

THE HIGHLAND COUNCIL

TRANSPORT, ENVIRONMENTAL AND COMMUNITY SERVICES COMMITTEE – 18 March 2010

Agenda Item	
Report No	

Renewable Energy – European Marine Energy Centre, Orkney

Report by Director of Transport, Environmental and Community Services

SUMMARY

This report seeks approval for the Leader of the Council's Administration and the Vice Chair of Transport, Environmental and Community Services to visit the European Marine Energy Centre (Orkney) in June (to coincide with the HITRANS Board Meeting) to explore the options for joint working of feasibility studies and sources of European funding for Renewable Energy Fixed Link projects with Orkney Members.

1. Introduction

- 1.1 Members from Highland Council and Orkney Islands Council have previously had discussions by video conference on possible synergies in developing renewable energy opportunities within fixed links and causeways.
- 1.2 This involves tidal energy devices being built into bridges and causeways thus offsetting high cost of infrastructure in a marine environment and lead to savings arising from energy payback and carbon reduction investment.
- 1.3 Suitable sites will require high tidal currents and the opportunity of replacing ferries with a fixed link in the form of a bridge and/or causeway. These opportunities are potentially available in Orkney and the West Highlands.

2. Tidal Energy Options

- 2.1 Tidal energy technologies are still in their infancy, and it is acknowledged that identification of a robust scheme, capable of withstanding the major tidal forces generated, may be some years away. However, a variety of prototypes are being developed, with Scottish Government backing, at the **European Marine Energy Centre (EMEC)** in Orkney, as well as in Norway.
- 2.2 The European Marine Energy Centre (EMEC) is at the forefront of the development of marine-based renewables, technologies that generate electricity by harnessing the power of waves and tidal streams. It is the first centre of its kind to be created anywhere in the world, testing full scale grid connected prototype devices in a live wave and tidal environment.

3. HITRANS Visit to Orkney

- 3.1 HITRANS have arranged to hold their June 2010 meeting in Orkney, and there is an opportunity of combining this meeting with a visit to the EMEC in Orkney to

view tidal energy prototypes at first hand and to obtain further knowledge on this new technology. The Chair of Transport, Environmental and Community Services will be attending the HITRANS meeting in his capacity as Vice Chair of HITRANS.

3.2 In order to progress this initiative further, it is recommended that a site visit to Orkney would be beneficial to:

- have more detailed discussions than have happened previously by video conference
- view the sites being suggested by Orkney and to assess similarity with West Highland sites
- visit the EMEC centre to gain a clearer understanding of the challenges presented by tidal energy and to gain their views on the suitability of suggested sites
- if appropriate, discuss what a feasibility study would consider and identify potential partners.
- explore the opportunity for European monies to fund feasibility studies and tidal energy technology as part of fixed link solutions to connectivity problems in remote communities.

3.3 TEC Services Head of Transport and Infrastructure will be present in his capacity as a Permanent Adviser to the HITRANS Board.

4. Resource Implications

4.1 The travel and subsistence costs will be covered from the Members Budget and is estimated at £500.

5. RECOMMENDATIONS

5.1 Members are invited to approve that the Leader of the Council's Administration and the Vice Chair of Transport, Environmental and Community Services visit the European Marine Energy Centre (Orkney) in June (to coincide with the HITRANS Board Meeting) to explore the options for joint working of feasibility studies and sources of European funding for Renewable Energy Fixed Link projects with Orkney Members.

5.2 Members are invited to note that the Chair of Transport, Environmental and Community Services will be attending the HITRANS meeting at the same time in his capacity as Vice Chair of HITRANS.

Signature:

Designation: Director of Transport, Environmental and Community Services

Date: 5 March 2010

Author: S. MacNaughton, Head of Transport & Infrastructure