The Scottish Government

Realising Scotland's Offshore Wind Potential

David Stevenson

Senior Policy Officer – Offshore Wind Energy

Scotland's Targets

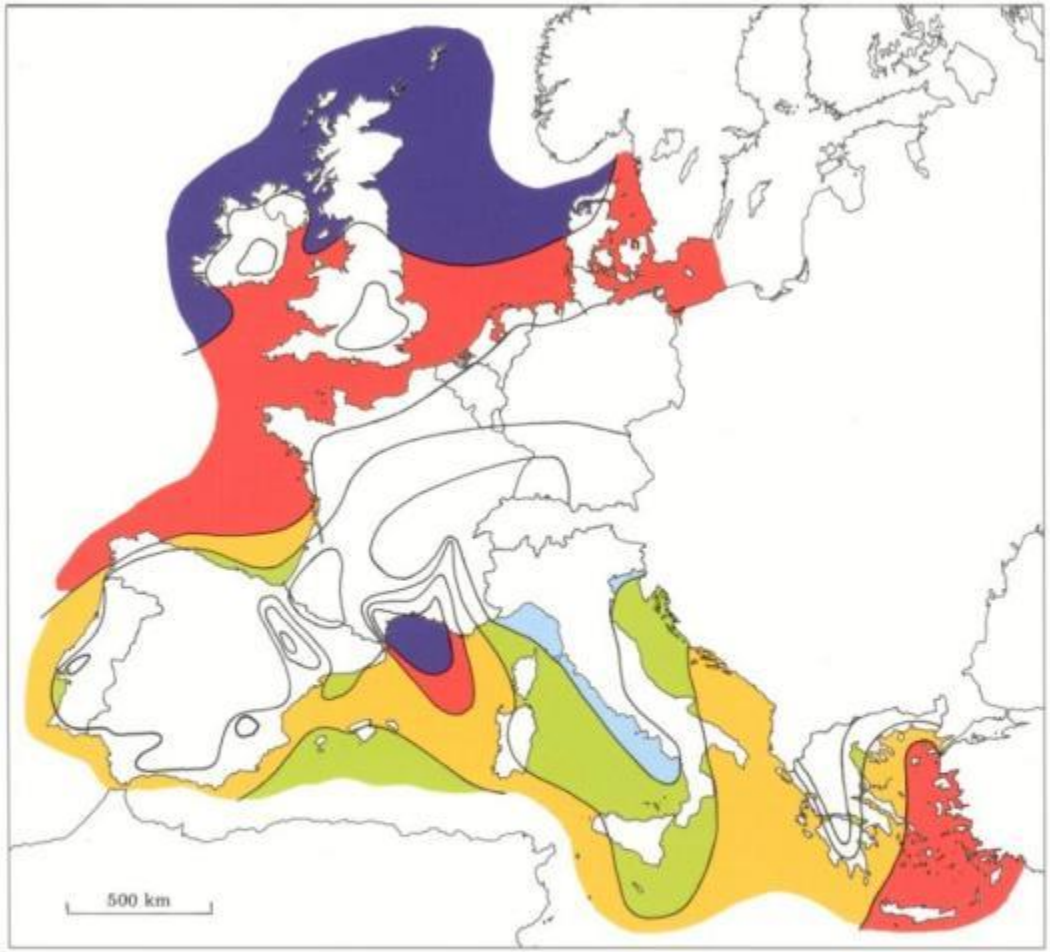
Climate Change Targets:

- **80% reduction** in greenhouse gas emissions by **2050**
- Interim target of **42%** emissions **reduction by 2020**

  The most ambitious targets set by any Government

Renewable Energy Targets:

- **100% of demand** for Scotland's electricity to be met from renewable sources by **2020** (16GW approx)
- **Interim milestone of 50%** set for 2015



Wind resources over open sea (more than 10 km offshore) for five standard heights

	10 m		25 m		50 m		100 m		200 m	
	$m\,s^{-1}$	Wm^{-2}	$m\,s^{-1}$	Wm^{-2}	$m\,s^{-1}$	Wm^{-2}	$m\,s^{-1}$	Wm^{-2}	$m\,s^{-1}$	Wm^{-2}
	> 8.0	> 600	> 8.5	> 700	> 9.0	> 800	> 10.0	> 1100	> 11.0	> 1500
	7.0-8.0	350-600	7.5-8.5	450-700	8.0-9.0	600-800	8.5-10.0	650-1100	9.5-11.0	900-1500
	6.0-7.0	250-300	6.5-7.5	300-450	7.0-8.0	400-600	7.5- 8.5	450- 650	8.0- 9.5	600- 900
	4.5-6.0	100-250	5.0-6.5	150-300	5.5-7.0	200-400	6.0- 7.5	250- 450	6.5- 8.0	300- 600
	< 4.5	< 100	< 5.0	< 150	< 5.5	< 200	< 6.0	< 250	< 6.5	< 300

Overview

Scotland has 206 GW of wind, wave and tidal resources (almost 40% of the total UK resource)

Capacity factors are higher at 40-55%

Scotland has best 100m plus deepwater potential in the UK

Offshore Wind in Scotland

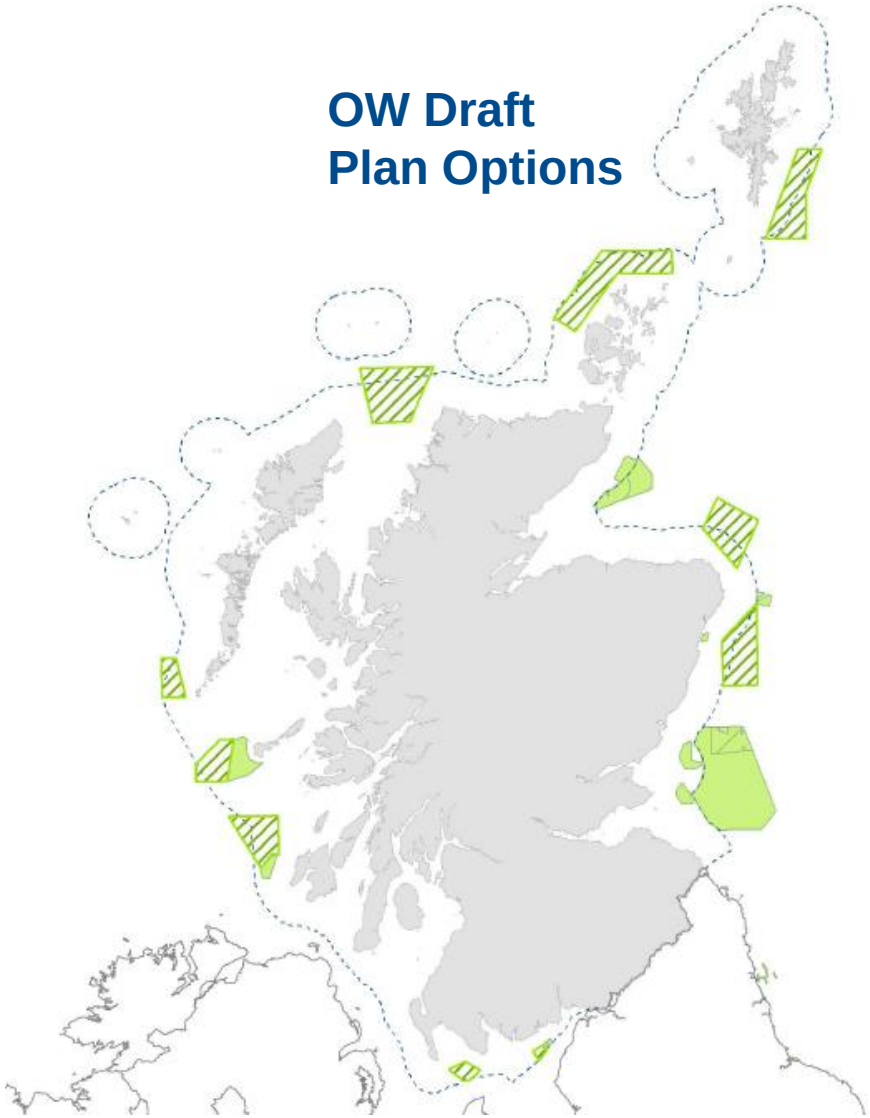
Round Three sites in Scotland

- Zone 1 - Moray Firth (1.3GW)
- Zone 2 – Firth of Forth (3.5GW)
- 4.8GW in total

Scottish Territorial Waters Round

- 5 sites – 2 on the West Coast & 3 on the East Coast
- 4.7GW in total

- Identified 10 further draft Plan Options (Zones)



SCOTLAND'S OFFSHORE WIND ROUTE MAP

DEVELOPING SCOTLAND'S OFFSHORE WIND INDUSTRY TO 2020

OFFSHORE WIND INDUSTRY GROUP (OWIG)

Marine Scotland

The Scottish Government

BLUE SEAS – GREEN ENERGY
A Sectoral Marine Plan for Offshore Wind Energy in Scottish Territorial Waters

PART A
The Plan

Scotland's Offshore Wind Route Map

Developing Scotland's Offshore Wind Industry to 2020 and Beyond

Offshore Wind Industry Group (OWIG)

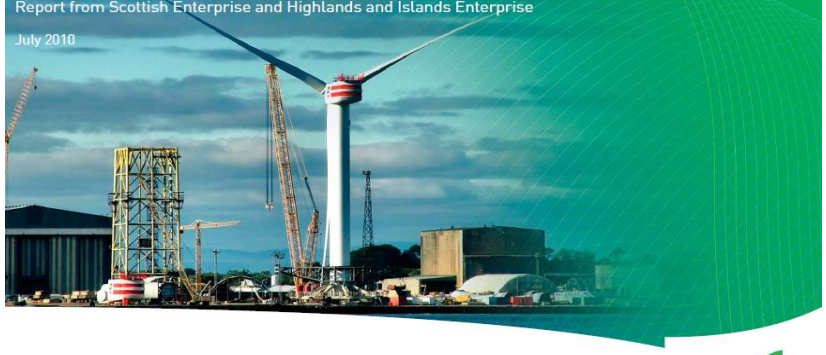
The Scottish Government
Riaghaltas na h-Alba

Offshore Wind
Cost Reduction
Task Force Report
June 2012

National Renewables Infrastructure Plan Stage 2

Report from Scottish Enterprise and Highlands and Islands Enterprise

July 2010



HIE
Highlands and Islands Enterprise
Iomairt na Gàidhealtachd 's nan Eilean

Scottish Enterprise

Offshore Wind - Scottish Government Support

£70m (N-RIF) to strengthen ports and manufacturing facilities

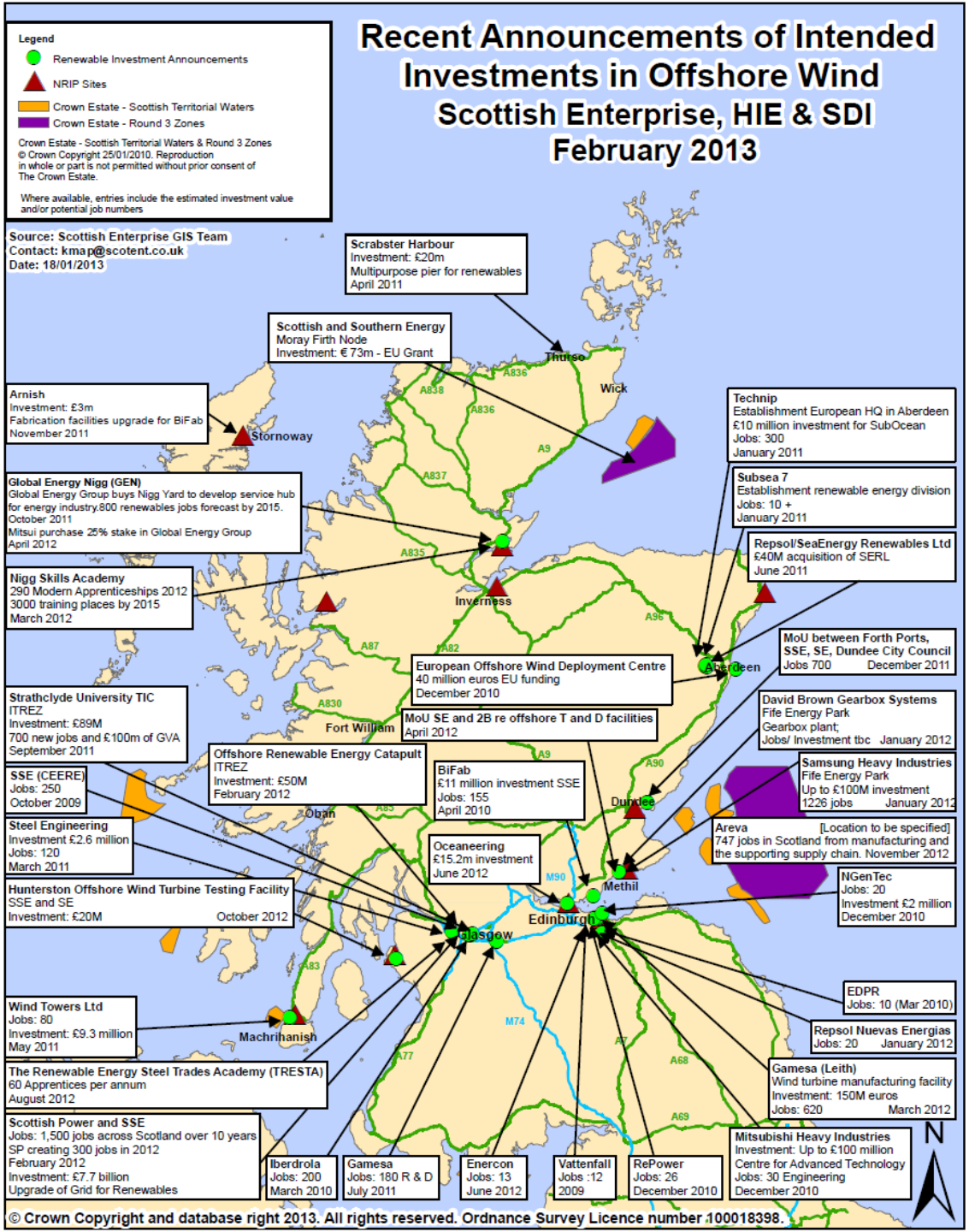
£35m (POWERS) support for wind turbine manufacturers

£15m (SIFT) supporting innovative foundations

Offshore Wind Expert Support Programme

£900k to support developing Scottish Supply Chain

Recent Announcements of Intended Investments in Offshore Wind
Scottish Enterprise, HIE & SDI
February 2013



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Thank you

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