

**Highlands and Islands Transport Partnership (HITRANS)**

**Renewable Energy Transport Infrastructure Study**

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## **Executive Summary**

May 2010

## **E Executive Summary**

### **E.1 Background**

- E.1.1 Scottish waters uniquely offer some 25% of Europe's potential off shore wind energy capacity. To realise optimum delivery of support to this sector transport networks have to be available that provide unrestricted and efficient access to the key locations. The Scottish Government has published its National Renewables Infrastructure Plan (NRIP) which proposes investment in port and port-side infrastructure to support the manufacturing, assembly, installation, operation and maintenance of off shore wind, wave and tidal sites.
- E.1.2 HITRANS has commissioned this study to investigate the transportation infrastructure required to service the key sites which could best serve the imminent development, operation and maintenance of the off-shore wind sector. To realise optimum delivery of support for this sector, effective transport networks have to be available that provide unrestricted and efficient access to the key locations.

### **E.2 The Study**

- E.2.1 The objectives of this study were to:
- Review the transportation infrastructure requirements of the off shore renewable energy sector.
  - Identify the investments needed to improve transportation infrastructure to those key port sites which could serve the sector.
  - Appraise the options for this investment and to recommend the most appropriate option to fit with the SE/HIE spatial strategy.

### **E.3 Access Port Identification**

- E.3.1 The Crown Estate has granted awards to develop wind farms in four sites around the region at Kintyre; Islay; the Argyll Array off Tiree; and at Beatrice in the Moray Firth. Consultations with key industry stakeholders through this study have also identified further target areas off the west of Lewis and in the waters off Orkney.
- E.3.2 Stakeholders were asked which ports in the region might be used to serve these offshore wind sites. The NRIP has identified a number of ports can be used to serve the off shore wind sites including Nigg, Arnish, Campbeltown, Ardersier and Kishorn. This study corroborated these and also identified sites at Buckie, Inverness, Wick, Scrabster, Kirkwall, Tiree, Scapa Flow; and Scrabster. Some of these sites would be for assembly while others would be for operation and maintenance.

### **E.4 The transport network constraints and Recommendations for investment**

- E.4.1 The network comprises the trunk roads (A82; A83; A87; A835; A9; A95; A96), the local roads accessing each port's facilities, the region's airports, and the strategic ferry crossings. A number of constraints have been identified on this network during the stakeholder consultation. These comprise:

## Highlands and Islands Transport Partnership (HITRANS)

### Renewable Energy Transport Infrastructure Study

- Pinch points narrowness and poor alignment on the A82 north of Tarbet which cause delay or require diversion.
- Land slips on the A83 at the Rest and Be Thankful which require diversion
- Pinch point at Berriedale on the A9 and poor alignment on sections in Sutherland and Caithness which cause delay or require diversion.
- Poor alignment on the A835 west of Contin which causes delay.
- Local road access constraints have been identified to the port facilities at Campbeltown, Thurso and Wick.
- Road maintenance backlogs on the roads serving the key ports.
- Capacity constraints on the ferry serving Scapa Flow, and
- Poor international air access to the Inverness Airport hub

## E.5 The recommended option for investment in the transport network

E.5.1 These network constraints have been tested against the programme for wind turbine installation contained in the NRIP. By 2016 about 150 turbines are expected to be installed off the south west coast of the region and over 100 in the Moray Firth. Investment should be targeted to alleviate the most significant constraints on the network serving these areas by 2016, with further action as identified in the Report in the medium term. It is recommended that short term action is taken at:

- A9 at Berriedale Braes (£3m)
- A9 North of Tore to Loch Fleet (£13m)
- A82 at Crianlarich and Pulpit Rock (£18m)
- A83 at the Rest-and-Be-Thankful (£6m)
- Argyll & Bute Maintenance Backlog (£1m)
- Highland Maintenance Backlog (£1.75m)
- Local road improvement between Campbeltown harbour and Machrihanish (£m)
- Establishment of air services from Inverness to Amsterdam – Schipol (£1m)

E.5.2 Further recommendations include referring the study findings to the Scottish Government's Renewables Delivery Group; developing local routing strategies for each key port to avoid sensitive areas and to develop local traffic management measures; and that needs for access to Tiree, Scapa Flow at Houten, and Lyness should be further developed with the industry.