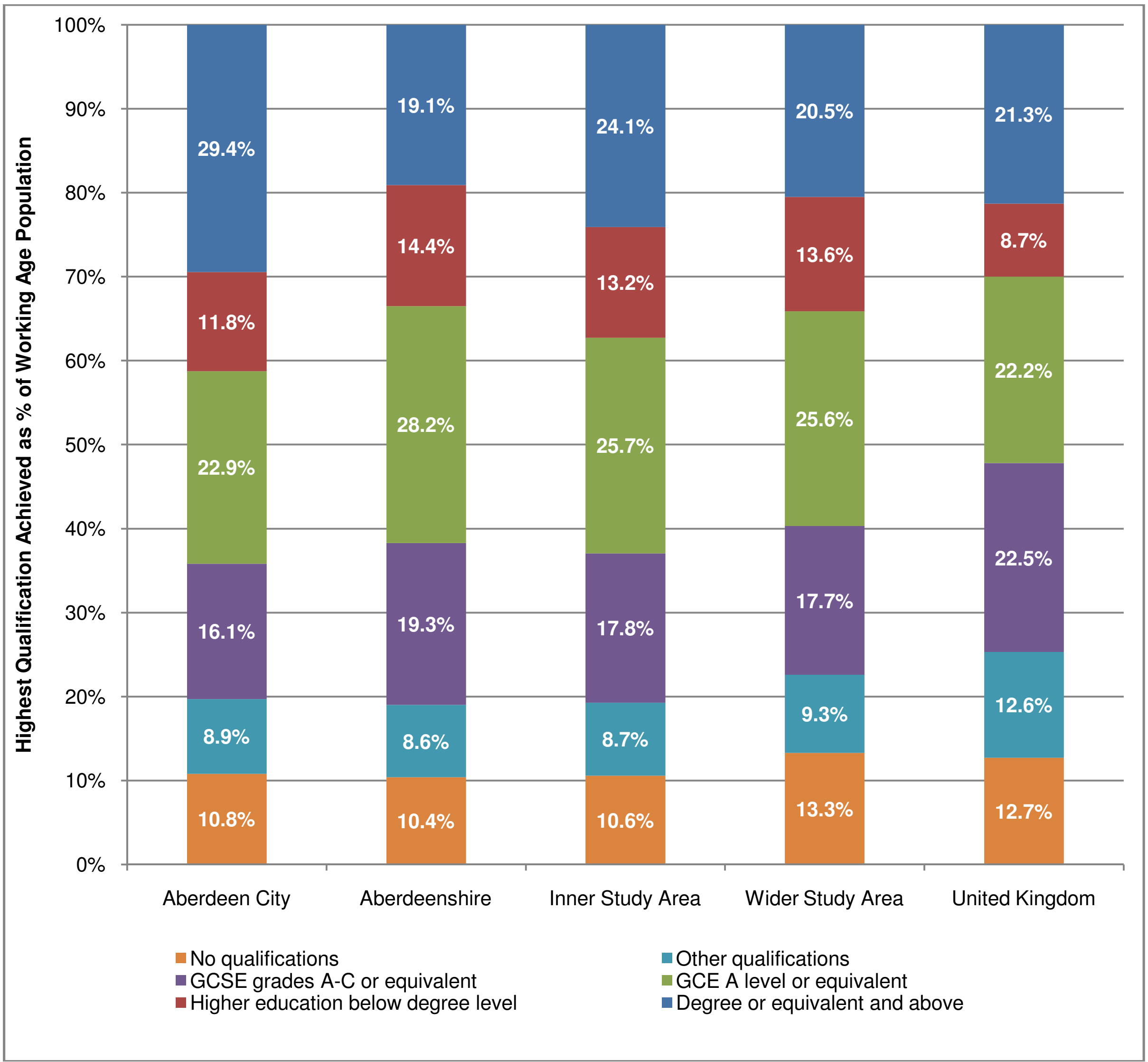
Source: Annual Population Survey, Office of National Statistics, Downloaded from www.nomisweb.co.uk on 22nd March 2011

5.9 Overall, these data show that the Inner Study Area has a relatively tight labour market, with high levels of economic activity and low levels of unemployment.

Qualifications

5.10 The Inner Study Area has a highly skilled working age population: 24.1% of the working age population are educated to degree level or higher, compared to 20.5% in Scotland as a whole. The levels of qualification are particularly high in Aberdeen City, where 29.4% are qualified to degree level, and only 10.8% of people have no qualifications. Aberdeenshire has a qualification profile more like the Scottish average with 19.1% educated to degree level and higher proportions of the working age population holding higher education (but not degree level) and A-Level qualifications than Aberdeen City.

Figure 4.2: Highest Qualification Achieved Profile by Region 2009



Source: Annual Population Survey, Office of National Statistics, Downloaded from www.nomisweb.co.uk on 22nd March 2011

Industrial Structure

5.11 Table 4.5a and Table 4.5b provide employment data from the Annual Business Inquiry/Business Register and Employment Survey, Office of National Statistics. Total employment may be higher than resident employment figures, as the region may support employment for those that live outside of the stated region.

5.12 The Inner Study Area has a higher number of jobs located within the region than the number of residents with jobs; suggesting that the region also provides employment to those commuting in from outside the area. In 2009, there were 263,000 jobs in the Inner Study Area, of which 175,960 were in

Aberdeen City, and 87,080 in Aberdeenshire. Aberdeen City appears to provide employment to many people in Aberdeenshire as well as some outside the region.

5.13 The employment profile of the Inner Study Area is somewhat different to national benchmarks as illustrated in Table 4.5a, as measured by Standard Industrial Classification (SIC). In particular the proportion of those working within Extractive Industries (which includes the oil and gas sector, at 9.8% of total employment, or 25,700 persons) is much higher than the Scottish and Great British average (Annual Business Inquiry/Business Register and Employment Survey does not report UK data, only up to Great Britain level). The vast majority of this employment is related to the extraction of crude petroleum and support activities to the industry. The Energy Review 2009 (ACSEF, 2009: 5) suggests a higher figure of almost 40,000 employees directly related to the energy sector.

5.14 The largest industry within Aberdeen City is human health and social work activities, representing 15.2% of employment in 2009 (26,680 persons), followed by mining and quarrying (21,890 persons; 12.4%, including oil and gas) and professional, scientific and technical activities (23,570 persons; 13.4%), in particular engineering activities and related technical consultancy (15,240 persons).

5.15 The Aberdeenshire employment profile is different to that of Aberdeen City. The oil and gas industry, although proportionally larger than the Scottish and GB average, is smaller than in Aberdeen City. The largest industrial sector within Aberdeenshire is wholesale and retail trade employing 14,420 persons (16.6% of total employment), followed by Manufacturing (10,930 persons; 12.6%) and human health and social work activities (9,860 persons; 11.3%). According to Annual Business Inquiry/Business Register and Employment Survey data at the four digit SIC code level, the largest manufacturing industry in Aberdeenshire is fish processing, employing 1,860 persons.

5.16 Neither Aberdeen City nor Aberdeenshire are overly dependent on the public sector. Although public sector employment (sum of public administration and defence, education and human health and social work activities from Table 4.5a) represents in the region of 25% of employment within the region, this is proportionally lower than the Scottish (31%) and Great British (GB) (28%) averages.

Table 4.5a: Employment Profile by Standard Industrial Classification Section 2009

SIC Sections	Aberdeen City	Aberdeenshire	Inner Study Area	Wider Study Area	Great Britain
Agriculture, forestry and fishing	0.0%	1.2%	0.4%	1.4%	0.8%
Mining and quarrying	12.4%	4.4%	9.8%	1.2%	0.2%
Manufacturing	6.8%	12.6%	8.7%	7.9%	9.0%
Electricity, gas, steam and air conditioning supply	0.1%	0.3%	0.2%	0.7%	0.4%
Water supply; sewerage, waste management	0.2%	0.4%	0.2%	0.7%	0.6%
Construction	3.8%	8.1%	5.2%	5.5%	4.8%
Wholesale and retail trade	11.5%	16.6%	13.2%	14.8%	16.2%
Transportation and storage	4.4%	4.5%	4.4%	4.3%	4.6%
Accommodation and food service activities	6.9%	6.7%	6.8%	7.3%	6.7%
Information and communication	2.0%	1.2%	1.8%	2.4%	3.7%
Financial and insurance activities	1.2%	1.0%	1.2%	3.9%	3.9%
Real estate activities	1.0%	0.7%	0.9%	1.1%	1.5%
Professional, scientific and technical activities	13.4%	9.1%	12.0%	6.3%	7.0%
Administrative and support service activities	7.5%	4.1%	6.4%	7.5%	7.7%
Public administration and defence	4.5%	4.8%	4.6%	6.4%	5.7%
Education	5.8%	8.6%	6.7%	8.2%	9.5%
Human health and social work activities	15.2%	11.3%	13.9%	16.1%	13.1%
Arts, entertainment and recreation	1.8%	2.1%	1.9%	2.6%	2.4%
Other service activities	1.4%	2.3%	1.7%	1.7%	2.1%
Total Employment	**175,960**	**87,080**	**263,000**	**2,382,500**	**26,206,120**

Source: Annual Business Inquiry/Business Register and Employment Survey, Office of National Statistics, Downloaded from www.nomisweb.co.uk on 22nd March 2011

Table 4.5b: Employment Profile by Standard Industrial Classification Section 2009

SIC Sections	Aberdeen City	Aberdeenshire	Inner Study Area	Wider Study Area	Great Britain
Agriculture, forestry and fishing	60	1,070	1,130	33,760	204,020
Mining and quarrying	21,890	3,810	25,700	29,190	55,280
Manufacturing	11,990	10,930	22,920	187,750	2,358,390
Electricity, gas, steam and air conditioning supply	210	290	500	16,470	115,540
Water supply; sewerage, waste management	280	340	610	16,000	150,640
Construction	6,710	7,060	13,770	132,230	1,261,390
Wholesale and retail trade	20,280	14,420	34,700	351,440	4,247,900
Transportation and storage	7,720	3,950	11,660	102,510	1,212,070
Accommodation and food service activities	12,190	5,820	18,010	173,380	1,763,770
Information and communication	3,560	1,050	4,610	57,040	972,510
Financial and insurance activities	2,190	850	3,040	93,540	1,034,570
Real estate activities	1,750	590	2,330	27,290	398,120
Professional, scientific and technical activities	23,570	7,930	31,500	149,010	1,824,610
Administrative and support service activities	13,150	3,580	16,740	177,760	2,021,020
Public administration and defence	7,930	4,170	12,100	153,000	1,484,610
Education	10,250	7,500	17,750	195,900	2,490,790
Human health and social work activities	26,680	9,860	36,530	383,380	3,425,320
Arts, entertainment and recreation	3,150	1,860	5,000	61,700	638,970
Other service activities	2,400	2,000	4,400	41,150	546,600
Total Employment	**175,960**	**87,080**	**263,000**	**2,382,500**	**26,206,120**

Source: Annual Business Inquiry/Business Register and Employment Survey, Office of National Statistics, Downloaded from www.nomisweb.co.uk on 22nd March 2011

5.17 Tables 4.6 and 4.7 identify the location quotient of employment in a number of industrial sectors. Location quotients measure whether a region has a particular specialism in an industry or trade, and are calculated by dividing the proportion of employees in a certain industry in the Inner Study Area by the corresponding proportion of employees in the sector in a benchmark area (e.g. Scotland). A location quotient greater than one, indicates that the Inner Study Area has a specialism within that industry, relative to the benchmark area.

5.18 Oil and Gas support services is a significant specialism within the economy of the Inner Study Area relative to the Scottish and GB benchmarks.

5.19 Annual Business Inquiry/Business Register and Employment Survey data states that employment within the 'Extraction of crude petroleum and natural gas' sector in the Inner Study Area represents 98% of total employment within the industry in Scotland, and 62% of the industry in GB. Similarly, 99% of Scottish and 89% of GB employment in Extractive Industry supporting services is found within the Inner Study Area. Other strong specialisms in the Inner Study Area include: architectural and engineering activities, repair and installation of machinery and equipment, and fishing and aquaculture.

Table 4.6: Location Quotient (LQ), Inner Study Area against Scotland Benchmark 2009

Two-Digit SIC Code	2009 Employment	LQ (Scotland Benchmark)
06 : Extraction of crude petroleum and natural gas	7,020	8.97
09 : Extractive Industry service activities	15,580	8.96
19 : Manufacture of coke and refined petroleum products	N/A	4.69
71 : Architectural and engineering activities	23,320	4.08
33 : Repair and installation of machinery and equipment	2,610	2.45

Source: Annual Business Inquiry/Business Register and Employment Survey, Office of National Statistics, Downloaded from www.nomisweb.co.uk on 22nd March 2011

Table 4.7: Location Quotient, Inner Study Area against Great Britain Benchmark 2009

Two-Digit SIC Code	2009 Employment	LQ (GB Benchmark)
09 : Extractive Industry service activities	15,580	88.4
06 : Extraction of crude petroleum and natural gas	7,020	55.1
03 : Fishing and aquaculture	1,170	17.9
71 : Architectural and engineering activities	23,320	5.6
02 : Forestry and logging	260	2.8

Source: Annual Business Inquiry/Business Register and Employment Survey, Office of National Statistics, Downloaded from www.nomisweb.co.uk on 22nd March 2011

5.20 In 2009, according to Annual Business Inquiry/Business Register and Employment Survey data 1,170 persons were employed within the two digit SIC code '03 : Fishing and aquaculture', representing 27.9% and 18.0% of the Scottish and Great British fishing industry respectively.

5.21 There are three principal ports within the Inner Study Area (Aberdeen, Peterhead, and Fraserburgh), plus a number of smaller ports and harbours used for commercial and fishing activities such as Banff, Buckie, Gourdon, Johnshaven, Macduff, Portsoy, and Stonehaven. Aberdeen is the major supply base for the North Sea oil industry and employs around 11,000 people, a large number of which are oil related (Marine Scotland, 2011: 27). Peterhead is the UK's largest fishing port and is also a major oil industry support base. 140,000 passengers a year travel on Northlink ferries from Aberdeen and Lerwick and Kirkwall, which gives considerable economic and social benefits to both port and harbour operators as well as the surrounding areas (Marine Scotland, 2011: 27).

5.22 Marine Scotland (2011: 10) states that: "Scotland is one of the largest fishing nations in Europe and the Scottish fleet is responsible for landing 66% of the total UK volume of fish. The fishing sector contributed around £144 million gross value added (GVA) to the Scottish economy in 2009, and total of £443 million of fish was landed in Scotland".

5.23 The Inner Study Area is home to the most valuable district in terms of the value of fish landed in Scotland: Peterhead landed 149,200 tonnes of fish in 2009 valued at £118 million (27% of the total Scottish market). Other important ports in the study area for landing fish are Fraserburgh (37,500 tonnes), Aberdeen (3,500 tonnes) and Buckie (1,900 tonnes) (Marine Scotland, 2011: 12-13).

Renewable Energy Sector

5.24 Innovas (2010: 43) valued the UK renewable energy sector at £31.3 billion in 2007/08, of which Scotland accounted for £2.6 billion (8.3%). Scotland's renewable energy sector was the fifth largest in the UK, behind English regions such as London, South East, North West and the West Midlands. UK employment within the sector stood at 265,700 in 2007/08, of which Scottish employment stood at 22,200 (8.4%).

5.25 As of February 2011, Scottish Renewables stated that renewable energy generation capacity in Scotland stood at 4,405 MW, of which wind was the largest contributor with 2,562 MW, followed by hydro (1,395 MW) and biomass heat (225 MW). Offshore wind is relatively new to Scotland as the majority of offshore wind development has so far taken place off English and Welsh coasts. Scotland currently has two operational offshore wind sites, the Beatrice wind demonstrator project with two 5 MW turbines and Robin Rigg with a total capacity of 180 MW. However, Scottish Renewables (2011: 1) estimate that the proposed offshore wind developments in Scotland may create around 28,000 direct jobs by 2020.

5.26 Aberdeen Renewable Energy Group (AREG) was set up by Aberdeen City Council to help develop the region as a centre of excellence in renewable technologies. AREG are developing the Energy Futures Centre in Aberdeen, which aims to lead the way nationally and globally in R&D of renewable technology, bringing together the key players from across the energy sector. Other projects include a new Renewables Research Centre in partnership with the two universities based in the city (University of Aberdeen and Robert Gordon University).

5.27 A number of onshore wind farms are located within the Inner Study Area including Glens of Foundland Wind Farm (26 MW), Dummuies Wind Farm (10MW) and Boyndie Wind Farm Cooperative (14 MW). There are also a number of smaller developments within the Inner Study Area such as three turbines generating 2.5MW of electricity at Mackie's ice cream factory near Inverurie and in 2007 Cults Primary School became the first school in Scotland to use wind generated power (ACSEF, 2009: 20-21). The Inner Study Area is also home to a number of biomass projects including Aboyne Academy, one of the first schools in Scotland to have installed a biomass heating system.

Business Base

5.28 Table 4.8 provides an overview of the size of businesses by employment number bands. Nearly 83% of businesses in the Inner Study Area employ 10 or fewer people. Aberdeenshire has a larger proportion of small businesses, those employing ten or less employees, than Aberdeen City. Aberdeen City has a higher number of larger employers, perhaps reflecting the industrial structure of employment, and the Oil and Gas sector.

Table 4.8: Business by Employment Band 2009

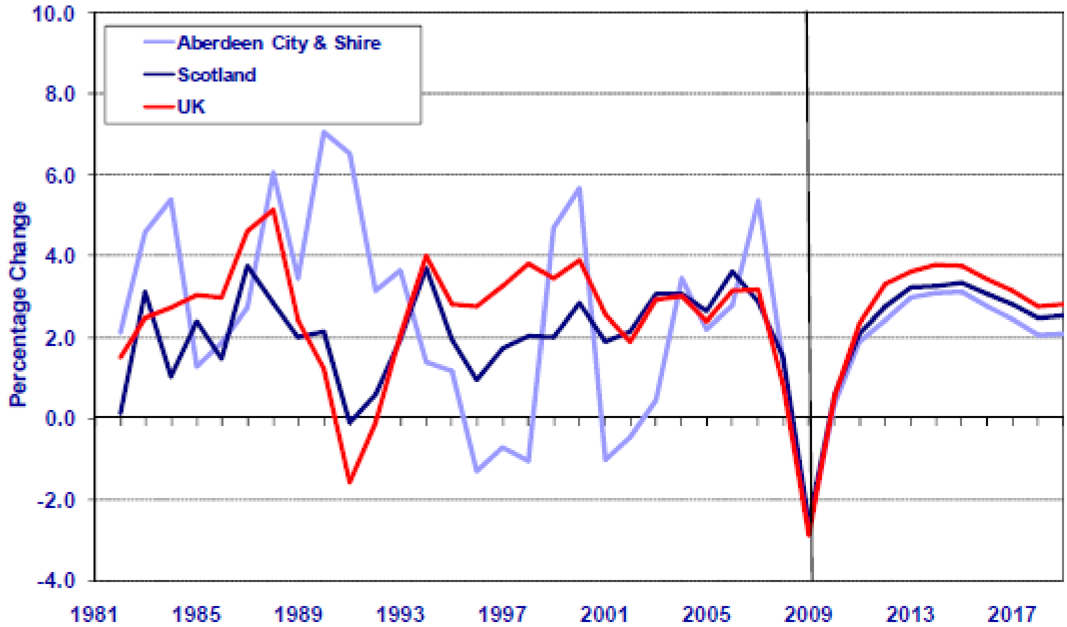
Region	Businesses	1 to 10	11 to 49	50 to 199	200 Plus
Aberdeen City	9,680	77.8%	16.1%	5.0%	1.2%
Aberdeenshire	11,280	87.4%	10.3%	2.0%	0.4%
Inner Study Area	20,960	82.9%	12.9%	3.4%	0.7%
Scotland	181,470	81.4%	14.4%	3.4%	0.8%
Great Britain	2,446,020	85.0%	11.5%	2.8%	0.7%

Source: Annual Business Inquiry/Business Register and Employment Survey, Workplace Analysis, Office of National Statistics, Downloaded from www.nomisweb.co.uk on 22nd March 2011

Future Performance

5.29 Scottish Enterprise (2009) provides an overview of the structure of the region's economy and forecasts for the future direction of the economy. The review suggests that the recovery from the current downturn is likely to be largely service sector led. The Inner Study Area will experience a weaker upturn than most other regions in Scotland and the UK. Average annual gross value added (GVA) growth between 2011 and 2015 is expected to be 2.7% in the Inner Study Area, compared with 2.9% in Scotland and 3.4% in the UK (Scottish Enterprise, 2009: 73).

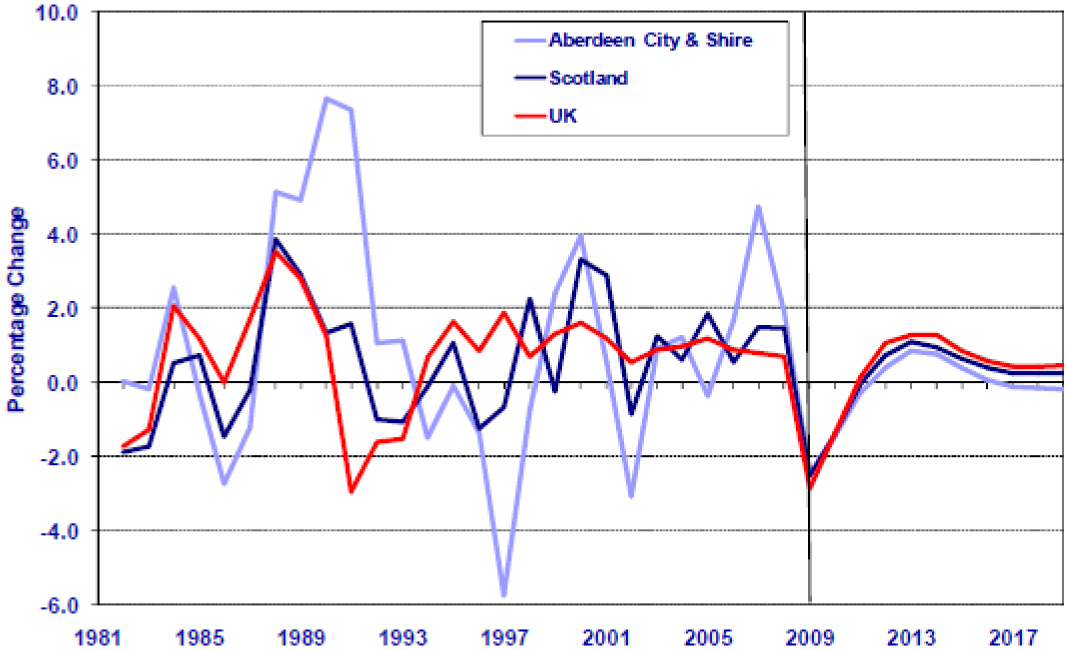
Figure 4.3: GVA Growth 1981 to 2019



Source: Scottish Enterprise Aberdeen City & Shire Economic Review 2009, Oxford Economics

5.30 Scottish Enterprise (2009) suggests that overall employment in the Inner Study Area will contract over the period 2008 to 2018, with a loss of around 6,000 jobs (Scottish Enterprise, 2009: 73). An estimated 12,100 jobs will be lost between 2008 and 2011, with a recovery between 2012 and 2018 creating 6,000 jobs (Scottish Enterprise, 2009:73). It is estimated that 2008 employment levels will not be regained until beyond 2018 as highlighted in Figure 4.4.

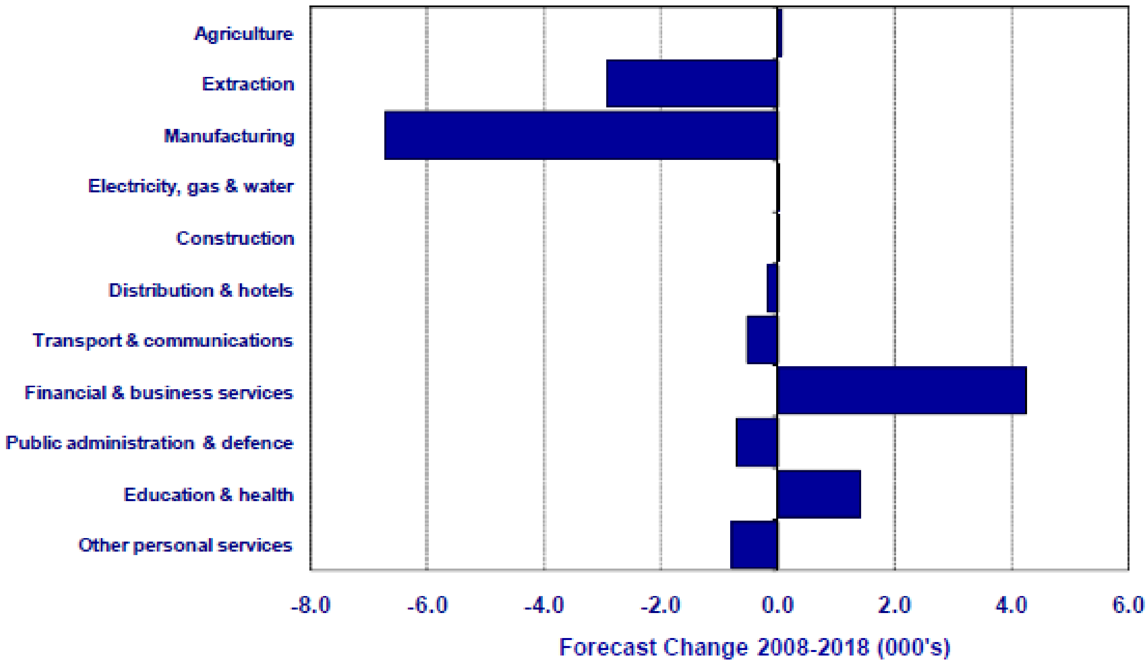
Figure 4.4: Employment Growth Forecast



Source: Scottish Enterprise Aberdeen City & Shire Economic Review 2009, Oxford Economics

5.31 The worst affected sectors will be Manufacturing and Extractive Industries (such as Oil and Gas), with estimated losses of 6,700 and 2,900 jobs by 2018 respectively. The only sectors that are expected to grow between 2008 and 2018 are Education and Health, and Financial Services, as illustrated in Figure 4.5.

Figure 4.5: Employment Change by Sector, 2008 to 2018



Source: Scottish Enterprise Aberdeen City & Shire Economic Review 2009, Oxford Economics

Tourism

5.32 In 2009, around 15 million overnight tourism trips were taken in Scotland, for which expenditure totalled over £4 billion (Visit Scotland, 2010a: 3).

5.33 It is estimated that in 2009, tourists made around 1.5 million trips to Aberdeen & Grampian, staying for 6.1 million nights and spending a total of £344 million as illustrated in Table 4.9 (Visit Scotland, 2010b: 3). On the basis of tourist numbers, therefore, the Aberdeen and Grampian area accounts for around 10% of the total tourism sector in Scotland. Aberdeenshire's tourist industry is growing in importance, with its major natural assets the Cairngorms and coast, supplemented by visitor attractions based on Aberdeenshire's heritage.

Table 4.9: Visit Scotland Tourism Statistics 2009

Tourist Metric	Aberdeen & Grampian		Scotland	
	UK visitors	Overseas Visitors	UK visitors	Overseas Visitors
Trips[a]	1.25 million	0.24 million	12.5 million	2.6 million
Nights[b]	4.38 million	1.67 million	46.1 million	21.9 million
Spend[c]	£246 million	£98 million	£1,249 million	£1,259 million

Source: Visit Scotland, Scotland – The Key Facts on Tourism in 2009; Visit Scotland, Tourism in Northern Scotland 2009

a: Stay of one or more nights away from home for holidays, visits to friends, business and conference or any other purpose other than boarding education of semi-permanent employment.
b: Nights spent away from home using any type of accommodation or in transit on a tourist trip.
c: Spending incurred while away from home on a tourist trip and advance payments for such items as fares and accommodation. For overseas visitor statistics, the cost of travel to the destination is excluded.

5.34 Of the 1.5 million trips made by tourists to Aberdeen and Grampian, 50% were made by Scottish visitors - much higher than the Scottish average of 39%. Overseas visitors represented 240,000 trips to the region in 2009, staying for 1.67 million nights and spending around £98 million. Germany and the USA were the largest markets for the region, making up a quarter of all international visits and spend between them (Visit Scotland, 2010b: 3).

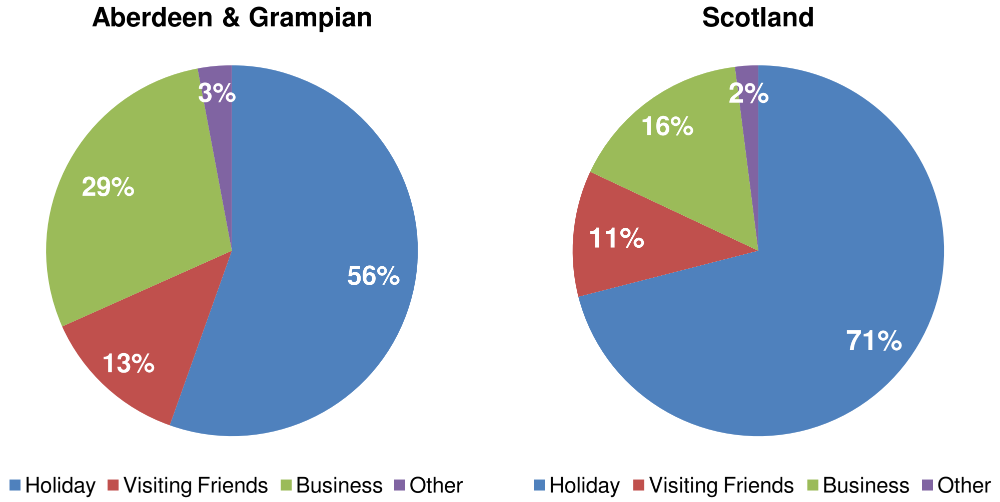
Table 4.10: Tourist Numbers by Country of Residence 2009

Toursit Residence	Aberdeen & Grampian		Scotland	
England	450,000	30.2%	5,980,800	39.9%
Scotland	750,000	50.3%	5,856,200	39.0%
Northern Ireland	25,000	1.7%	373,800	2.5%
Wales	25,000	1.7%	249,200	1.7%
Outside UK	240,000	16.1%	2,540,000	16.9%

Source: Visit Scotland, Scotland – The Key Facts on Tourism in 2009; Visit Scotland, Tourism in Northern Scotland 2009

5.35 Figure 4.3 provides an overview of UK visitor type to both the Aberdeen & Grampian region and Scotland. The Inner Study Area is more reliant upon business tourism than the Scottish average (29% of tourist trips versus the Scottish average of 16%), whilst tourist trips are of relative less importance in Aberdeen and Grampian (56%) than Scotland as a whole (70%). The proportion of business tourism in Aberdeen is close to that of Glasgow (27%) (Visit Scotland, 2010c: 1), but above that of Edinburgh (22%) (Visit Scotland, 2010d: 1).

Figure 4.3: Tourist Trip by UK Visitor Type 2009



Source: Visit Scotland, Scotland – The Key Facts on Tourism in 2009; Visit Scotland, Tourism in Northern Scotland 2009

5.36 Aberdeen City and Shire is recognised as an area of outstanding natural beauty and unique attractiveness. Scottish Enterprise (2010b: 4) states that the region is an attractive region for hotel operators and developers. The report identifies two concerns, especially for those targeting the business tourism market which is important to the Inner Study Area: current demand from the business market is not always met by the current stock especially if there is need for larger capacity bookings; the leisure tourist offering requires to be developed further in order to more strongly position the Inner Study Area as a competent visitor destination (Scottish Enterprise, 2010b: 6).

5.37 Scottish Enterprise (2010b: 12) estimate that business tourism accounts for a higher proportion of visitor trips and spend than the Visit Scotland figures (Visit Scotland, 2010b: 3). Scottish Enterprise estimates that over half of visitors to Aberdeenshire, and almost three quarters of visitors to Aberdeen City were business related. Business tourism is estimated to be worth £137 million per year to the local economy (Scottish Enterprise, 2010b: 12).

5.38 Scottish Enterprise (2010b) identified a number of key tourism developments within the Inner Study Area which are described in Table 4.11. In addition, the Menie Estate development by the Trump organisation is the most significant tourism investment ever to take place in Aberdeenshire and will see several hundred million pounds of investment into the local economy.

Table 4.11: Key Developments in Tourism and Infrastructure- Aberdeen City & Shire

Attraction	Development
Royal Deeside & Cairngorms	SE's Destination Plan estimated to increase tourism income by £30 million. Identifying sites for resort and accommodation development.
Banffshire Coast	A number of initiatives underway to boost tourist income by £5 million a year, mainly through art and boat festivals.
Golf Tourism	The Inner Study Area is one of the main beneficiaries from £177 million Scottish golf market. A number of championship links golf courses are in the pipeline which will significantly impact the local economy.
Food Tourism	Current key attraction such as Deans of Huntly Visitor Centre and distillery projects will continue to grow. A number of events showcasing local produce will also attract tourists in the future.
Business Tourism	Despite the economic downturn, business tourism will continue to be of importance to the region. Major industry conferences such as Society of Petroleum Engineers (SPE) Offshore Europe Oil & Gas Conference & Exhibition are significant to the local economy.
City Centre Retail	The £275 million Union Square retail and leisure development opened in October 2009. The 700,000 sq ft centre includes a cinema, shops and restaurants and is integrated with the city's bus and rail stations.

Source: Scottish Enterprise, Aberdeen City & Shire Hotel Accommodation Report Feb 2010

5.39 Table 4.12 lists the top five visitor attractions in Aberdeen & Grampian. None of the Aberdeen-based visitor attractions feature in the Scottish top ten list, with David Welch Winter Gardens (313,217 visitors) below the tenth placed Scottish visitor attraction: National War Museum, Edinburgh (494,213). The top ten list is dominated by attractions in Glasgow and Edinburgh.

Table 4.12: Top Visitor Attractions, 2009

Aberdeen & Grampian			Scotland		
Rank	Visitor Attraction	Visitor Numbers	Rank	Visitor Attraction	Visitor Numbers
1	David Welch Winter Gardens (Aberdeen)	313,217	1	Kelvingrove Art Gallery & Museum, Glasgow	1,368,096
2	Johnston's Cashmere Visitor Centre (Elgin)	202,200	2	Edinburgh Castle	1,196,481
3	Aberdeen Art Gallery	178,344	3	The National Gallery Complex, Edinburgh	890,361
4	Aberdeen Maritime Museum	76,558	4	World Famous Old Blacksmiths Shop, Gretna Green	706,663
5	Provost Skene's House (Aberdeen)	61,071	5	St Giles Cathedral, Edinburgh	653,864
			6	Edinburgh Zoo	636,867
			7	National Museum of Scotland, Edinburgh	589,621
			8	Gallery of Modern Art, Glasgow	536,916
			9	Edinburgh Bus Tours	531,352
			10	National War Museum, Edinburgh	494,213

Source: Visit Scotland, Scotland – The Key Facts on Tourism in 2009; Visit Scotland, Tourism in Northern Scotland 2009

Recreation

5.40 The Scottish coast, in particular the West coast, is identified as one of the World's best destinations for sailing. According to the Royal Yachting Association (RYA), recreational boating and sailing tourism contributes about £300 million to the Scottish economy (Marine Scotland, 2011: 38). Sailing off the east coast of Scotland is concentrated in the Firth of Tay and Firth of Forth and further south. Recreational use is moderate along the coastline of the Inner Study Area. The inner Moray Firth is an important area for recreational sailing. The value of sailing area from Helmsdale to Peterhead stood at £10.1 million in 2010, and the corresponding figure for the coastline of Peterhead to Berwick is £7.9 million (Marine Scotland, 2011: 40).

5.41 Sea angling takes place along most of the Scottish Coast. The Scottish Government estimates that 125,200 adults and 23,450 children went sea angling in Scotland in 2008, with a total expenditure of £141 million (Marine Scotland, 2011: 42). Sea angling supported 3,148 FTE Scottish jobs in 2008 (Scottish Government, 2009b: 8).

5.42 There are a number of other widespread water-borne recreational activities of importance. British Marine Federation (BMF, 2009: 31) estimates that across Scotland, 52,869 adults participate in surfing, 23,952 in windsurfing and 37,416 in canoeing. Fraserburgh, located within the Inner Study Area, is a particularly popular surfing location and regularly holds surf competitions and events such as the UK Surf Tour and Fraserburgh Surf Festival. There are a number of popular surfing and windsurfing sites along the coast of the Inner Study Area including: Lossiemouth, Spey Bay, Sandend Bay, Cullen, Banff, Pennan, Aberdeen Beach, Aberdeen Harbour, Stonehaven and St Combs.

6.0 Summary

6.1 AOWFL is proposing to develop an offshore wind farm and deployment centre off the coast of Aberdeen, known as the European Offshore Wind Deployment Centre (EOWDC). DTZ has been commissioned by AOWFL to undertake a socioeconomic, recreation and tourism impact assessment of the proposed EOWDC.

6.2 There is a significant renewable energy resource in Scotland, coupled with a high level of government commitment to renewable energy generation. The Scottish Government is committed to achieving a headline target of 20% of total Scottish energy use from renewable sources by 2020. Scotland has a quarter of Europe's offshore wind potential. The Crown Estate has granted exclusive development rights for 11 offshore wind zones in Scotland.

6.3 At a local level, Aberdeen City and Aberdeenshire recognise the importance of the energy sector to the local economy. The 'Energetica' project has been developed which sets out a vision as to how the Inner Study Area can see energy, tourism, other industries and quality of life factors combine to raise the profile and economic performance of the region.

6.4 The Inner Study Area can be characterised as follows:

- A population of 457,300 people in 2009, which has grown by 4.8% since 2003 (a faster rate than the UK or Scotland)
- High levels of employment in the working age population (79.4% of the working age population are employed, compared to 71.9% in Scotland)
- Low level of unemployment (2.8% in the Inner Study Area compared to 7.1% in Scotland)
- A highly qualified workforce (24% of the workforce is degree qualified, compared to 20.5% in Scotland)
- The Inner Study Area is less dependent on public sector employment than other parts of Scotland. The Inner Study Area has a significant Oil and Gas sector – comprising 25,700 workers, and accounting for over 60% of UK employment in the oil and gas industry. This

provides a firm foundation for development of new energy sources such as offshore wind, given the complementarity of skills required.

- The three principle ports within the Inner Study Area are Aberdeen, Peterhead, and Fraserburgh. Aberdeen Port is the major supply base for the North Sea oil industry and employs around 11,000 people; whilst Peterhead landed 149,200 tonnes of fish in 2009 valued at £118 million (27% of the total Scottish market).
- 1.5 million tourist trips were made to Aberdeen and Grampian in 2009, contributing £344 million of expenditure to the local economy. The region attracts a high number of Scottish and UK tourists. A relatively high proportion of tourist trips into the region relate to business tourism – almost three quarters of visitors to Aberdeen City are business-related. The most significant tourism investment in the inner study area is the Trump Corporation's investment at Menie Estate which will increase tourist income in coming years.
- The coastline of the Inner Study Area is used for a variety of recreational activities including sailing (although only to a moderate extent relative to other parts of Scotland), sea angling, surfing, canoeing, kayaking, windsurfing and kitesurfing. Fraserburgh is a particularly popular surfing location and regularly holds surf competitions and events such as the UK Surf Tour and Fraserburgh Surf Festival.

6.5 Looking forward, the Inner Study Area is expected to experience a weak recovery from the recession. Forecasts show that the economy is expected to grow by an average of 2.7% per annum in the period 2011-2015 in the Inner Study Area, compared to 2.9% in Scotland, and 3.4% in the UK. Employment in the Inner Study Area is expected to decline by 12,100 jobs from 2008 to 2011; after which it is expected that there will be a gradual recovery, with job numbers increasing by 6,000 in the period 2011 to 2018. Over the period 2008-2018 as a whole, the worst affected industries in terms of job losses are expected to be Manufacturing and Oil and Gas industries.

7.0 References

- Aberdeen City and Shire Economic Future (ACSEF) (2009) Energy Review 2009
- BERR / Innovas (2010) Low Carbon and Environmental Goods and Services: An Industry Analysis
- BIS (2009) Guidance for Using Additionality Benchmarks in Appraisal
- BIS (2010) Impact Assessment Guidance
- British Marine Federation (2010) Leisure, Superyacht and small commercial marine industry: Key Performance Indicators 2009/10
- British Marine Federation (2009) Watersports and Leisure Participation Survey 2009
- BWEA (2010) Building an Industry
- English Partnerships (2008) Additionality Guide: Third Edition
- General Register Office for Scotland (2011) 2008-based Population Projections for Scottish Areas, Table 1 Projected Population by Council and NHS Board Area (2008 – 2033)
- Global Renewable Energy Partners (2002) Kentish Flats Offshore Windfarm: Non-technical Summary
- Gwynt Y Mor Offshore Wind Farm Limited (2005) Environmental Statement − Non Technical Summary

- HM Treasury (2003) Green Book
- Marine Scotland (2011) Economic Assessment of Short Term Options for Offshore Wind Energy in Scottish Territorial Waters: Costs and Benefits to Other Marine Users and Interests
- NWP Offshore Ltd (2002) North Hoyle Offshore Wind Farm Environmental Statement
- Office of National Statistics (2003-2009) Mid Year Population Estimates
- Office of National Statistics (2009) Annual Population Survey
- Office of National Statistics (2009) Claimant Count
- Office of National Statistics (2009) Annual Business Inquiry / Business Register and Employment Survey
- Offshore Valuation Group (2010)The offshore valuation: a valuation of the UK's offshore renewable energy resource
- Offshore Wind Industry Group (2010) Offshore Wind Route Map
- RenewableUK (2010) UK Offshore Wind: Building an Industry
- Scottish Development International (2011) Marine Energy in Scotland
- Scottish Enterprise / Oxford Economics (2009) Aberdeen City & Shire Economic Review 2009
- Scottish Government (2010) Scottish Sea Fisheries Statistics 2009
- Scottish Enterprise (2010a) National Renewables Infrastructure Plan
- Scottish Enterprise (2010b) Aberdeen City & Shire Hotel Accommodation Report
- Scottish Government (2009a) Renewables Action Plan
- Scottish Government (2009b) Technical Report: Economic Impact of Recreational Sea Angling in Scotland
- Scottish Government (2011) Blue Seas – Green Energy: A Sectoral Plan for Offshore Wind Energy in Scottish Territorial Waters
- Scottish Renewables (2011) Driving the Low Carbon Economy Paper 7 Offshore Wind
- Snedden Economics Ltd (2005) Economic Impact of Proposed Talisman Offshore Wind Farm in the Beatrice Oilfield
- Surfers Against Sewage (2009) Guidance on environmental impact assessment of offshore renewable energy development on surfing resources and recreation
- Talisman Energy (2004) Beatrice Wind Farm Demonstrator Project: Environmental Statement
- Visit Scotland (2010a) Scotland – The Key Facts on Tourism in 2009
- Visit Scotland (2010b) Tourism in Northern Scotland 2009, Highlands & Islands, Aberdeen & Grampian, Orkney & Shetland Factsheet
- Visit Scotland (2010c) Tourism in Western Scotland 2009
- Visit Scotland (2010d) Tourism in Eastern Scotland 2009