DEVELOPMENT STRATEGY

Strategic Objectives

In the current political climate, sustainability is the driver for many strategic projects. By coupling masterplanning and sustainability, Scottish Enterprise and its partners aim to create a lifestyle Corridor which attracts dynamic organisations and individuals that will stimulate synergies, innovation, research and development and create a showcase for the energy industry. The Corridor will marry technology with an attractive and sustainable place to live, strengthened by its coastal proximity and diverse landscape value.

Aberdeenshire Council has made a commitment to be carbon neutral by 2020. Moreover, the Scottish Government has set a target of 40% of electrical energy to come from renewable sources by 2020 and as such there are a number of early projects either proposed or planned which contribute to the vision and reinforce commitment to the concept of Energetica:

Energy Technology

- The expansion of the Aberdeen Science and Energy Park and other high quality business locations capable of attracting world HQs
- Development of Aberdeen Airport Development Zone
- Phase 2 of The Aberdeen University Oceanlab at Newburgh
- Peterhead Power Station opportunities for utilization of surplus energy
- Commitment from the two universities in Aberdeen to strengthen research capacity in renewable energy technology
- Initiating activity in energy decommissioning
- Exploring potential developments in subsea technology

Connectivity

Successful places require economic, efficient transport networks and in order for the Corridor to grow and attract business, its connectivity to the city and to Aberdeen Airport must be improved. As such, Aberdeenshire Council has proposed a Transport Strategy in relation to:

- Aberdeen Western Peripheral Route (AWPR)
- Improvements to trunk roads
- Provision of Park and Ride facilities
- Commitment to dual the A90
The Development Strategy

The Development Strategy is based on the desire to create sustainable communities that are attractive places in which to live, work and spend recreation time. Most people want to live in a place with a strong sense of community, a place where they know their neighbours and feel safe. Good homes, local shops, jobs and opportunities for young people are top priorities.

In terms of the long-term sustainable development of an area, the creation and/or support of this type of successful, equitable community, where people choose to live, work and spend their leisure time, is vital. Desirable communities draw people into an area and encourage them to stay - something that is a key driver of economic development and stability.

The world is shrinking and the ways we communicate with each other are becoming increasingly easy with new technology. This has an effect on the way people choose to live and work. People are becoming more mobile and are looking for better places to live, with well designed homes, open spaces and local facilities. Towns and cities essentially have to work harder to attract people. Therefore, the quality of new development becomes even more important as does the adaptability of the housing offer. A key objective is to retain skilled people within the region – which requires a new kind of housing offer to the North East where people can live/work in their home and still communicate through advanced technology to companies based elsewhere.

As well as retaining key people, the Development Strategy aims to attract new people into the area by the creation of a lifestyle Corridor that offers housing, employment and recreational opportunities.

To date much of the growth of the region has occurred to the south and west of the city. However, as demand outstrips supply, property and land values have risen steeply. In both Ellon and Peterhead, there is a high demand for housing. The Corridor provides the opportunity for new housing, especially affordable housing.
The Live/Work Story

Energetica can encourage the intellectual asset that is within the energy-based companies to remain in Aberdeen City and Shire after possible relocations. One scenario for retaining this asset and developing the local knowledge economy is illustrated.
**Biomass Forests**

This diagram conveys the story of how managed biomass forests will contribute to sustainability within the Corridor. It is proposed that the forests will be planted on the edge of settlements and the wood from the forests will ultimately be used as fuel for district heating, biogas and other projects throughout the Corridor.
Hydrogen Highway

This diagram conceptualises the hydrogen highway. It is proposed that there will be three hydrogen filling stations and hire ranks – in Ellon, Peterhead and Bridge of Don.

Members of the car club will be able to book the cars by phone or online and will be issued with a hire code that activates a key card and the car. Members can then return the car to any rank.
energetica
strategic framework
Peterhead

Peterhead will be the strategic northern destination of Energetica. This will be brought about by the dualling of the A90, the hydrogen Corridor and the creation of strategic business opportunities, which in turn will contribute to the growth of the town as a sustainable place to live and work.

Anchoring the Corridor at the northern end will require significant development in Peterhead. Previously, Peterhead has been viewed as a peripheral town where development and investment is not seen to be justified. However, Peterhead has many key assets, including the port, harbour, and fishing industry that need to be maintained and enhanced. The Strategy aims to enhance the perception of Peterhead as a destination where people want to live, work and visit.

One of the first priorities of the Strategy is to preserve and enhance the harbour. The town is nucleated around the harbour - a key focal point that is imperative to the success of the fishing industry. Throughout history, the economic success of Peterhead has been reliant on the reciprocal relationship between the harbour and the people of Peterhead. This presents the opportunity to reinforce this relationship; proposed development on both the North and south side of the harbour will be complementary to each other and reinforce Peterhead as a ‘destination’. Furthermore, development around the harbour will be respectful to the harbour’s natural setting. There are also key development opportunities around subsea, decommissioning and renewables fabrication.

Peterhead presents great potential for growth and development. Consequently, the strategy proposes a large amount of employment land to the south, and housing land to the west and north.
Development Strategy: Peterhead

The above maps show proposed development in Peterhead, with potential housing sites to the west and north of Peterhead and employment land to the south. The map also shows the proposed residential area along the harbour, proposed redeveloped areas in the town centre and harbour, and the location of the hydrogen fuel station.

1. Green boundary planting will act as wind-shelter for proposed housing areas
2. Potentially, both new housing and business development will be heated by the proposed CHP plant
3. Small ponds will contain sustainable urban drainage for proposed housing
4. Development will be orientated to the sun to maximise solar gain
The housing land proposals to the west of Peterhead will be an extension to the existing housing supply. It is possible that the housing supply will expand further westwards and northwards in the longer term to meet the needs of future generations. This proposition for expansion reflects the Peterhead Capacity Study. Additionally, it is proposed that underutilised employment land (located within the proposed housing areas) is relocated to proposed employment areas.

The successful implementation of the built Development Strategy will see Peterhead emerge as a sustainable, liveable and desirable place to live and work. The redevelopment of the harbour will attract business and industry to Peterhead, diversifying its economy and increasing the quality of life for its population.

**Principles**

A number of core principles will underpin the development in Peterhead:

- Peterhead will have a hydrogen filling station
- Improvements to town centre regeneration including arrival points into the town from the north and south
- Development will be orientated to the sun to maximise solar gain
- New forestry planting could potentially contribute to local CHP plants for primarily residential areas
- Green boundary planting will act as wind-shelter for proposed housing areas
- Small ponds will contain sustainable urban drainage for proposed housing
Ellon and Ythan – The Environmental Heart

Ellon is centrally located between Aberdeen and Peterhead, and over the past 30 years has emerged as a commuter town for both centres. Ellon is located on the River Ythan and surrounded by a rich natural landscape and is therefore best placed to become the ‘environmental heart’ of the Energetica Corridor. All new development will therefore enhance Ellon’s unique natural and built heritage.

Ellon’s success as the ‘environmental heart’ of the Corridor is dependent on built development that respects the existing urban form of the area. Proposed housing expansion areas are to the north and south of the river respecting Ellon’s previous growth pattern, the Ellon Capacity Study and an illustrative masterplan prepared by the Prince’s Foundation and Urban Design Associates in December 2007 for Scotia Homes and Barratt.

A green boundary surrounding development will act as an interface to the landscape. Additionally, there will be green planting around the Ythan and the incorporation of Sustainable Urban Drainage into housing development. Buildings will be orientated to the south to maximise energy saving potential.

The dualling of the A90, the development of gas-fired CHP plants and the potential creation of new biomass forests will greatly assist the development and growth of Ellon. The Development Strategy also promotes employment growth to the northeast of Ellon. There is scope for the development of an iconic building to the east of Ellon that is visible from the A90, which will reinforce Energetica as a world class Corridor. The successful implementation of this strategy will result in Ellon emerging, not just as a commuter town, but also as a sustainable location where people can live and work.
Development Strategy: Ellon

This map details proposed development in Ellon, showing potential housing sites to the North and South and employment land to the North East of the town. The map also indicates a redevelopment area within the town centre as well as the location of the hydrogen fuel station and the three CHP plants.
The Capacity Study for Ellon which was recently carried out, explored the scope for the expansion of the town by up to 50%. Subsequently, a Masterplan was prepared by the Prince’s Foundation and Urban Design Associates for Scotia Homes and Barratt, which sets out the requirements for substantial expansion of the town. The Masterplan has been subject to community engagement and it is possible that this growth will occur in the next 5-10 years. New neighbourhood centres are proposed to support new communities by providing local facilities such as new school, local shops etc. These centres are planned within easy walking distance from most homes and therefore the Masterplan sets out a sustainable expansion proposition for the town.

The development of Ellon will reflect the principles within the Ellon Masterplan and additionally:

- Green boundary planting will act as wind-shelter for proposed housing areas
- Small ponds will contain Sustainable Urban Drainage for proposed housing
- Potentially, both new housing and employment uses should be heated by proposed CHP plants
- Development will be orientated to the sun to maximise solar gain
- Hydrogen filling station will be located outside Ellon, adjacent to the A90
- New forestry planting will contribute to local CHP plants
Bridge of Don and the Airport – Ecohub

The Bridge of Don, located to the north of Aberdeen City, will become the ‘eco-hub’ of Energetica. One of the main objectives of the Energetica strategy is to anchor the project at both ends. Consequently, there needs to be comprehensive redevelopment of Bridge of Don to match the proposed development at Peterhead and throughout the Corridor. Currently, Bridge of Don lacks a sense of place and the strategy is committed to ensuring Bridge of Don is a suitable arrival point for a world class energy Corridor.

The opening of the AWPR in 2012 will facilitate the future economic development of Bridge of Don. Currently, development is constrained by sub standard infrastructure, lack of connectivity and accessibility. Increasing accessibility to the airport is a key requirement for the future expansion of Bridge of Don and the airport development zone. In response to this, the Transport Strategy proposes a road, complementing the AWPR, which connects the airport and Science and Technology Park. Business and industrial developments will be located along this road, capitalising on its proximity to the airport.

The quality of buildings, increased connectivity and concentration of intellectual capital should position Bridge of Don as a global hub of energy and development. In addition, the construction of an iconic building or business park where the AWPR meets the A90 will serve as the gateway to the rest of the ‘Energetica’ Corridor.
Development Strategy: Bridge of Don

This map details proposed development at Bridge of Don, showing mixed used areas, residential areas and non-residential areas. The map also indicates a potential access road that could be built between the airport and the A90.
The aim of the strategy is to promote Bridge of Don as the eco-hub for Energetica. Achieving this requires the construction of sustainable, energy efficient buildings that integrate into the surrounding landscape. Accordingly, a number of development principles will assist development in Bridge of Don.

Development Principles: Bridge of Don

1. **Natural Ventilation**
   - Orientation of buildings to the sun
   - Spacing between buildings

2. **Renewable Energies and Energy Saving**
   - Potential for ground source heat pumps
   - Minimise energy demand of R&D buildings

3. **Daylight Systems and Shading**
   - Construction of photovoltaic buildings
   - Construction of buildings with sustainable drainage

4. **Landscaping and sustainable drainage**
   - Construction of buildings with appropriate landscaping and sustainable drainage
   - Green boundary planting to act as wind shelter for proposed housing areas
   - Incorporation of water saving devices into buildings
This Newburgh sketch concept demonstrates new development in Newburgh relative to its context: housing site, local centre, walking catchment areas, contours and orientation to the sun.
Newburgh – an extension of the Environmental Heart

Newburgh lies on the Ythan Estuary to the south east of Ellon. The Ythan provides a natural link between the two settlements, and in the 18th century Newburgh was the main sea entry port for Ellon. Unfortunately, economic changes have resulted in the erosion of this link. The aim of the strategy is to reinforce and promote the natural link between Ellon and Newburgh through the quality, scale and character of new development, overarching sustainability principles and the sensitive improvement to the access and use of the Ythan Estuary.

The strategy proposes the development of housing to the north and west of Newburgh village centre. Proposed development will respect the existing urban form and scale of Newburgh with all new development located within walking distance of the village centre. The focus of development in Newburgh is housing with some commercial activities, although the Ocean Lab and the proposed Ocean Lab II development will generate employment. Ocean Lab II will employ up to 35 people and serve as a lecture and seminar location for professional scientific meetings. The successful implementation of all these developments will promote the attractiveness and desirability of Newburgh as a place to live.

Development Principles
A number of core development principles will underpin development in Newburgh:

- Green boundary planting will act as wind-shelter for proposed housing areas
- Small ponds will contain sustainable urban drainage for proposed housing
- Potential for ground heat exchange systems for energy-efficient residential buildings in combination with ventilation concepts
- The integration of solar panels in buildings for domestic hot water and heating

Conceptual Sketches

Newburgh: Existing

Newburgh: Proposed

Existing Development
Proposed Development
Strategic Green Network
Development Strategy: Newburgh

This map identifies proposed development sites at Newburgh, north and south of the town centre in addition to the site of Ocean Lab II.
These photos show the contrast between the natural heritage of Newburgh and the integration of new developments into the landscape.
Development Strategy: Cruden Bay

This map shows proposed development locations at Cruden Bay - two potential housing sites, redevelopment area and an environmental improvement area around the harbour.
Cruden Bay, located to the north of the Sands of Cruden, offers an attractive and accessible location for development. The harbour, golf course and the coast all make Cruden Bay a desirable location for prospective buyers. Moreover, it is located within easy reach of Peterhead, Ellon and Aberdeen – the main employment centres of the Energetica Corridor. The Development Strategy in Cruden Bay will primarily promote housing development, in addition to sensitive environmental improvements and small scale intervention for the harbours. The proposed housing developments will be within the town centre and set back from the harbour and coast – ensuring key views are protected.

There is also potential to improve the coastal pedestrian footpath (North Sea Coastal Route) into Cruden Bay. This, coupled with the golf course and harbour improvements could result in Cruden Bay emerging as a viable tourist destination.

Development Principles
A number of core development principles will underpin development in Cruden Bay:

• Green boundary planting will act as wind-shelter for proposed housing areas
• Small ponds will contain sustainable urban drainage for proposed housing
• Potential for ground heat exchange systems for energy-efficient residential buildings in combination with ventilation concepts
• The integration of solar panels in buildings for domestic hot water and heating