The Aberdeen Renewable Energy Group (AREG) is a private-public partnership whose remit is to promote the growth of a renewable energy industry in Aberdeen and Aberdeenshire. Established in 2003, it acts as both a membership organisation and as a developer of projects, towards that overall aim.

AREG is working to ensure that its activities make a valuable contribution to the delivery of Scotland’s renewable energy targets. We believe that those targets are both realistic and achievable, although requiring further progress in a number of key areas. These areas include:

(a) reducing the cost of offshore wind development;
(b) harnessing technological innovation;
(c) building the necessary supply chain;
(d) attracting relevant inward investment to the Scottish economy; and
(e) ensuring an effective and timely consenting regime.

The contribution of the AREG membership to Scotland’s renewables targets

The membership of AREG is now approaching 200 organisations, each with an interest in renewable energy. Many are drawn from Aberdeen’s highly-skilled oil and gas supply chain, whose expertise is in increasing demand from those developing the large Round 3 offshore wind farms planned around UK shores.

In a recent survey of its 400 member companies, the Aberdeen and Grampian Chamber of Commerce (AGCC) found that:

“the North-East’s renewable energy industry foresees a bright future both for itself and for the role of the region in delivering renewable energy aspirations to Scotland, the UK and Europe.” And that: “The local business environment was rated as conducive for renewable energy business and as a potential hub for renewable energy in Europe.”

We expect to see these trends continue: increasing AREG membership; an increasing number of Aberdeen companies getting involved in renewables; an increasing role for Aberdeen as a technical asset for this new and exciting industry.

We believe that the UK’s world-leading position on offshore wind development will provide such companies with the opportunities and experience to win work in an emerging global market. In this regard, there are many parallels with the growth of oil and gas development in the North Sea.

The contribution of the All Energy conference and exhibition to Scotland’s targets

The annual All Energy conference and exhibition is held in Aberdeen each May. Now approaching its 12th year, this event is the largest renewable energy conference and exhibition in the UK.
In 2011, there were a total of around 500 exhibitors and over 8000 visitors to the conference. The success of this event helps to reinforce the positions of both Scotland and Aberdeen as focal points for the growing renewables sector.

It is important to note that one of the main strengths of the All Energy event is that it covers all aspects of renewable energy – not only renewable electricity, but also renewable heat and renewable transport.

**The contribution of the proposed European Offshore Wind Deployment Centre (EOWDC) to the delivery of Scotland’s renewable energy targets**

The development of the EOWDC off Aberdeen has been taking place since 2004 by a joint venture between AREG and industrial partner Vattenfall (originally AMEC Wind). The project has submitted a Consent Application to the Scottish Government in August 2011 to build 11 offshore turbines at the site to the north of the city.

The project can make a significant contribution to Scotland’s targets by reducing the cost of offshore wind, harnessing technological innovation, building the supply chain, and attracting inward investment.

The advantages of the project include the following:

(a) the site will be used to demonstrate the new generation of offshore wind turbines which will be necessary to deliver Scottish and UK renewable energy targets. A number of different turbines will be demonstrated, so widening the market and driving competition in this area. (The turbines will however look similar visually);

(b) the site will also be used to demonstrate a new generation of foundation types, again necessary to deliver future targets. We are in discussion with the Carbon Trust to incorporate their work in recent years on this subject;

(c) the site will be used to develop the installation and construction techniques necessary to install large numbers of turbines out on the Round 3 wind farm sites;

(d) the project will also be major provider of green electricity to the city of Aberdeen;

(e) the project will act as an attractor for inward investment to Scotland and the UK;

(f) the site will be used for the training of personnel with the skills necessary to support this new industry;

(g) the site will also be used for the certification of equipment, and the trialing of new components for the industry.

In recognition of these strategic objectives, the project has received wider support:
(a) the European Union has invested 40 million Euros in the project, to help it to achieve its objectives, which are of European significance;

(b) the Crown Estate has leased the site as a recognized test site – one of only two major test sites in the UK;

(c) we also expect that the site will play a key role in assisting the forthcoming recommendations of the UK Government’s Offshore Wind Cost reduction Task Force.

The project awaits the decision of the Scottish Government on its Consent Application.

**The delivery of Scottish renewable heat targets**

The deployment of Scottish biomass resources into the production of renewable heat can make an important contribution to the delivery of targets in this area. In 2005, AREG established the Grampian Biomass Working Group – jointly with the Forestry Commission and Aberdeenshire Council – to promote the growth of biomass projects in NE Scotland.

The work of the group has seen important progress, with the establishment of two wood pellet companies, the introduction of biomass fuel to a number of schools and other public buildings in Aberdeenshire, the employment of biomass heating in a number of high-profile Aberdeen city projects such as the Foresterhill Hospital campus, and the new Council HQ at Marischal College.

Scotland still however has a considerable way to go to emulate Scandinavian attitudes, where the heating of buildings with wood fuel is quite the norm.

It is to be hoped that the long-awaited Renewable Heat Incentive – introduced at the end of 2011 for commercial buildings, but not yet for domestic properties – will help to promote such change.

**The delivery of Scottish renewable transport targets**

This is the area in which least progress has been made towards the development of renewable energy, and Scotland’s energy usage for transport remains largely dependent on fossil fuels.

In Aberdeen, action is being taken to develop a city hub for renewable hydrogen, whereby this medium can be produced by local wind farms to produce a fuel that can be utilized in the transport sector (and also conceivably to meet heating demand.)

An investment of 10 million Euros has been secured to assist with the purchase of 10 hydrogen buses for use in the city and region. This would be the largest such fleet in the UK. Other sources of finance are currently actively being pursued to bring this project to fruition.
Such a project would act as a model for other Scottish and UK cities to realize the benefits of renewable hydrogen as an energy storage mechanism. There would also be significant commercial and R/D opportunities created by the development of such expertise.

In due course, we would expect the development of renewable transport to be supported by comprehensive legislation – a Renewable Transport Incentive – to encourage vehicle fleets to convert to non-carbon fuel systems ie electric and hydrogen-fuelled vehicles.

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