

# INTRODUCTION

## Client

The Energetica development framework has been led by Scottish Enterprise (SE) on behalf of Aberdeen City and Shire Economic Future ACSEF. ACSEF is a dynamic partnership of the public and private sectors committed to delivering new economic opportunities for the benefit of Aberdeen City and Shire. SE is the main economic, enterprise, innovation and investment agency in Scotland. The role of SE is to promote and deliver sustainable developments to assist the growth of the Scottish economy. Ensuring sustainable economic development requires Scottish Enterprise to;

- Support, encourage and develop existing businesses
- Ensure world-class infrastructure
- Stimulate business growth in Scotland by supporting and developing the business environment
- Equip people and businesses with the necessary skills to compete in a global economy

The role of SE in Aberdeen City and Shire is to identify local priorities and accelerate the delivery of economic development, investment and growth in the North East of Scotland. SE is particularly concerned with the reliance on oil in the North East and recognises the need for diversification. In particular, SE supports the potentially lucrative transfer of skills from the Oil and Gas industry to the renewable energy industry. Furthermore, SE not only wants to create a renewable energy industry but to promote a lifestyle centred on the themes of sustainability and renewables. It is against this backdrop that "Energetica" was conceived.



North Sea oil industry



Fishing industry



Peterhead Power Station



PETERHEAD

CRUDEN  
BAY

ELLON

NEWBURGH

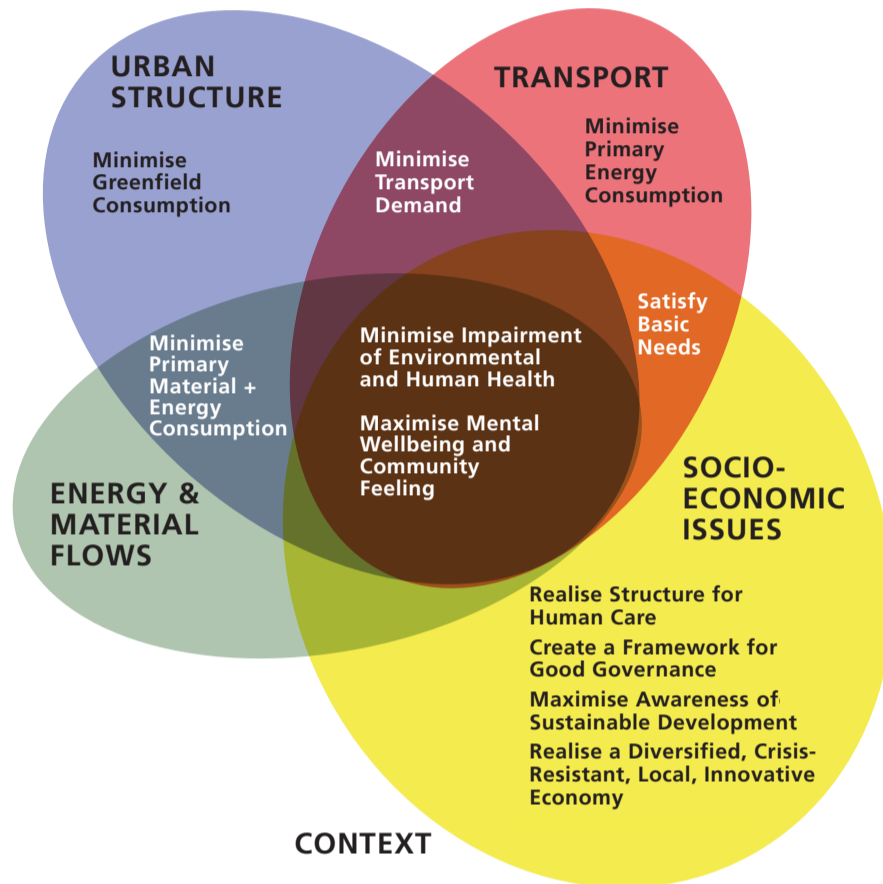
BRIDGE OF DON  
AND DYCE

ABERDEEN

1.5 miles

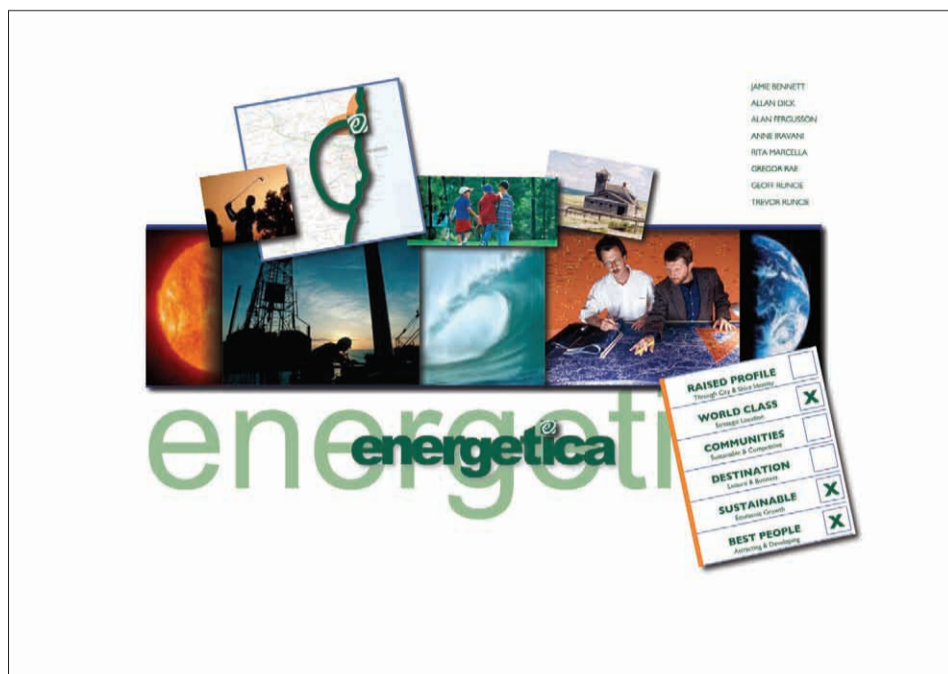
## Commission

In January 2008, Gillespies were commissioned by SE to prepare a masterplan for the Energetica Corridor. In addition to Gillespies, the design team included architect and urbanist firm JTP, transport specialist MRC McLean Hazel, eco-architects Joachim Eble Architektur, renewable energy experts Buro Happold and Professor Stuart Gulliver, an economist with significant experience in regeneration and city development.



The consultants' approach is based on the synergy between energy, transport, structure, economy and community - and how these synergies combine to create successful places.





## The Concept of Energetica

As it stands at present 'Energetica' is a relatively new concept. It is essentially the purpose of this current work therefore, to take the initial ideas and elaborate upon them and envision, in more detail, how the 'Energetica' concept might look on the ground – by identifying its geography and its possible scale, content and character.

From a number of published sources and interviews the 'Energetica' project is clearly seen as a **regional economy-enhancing development** which seeks to integrate two key components i.e. sustainable economic growth and quality of life.

The long term vision for 'Energetica' is to create a truly world class development opportunity for the North East of Scotland, linked to its world class performance in offshore energy, that can compete with 'offerings' in other oil and gas provinces.

The objectives which underpin this vision are;

- to **consolidate** Aberdeen's position as one of the world's major offshore energy centres and the energy capital of Europe
- to **attract** new high value investment to the region and
- to **support** the export drive of indigenous business

'Energetica' is to be developed in a 'Corridor' beginning at the Aberdeen Science and Energy Park, stretching northward along a 30 mile Corridor of the A90 to Peterhead.

- The 'Corridor' is perceived as a series of interconnected energy and non-energy related developments which will be strongly branded and marketed
- It will be a high quality development of 'international class'- reflecting a strong desire to create something of quality
- The thinking, will need to be big, creative and grab international attention
- The 'Energetica Corridor' is seen as a phased development over 20 years at least

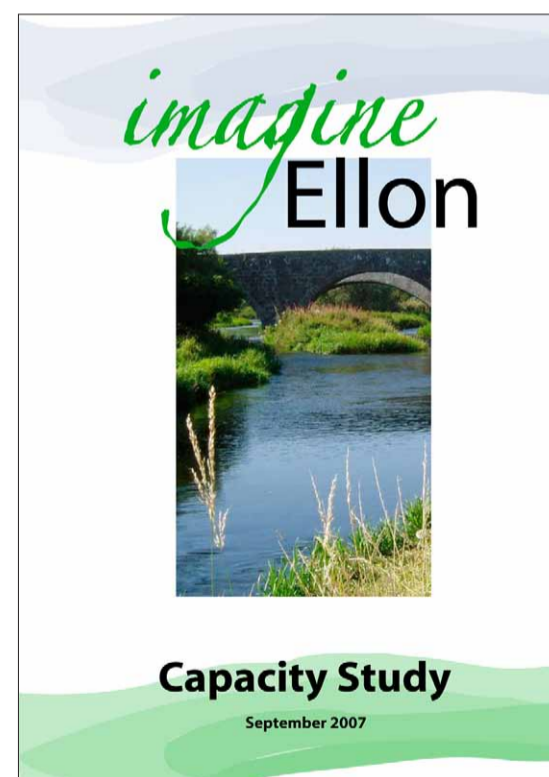
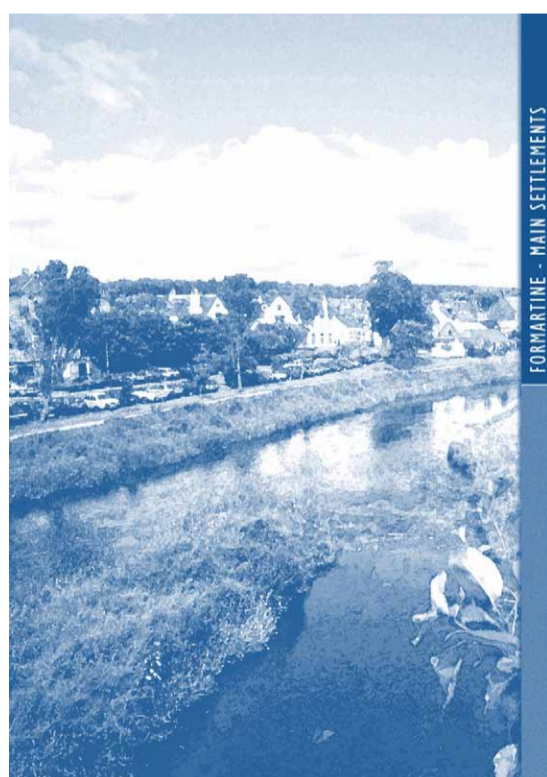
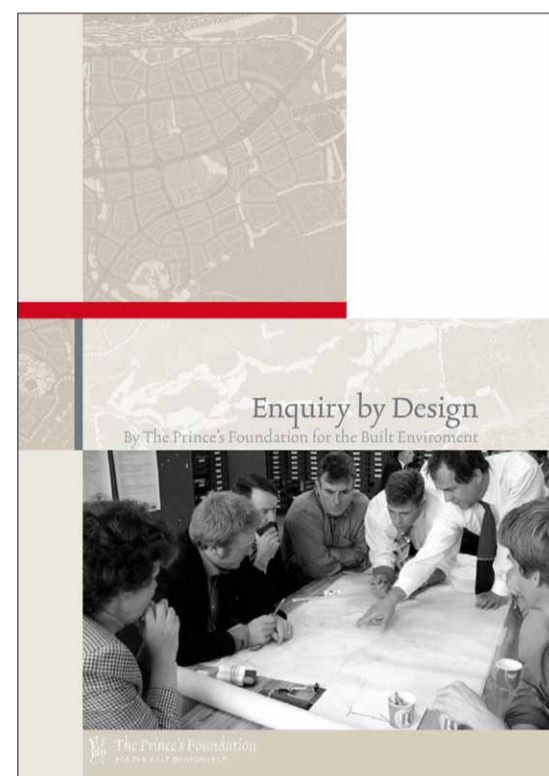
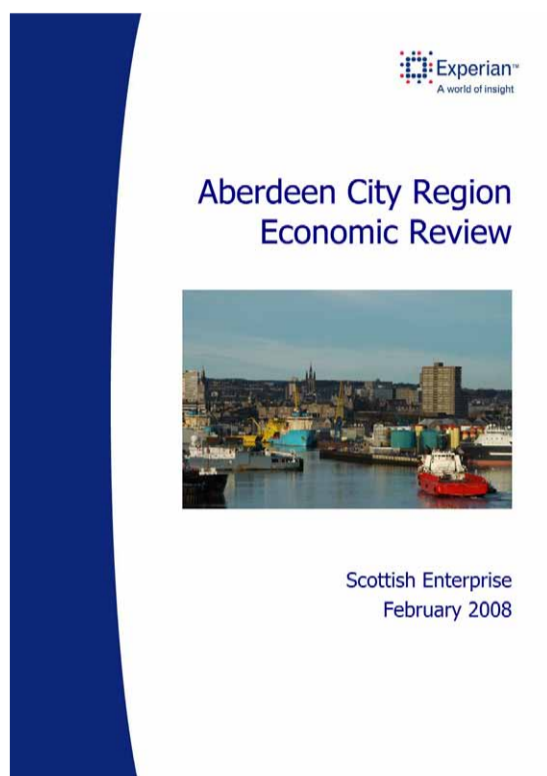
It is anticipated that 'Energetica' will provide land for business use, residential, leisure and retail and education/training. Besides oil and gas related companies the development would seek to attract renewable energy businesses, a new generation of life sciences and software.

## Objectives

The key aim of the project is to produce a strategic framework for the Energetica study area. The framework provides a tangible illustration of a shared vision and key deliverables, meaning that the Energetica concept can be more easily and practically communicated.

The main objectives of the work are:

- To prepare a strategic framework that can be referred to in the Aberdeen City and Shire Structure Plan
- To produce a Development Framework which will illustrate and signpost key developments under Energetica over the next 20 years
- To prepare a Transport Strategy that reflects the theme of sustainability
- To prepare an Economic Strategy that secures a balanced, diversified and sustainable economy
- To prepare an Energy Strategy that promotes renewables, sustainable living and low carbon emissions
- To promote sustainable development that includes industrial/business, educational, infrastructural, residential, retail and leisure developments
- To position Aberdeen City and Shire as a global hub for the development of renewable technology
- To create a shared vision for Energetica



## Approach

The consultancy team held a number of meetings and events over the study period to brainstorm ideas, examine the economy, examine potential for growth and to discuss Aberdeen City's future role as an Energy Capital. This culminated in a charrette, which was held in Aberdeen City and Shire between 27th and 31st March '08. A charrette is an intense period of design activity where there is engagement with stakeholders followed by an intensive strategy and design session. The output of the strategy and design session is then relayed to the stakeholders on the final day of the charrette.

## Engagement Summary

Prior to the charrette, Gillespies contacted key stakeholders to explore their thoughts on Energetica. Professor Stuart Gulliver interviewed a number of key stakeholders, particularly those concerned with the economy. These exercises provided the consultancy team with some useful baseline data before the planned stakeholder workshop in Ellon, Aberdeenshire.

On the first day of the charrette, the consultancy team took part in a study visit of the Energetica Corridor. A representative from SE joined the group to discuss the concept behind Energetica and ways to move it forward.

There were over 100 stakeholders invited to the workshop including councillors, key businessmen and women, representatives from the energy industry, community councils, the public and members of the Chamber of Commerce. A feedback event was held on Monday 31st March where stakeholders were shown the emerging strategy.

A full list of consultees can be found in Appendix 3.



# THE STUDY AREA



## The Study Area

The study area stretches 30 miles from the Bridge of Don at the northern edge of Aberdeen to Peterhead. The area straddles two different planning authorities; Aberdeen City Council and Aberdeenshire Council. Aberdeenshire Council has devolved local decision making to six Area Committees. The three main Committee areas within the Energetica Corridor are Buchan, Formartine and Garioch.

The landscape ranges from urbanised settlements at Bridge of Don and Dyce to rural farmland and coastal areas. The interaction of land and coast has created a rich and varied landscape. The coastal edge is comprised of huge dunes, wide beaches and sheer rock cliffs. Inland areas are comprised of lowlands and uplands. The lowland areas house farmlands, woods, moor and settlements while the uplands are home to pine and spruce plantations. The study area boasts a rich natural heritage that has merited international, national and local heritage designations.

A number of rural service centres such as Cruden Bay, and Newburgh, complement the two main settlements of Ellon and Peterhead. Therefore, the Development Strategy examines the following key node areas in detail:

- Peterhead
- Cruden Bay
- Ellon
- Newburgh
- Bridge of Don & Dyce



## Planning Policy Context

The concept of Energetica is supported within local and regional policy and echoes the objectives for the formation of renewable energy sources and sustainable communities within national policy and guidance.

A revised Aberdeen City and Aberdeenshire Structure Plan 2007-2030 is being prepared and a draft was presented to the Strategic Development Plan Authority in the summer of 2008. The Draft Structure Plan is reflected in the Energetica vision set out within this document.

The Aberdeen City and Shire Economic Future established an appetite and wide ranging support for Energetica and it is on this basis that this study was commissioned.

## 'Building on Energy'

### The Economic Manifesto for Aberdeen City and Shire

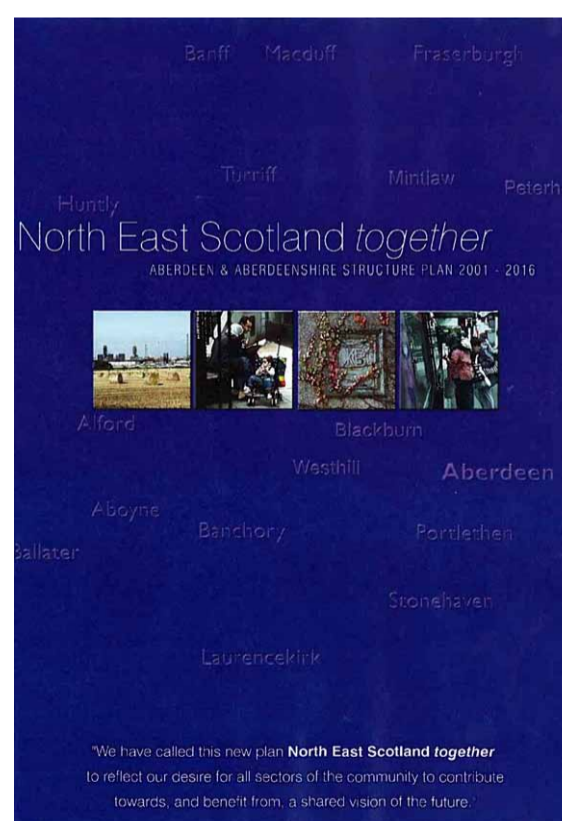
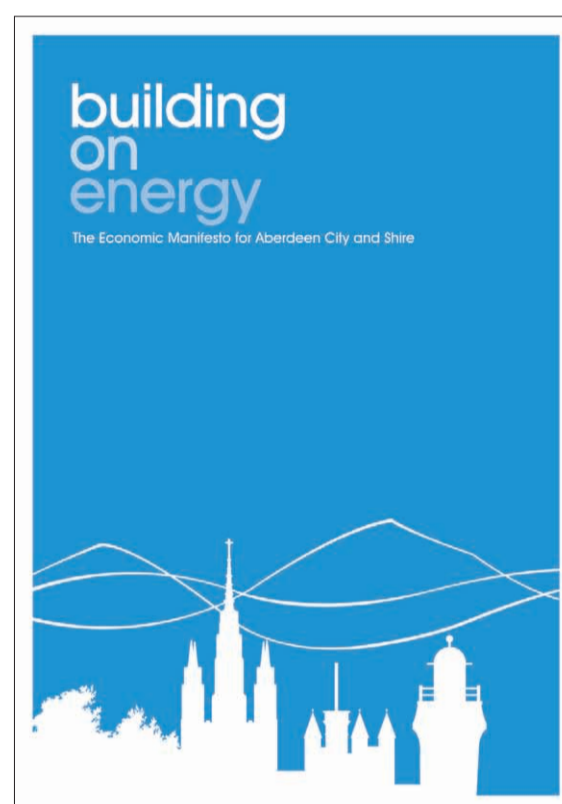
ACSEF is a dynamic partnership of the public and private sector committed to delivering new economic opportunities for the benefit of Aberdeen City and Shire. Building on Energy' sets out a number of strategic objectives aimed at positioning the region at the forefront of the energy economy. It establishes, through consultation with leading businesses, a consensus towards the following statements:

*"We aim by 2025, for Aberdeen City and Shire to be recognised as one of the most robust and resilient economies in Europe with a reputation for opportunity, enterprise and inventiveness that will attract and retain world-class talent of all ages.*

*The location of choice for high value oil and gas and renewable energy organisations, and a first choice for organisations of all sizes operating in other high value, quality niche markets.*

*Our environment, our accessibility and our hospitality will make Aberdeen City and Shire one of the most interesting and enjoyable locations in the UK in which to visit, live, work and grow up."*

The Energetica Strategy works towards realising these ambitions by setting out a robust and deliverable Energy Strategy for the Corridor; taking forward short term energy related projects and promoting forward thinking and responsiveness to developing technologies.



## Regional Planning Policy

### Aberdeen and Aberdeenshire Structure Plan 2001-2016

#### 'North East Scotland Together'

The current Aberdeen City and Shire Structure Plan, 'North East Scotland Together' (NEST) was approved by the Scottish Ministers in December 2001 and sets out the parameters for development in the North East up to 2016. The vision for the North East set out here is to create sustainable communities that increase economic competitiveness and contribute to a high quality of life. The delivery of this vision is based on three principles;

- Responsible management of our natural, built and community resources
- Fairness in allocation of these resources between competing demands
- The need to benefit both existing and future generations

NEST lists core strategic objectives derived from the vision and aims. It recognises the effects that the planning system has on land, energy and fuel and the importance of minimising waste. The core strategic objectives can be summarised as;

- Integration of land use and transport
- Promotion of economic diversity
- Location of homes, jobs and services in scale with each other and with the role and function of each settlement
- Protect, enhance and promote the natural, built and cultural heritage of the North East
- Prioritisation of public and freight transport, cycling, walking and high speed telecommunications

In relation to the objectives of ACSEF it recognises the potential to exploit the skills base available in the North East for the development of renewable technologies.

## Aberdeen City and Aberdeenshire Structure Plan 2007-2030

This document was in draft form and presented to joint committee in the summer of 2008. Its main objectives are to facilitate;

- Economic Growth – encouragement of economic development and employment growth in addition to promoting economic diversification and strategic infrastructure for growth
- Sustainable Development and Climate Change – aim to become a leader in reducing the consumption of unsustainable resources and reducing CO2 emissions.
- Population Growth – increase the population of the area to maintain and enhance the quality of life
- Environmental Quality – ensure that development maintains and enhances the environment
- Sustainable Mixed Communities – development that meets the needs of current and future communities
- Accessibility – ensuring that all new developments reduce the need to travel and promote transport choice

The Draft Plan identifies three strategic growth areas for development up to 2030, one being the Aberdeen – Ellon – Peterhead Corridor which is allocated as an area for economic growth and diversification. Within all three Corridors, there will be a focus on the delivery of sustainable communities with 21st century development standards and infrastructure. The Plan also identifies a number of regeneration priority areas, one of which is Peterhead, as it offers opportunities for improvements to environmental quality and the use of high quality design.

## Local Planning Policy

The Energetica Corridor straddles two planning authorities - Aberdeen City Council and Aberdeenshire Council. Both councils have adopted local plans reflecting the principles of the current Aberdeen City and Shire Structure Plan.

### *Aberdeenshire Local Plan 2006 - 2017*

The Aberdeenshire Local Plan, adopted in 2006, aims to translate regional objectives through detailed proposals for the Aberdeenshire area. The following lists the core aims of the Local Plan;

- To foster and promote economic diversity
- To integrate land use and transportation
- To protect and enhance the natural, built and cultural heritage of the North East
- To promote sustainable forms of transport
- To protect the countryside from development other than what is needed
- To give special protection to local, national and international designations
- To secure a choice of locations for an adequate supply of housing



**Aberdeen Local Plan - 'Green Spaces, New Places'**

The Local Plan for Aberdeen City aims to promote Aberdeen City as a 'global hub of energy'. The plan reflects the NEST core objectives towards;

- Establishment of sustainable communities
- Integration of services within settlements
- Promotion of economic diversification
- Protection of built and natural heritage

The main priority of the Plan is to secure Aberdeen's role as a city of international significance and to enhance the social, cultural and economic performance of the city. The Plan promotes renewable energy development providing it does not incur adverse environmental damage. Furthermore, it encourages development that utilises energy efficient technologies, sustainable materials in construction and incorporates lifetime standards.

## The Economy of Aberdeen City and Shire

“Aberdeen is the most prosperous city-region in Scotland and one of the most prosperous in the UK. The oil and gas industry drives the economy and results in GDP per head and productivity levels far in excess of Scotland and UK levels” **Experian Report**

“Aberdeen is a distinctive micro economy of its own – what drives it is barrel price” **Interviewee**

### The Basic Economic Numbers of Aberdeen City and Shire

• <b>Population Total</b>	443,000
• <b>Total number of Jobs</b>	274,500
• <b>Is the population economically active?</b>	
– the economic activity rate	84%
– unemployment rate	1.3%
	(Only 3,600 people)
<b>How prosperous is the population?</b>	
– GVA per head	£21,638
– Average weekly earnings	£569.4

Above information based on Aberdeen City and Shire Economic Review, 2007

The key dimensions of the economy are shown above and they reveal an economy that is performing extremely well and continuing to exhibit steady growth. Overall performance is obviously greatly influenced by oil prices and its direct and indirect impact on the economy of the region.

Population levels are expected to approach half a million over the next few decades.

The labour market is probably the ‘tightest’ in Scotland with local economic activity rates some 6% higher than the Scottish average and with an unemployment rate at less than half the rate for Scotland.

Gross Value Added per head is the 3rd highest level in the UK and Average Weekly Earnings at £569.4 are 13% higher than the average Scottish level.



### Which industries do people work in? The structure of Aberdeen City and Shire economy

	Estimated Jobs	%
<b>Agriculture, Fishing, Forestry</b>	12,000	5
<b>Energy</b>	40,000	17
<b>Manufacturing</b>	25,500	10
<b>Construction</b>	12,000	5
<b>Service Sector</b> incl. distribution, hotels, restaurants, banking, finance, public administration, education, health etc	185,000	75
	<b>274,500</b>	<b>112</b>

The priority industries for Aberdeen City and Shire as identified by the Regional Strategy are as follows;

- **Life-Sciences / Bio-Sciences:** about 1,500 jobs at present

A small but emerging sector building upon local research capacity, the universities, the presence of Wyeth (major life science company) at the Aberdeen Royal Infirmary Campus and the Biomedical Enterprise Centre at Forester Hill.

- **Tourism and Hospitality:**
- **Food and Drink:**
- **Service Sector:** especially financial, professional services and knowledge intensive business services (kibs).
- **Higher Education / Research**



Professor Stuart Gulliver

### The Energy Economy

*“ There is no doubt that Aberdeen is now a genuine global leader in the offshore exploration and production of oil and gas. It has both a production base on the United Kingdom Continental Shelf (UKCS) and is now a major exporter of high technology capability and expertise – this is ‘know-how’ for a mature basin”* **Interviewee**

*“ With the oil price now exceeding \$100 a barrel – this is the equivalent of the second coming for the North East”* **Interviewee**

Two key elements of the Energy Economy in Aberdeen City and Shire are;

A) **Offshore oil and gas**

B) **Renewable Energy**

The ambition is that close and growing links will develop between ‘renewables’ and the offshore oil and gas industry. This ‘technology transfer’, it is hoped, will lead to economic diversification generally and ‘energy diversification’ in particular.

## A) Offshore Oil and Gas

Business confidence is running at a very high level driven by a very high oil price and a wide range of opportunities for North East based companies in 2 sectors: the North Sea and overseas.

- **A major centre for production in the North Sea**

Providing oil price levels are permissive and investment in technology continues to grow, the North Sea will continue to provide a viable investment and production location for oil and gas companies.

**How long will it last?** Depending upon assumptions about the level of demand, the development of technology and the geopolitical situation, estimates vary from 20 years to 40 years. In 20 years time production will be much lower – in the early days, for example, the size of fields was about 500mn barrels, now the industry is prepared to look at fields as small as 20mn barrels.

Underpinning this confidence is the scale of company expansions, developments and investment in Aberdeen including for example;

Weatherford	-	a new UK H.Q. at Altens
Halliburton	-	new North Sea H.Q. at Dyce
Subsea 7	-	H.Q. expansion in Westhill
B.P.	-	new base at Dyce
Acergy	-	H.Q. development at Westhill
Maersk	-	H.Q. redevelopment in Altens

Also underpinning this success is a strong and complete energy cluster in Aberdeen comprising: a critical mass of oil companies including the 'super majors' and the national oil companies, leading supply companies i.e. top tier oil service companies, contractors, subsea specialists, specialist professional services of finance, legal and insurance.

*"The cluster is second only to Houston in size"*

**Interviewee**

- **A major centre for Overseas operations**

Aberdeen is an important hub for international operations – through the export of offshore expertise and ‘know-how’, especially in West Africa and the Gulf of Mexico.

Many companies are now basing their eastern hemisphere H.Q’s. in Aberdeen – making it one of the most influential cities in the world. Aberdeen has become a ‘Global Centre of Excellence’ in offshore activity generally and in the subsea sector i.e. surface to sea bed, in particular.

“At Westhill is the biggest concentration of subsea engineering skills and expertise in the world – including Subsea 7, Acergy, Technip”. **Interviewee**

### The Ages of Oil

1st Age of Oil – began 1970 with the exploration and production of North Sea oil (UKCS)

2nd Age of Oil – began 2000. North Sea is now a mature basin. Oil production and exploration companies no longer have to be here. Their growing market is in another part of the world. However, they remain here because;

- there continues to be production in the North Sea plus
- the scale and strength of the oil cluster and technology know-how in Aberdeen

But will this technology strength and presence remain after oil runs out or reduces?



B) Renewable Energy

Although there are existing and proposed developments in the Region in wind, biomass and hydrogen it is suggested by some discussants that the ambition to be a 'world leader' in renewables is probably misplaced. Whilst there will undoubtedly be activity in these areas it appears that the best opportunity for the region lies in the technology supporting wave/tidal stream energy. This is probably the 'renewables' niche to develop in the region. The other renewables maybe no more of a niche than anywhere else i.e. on and off-shore wind, biomass etc.

*"Aberdeen's global expertise is in the marine environment – in, on and under the sea. That's the tradition – since fishing began".* **Interviewee**

Aberdeen is not, nor could it be, the 'World Energy Capital' in the broadest sense. Aberdeen has strong niches in energy. However, Aberdeen regards itself as the 'Energy Capital of Europe'. It probably competes for this title with Stavanger in terms of critical mass of companies, levels of investment and sub-sea dominance and expertise.



The Emerging Messages from the Competitiveness Analysis

1. It's a Prosperous and Productive Region

Aberdeen City and Shire is the most prosperous city-region in Scotland and the third most prosperous in the UK. Its performance in terms of the macro economic indicators is outstanding.

2. It's a 'small to medium size city-region' – and city size is important for competitiveness

*"Aberdeen is a small scale place"* Interviewee

With a population well under half a million (the rule of thumb 'tipping point' for competitive city-region size) the all-round competitiveness of Aberdeen City and Shire will be affected. Bigger places, on the whole, can make a 'better offer' to both business and people.

It follows therefore that 'population attraction strategies' must be a key policy area for Aberdeen City and Shire.

3. It's seen as a 'peripheral' city

It is peripherally located in international terms and is well away from the main population centres nationally. It is also **perceived** as peripheral – this makes it difficult to recruit and attract skilled and talented staff; not just in the oil industry but also in other sectors including the universities and business services sector.

*"It's a struggle to get senior people to relocate".*

**Interviewee**

It follows therefore that 'connectivity' will be a key policy area for Aberdeen City and Shire. International connectivity through improved airport connections and national connectivity through road, rail and ICT Infrastructure.

4. It is a 'Global Centre of Excellence' in offshore oil and gas production and in the export of expertise and know-how.

It follows that;

- Aberdeen City and Shire will need to use its clear market leadership to attract new oil and gas related businesses to the area through inward investment.
- Aberdeen City and Shire will need to use its industry leadership to consolidate and grow the energy sector and increase and deepen the energy cluster.
- Energetica should aim to underpin the region's reputation as the intellectual hub of the international oil and gas market
- Image – almost certainly Aberdeen is the 'Energy Capital of Europe'; it will need to consolidate this market positioning.

**5. Perhaps the best opportunity for energy diversification may well be with marine power technology.**

This is where the Aberdeen City and Shire has a comparative advantage and the best opportunities for 'technology transfer'.

**6. The need to diversify the economy is as important as it ever was**

There is a massive dependency on the oil and gas sector for much of the area's economic dynamism.

*"The message from Houston is diversify, diversify, diversify. In 1982 the energy sector was 82% of the Houston economy, in 2007 it was 46%".*

There is always a need to ensure that there is not a strategic overreliance on large multinational companies in these changeable and volatile markets. There will be a need therefore to broaden the appeal of the city-region.

**7. There is a shortage of particular skill-sets**

The labour market is very tight, and market intelligence identifies that it is difficult to attract senior and well qualified technical people to the area. Also, oil and gas has a poor eco image; it is seen by some as a 'dirty' industry – and this affects recruitment levels.

*"It's not a fashionable industry". Interviewee*

The enormous strength of oil and gas and its high price is likely to reduce the urgency with which the economic diversification agenda is pursued.

**8. Internal connectivity is regarded as in need of serious investment**

- There is an urgent need for the Western Peripheral Route to be completed

**9. Aberdeen City and Shire has a good 'Quality of Life' offer**

The main components of this quality of life offer appear to be;

- the outdoor life and its close proximity (the big outdoors and stunning coastline)
- the quality of education in the region
- heritage and culture

It is not really based on the 'urban-offer'.

**10. Land supply for business is an issue that needs attention**

Industrial land in Aberdeen is £0.5mn per acre – almost double the central belt levels

Office rentals have reached £28 per sq.ft – slightly higher than the best currently achieved in central belt.

**11. Shortage of housing is an issue**

A study conducted by DTZ in 2007 highlighted that there was a high demand for housing but low supply of land within Aberdeen City and Shire. This resulted in increased prices and demand in rural areas and along main transport Corridors. In addition, there is a high demand for affordable housing within the City and Shire.



### Explanation of Structure

Section 2 of this document sets out the Strategy for Energetica. The consultant team have conceptualised five strategies, which will be colour coded for ease of reference. The colour coding and order is as follows;

Economic
Energy
Transport
Landscape
Building and Development

Section 3 outlines the delivery strategy required to take forward the concept of 'Energetica'.

Appendix 1 provides a comprehensive review of the Aberdeen City and Shire region. This includes an overview of the study area followed by historical analysis of the City and Shire. A series of analysis maps highlights specific designations within the Corridor.

Appendix 2 explains the engagement process undertaken towards the formulation of this document and the record of comments made during stakeholder events held.

Appendix 3 provides a list of Stakeholders consulted throughout the process.

### Economic

The Economic Strategy sets out the vision and strategic priorities that will guide the overall direction and approach.

### Energy

The Energy Strategy details proposals at a regional and local level that will contribute to meeting urban sustainable development goals set out for the Energetica Corridor.

### Transport

The aim of the Transport Strategy is to increase connectivity within the Energetica Corridor. Accordingly, the Strategy promotes the upgrading of roads and improving connections between the North and South of Aberdeen.

### Landscape

This section has strong ties with the Energy Strategy and sets out the landscape and environmental strategies for the Corridor.

### Building and Development Strategy

The Building and Development Strategy prioritises five areas for development; Peterhead, Ellon, North Aberdeen, Newburgh and Cruden Bay. The broad visions for each of these settlements are a response to the individual needs of each of these areas.

