

Beatrice Offshore Windfarm Limited project

Socio-economic impact report, July 2017



Assessing socio-economic impacts

At £2.6bn, the Beatrice Offshore Windfarm Limited (BOWL) project is one of the largest ever private infrastructure investments in Scotland.

After 8 years of careful development, refinement and consent awards, the green light for construction to proceed was given in May 2016.

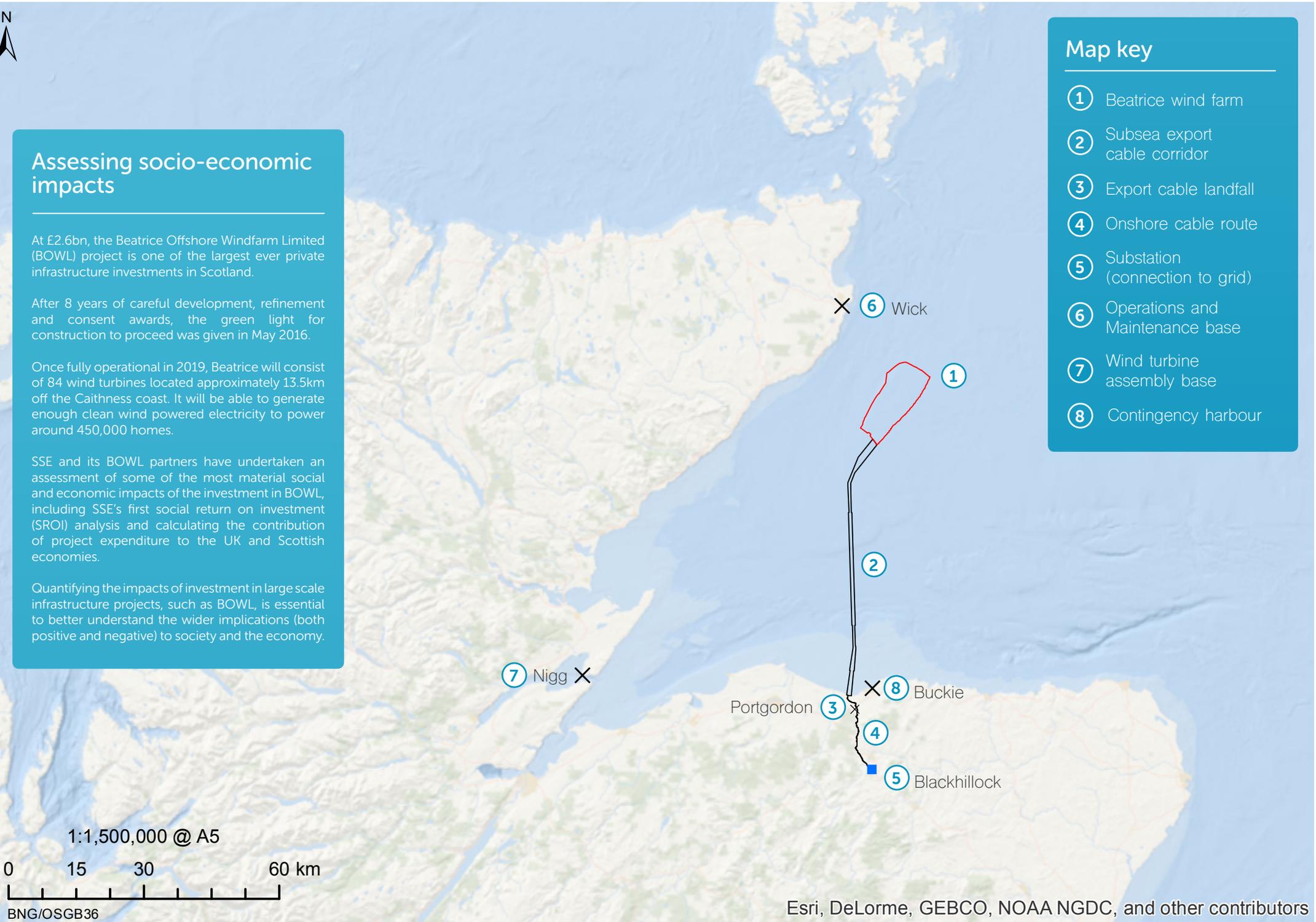
Once fully operational in 2019, Beatrice will consist of 84 wind turbines located approximately 13.5km off the Caithness coast. It will be able to generate enough clean wind powered electricity to power around 450,000 homes.

SSE and its BOWL partners have undertaken an assessment of some of the most material social and economic impacts of the investment in BOWL, including SSE's first social return on investment (SROI) analysis and calculating the contribution of project expenditure to the UK and Scottish economies.

Quantifying the impacts of investment in large scale infrastructure projects, such as BOWL, is essential to better understand the wider implications (both positive and negative) to society and the economy.

Map key

- ① Beatrice wind farm
- ② Subsea export cable corridor
- ③ Export cable landfall
- ④ Onshore cable route
- ⑤ Substation (connection to grid)
- ⑥ Operations and Maintenance base
- ⑦ Wind turbine assembly base
- ⑧ Contingency harbour



1:1,500,000 @ A5

0 15 30 60 km

BNG/OSGB36

Esri, DeLorme, GEBCO, NOAA NGDC, and other contributors

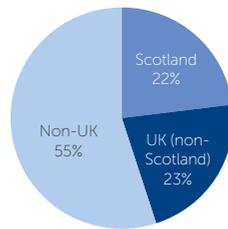
Economic impacts

When complete, BOWL will be one of the largest ever private infrastructure investments in Scotland. SSE, supported by NEF Consulting, has calculated the expected impact to the Scottish and UK economies from this project expenditure.

Contributing to the UK and Scottish economies

The total expenditure on BOWL will be approximately £2.6bn, with around 45% of this investment expected to be within the UK. Much of the non-UK expenditure will be spent on the procurement of goods that the UK does not currently manufacture.

Total BOWL investment = £2.6bn



Adding value to GDP

It has been estimated that the construction of the project could add approximately £1.13bn of value to UK GDP, of which around £530m would be contributed to the Scottish economy.



Each £ sign represents £100m of value added to the UK economy, with the symbols in blue representing the contribution to the Scottish economy.

Supporting jobs

The impact on UK and Scottish jobs is also substantial, with BOWL construction investment supporting more than 18,100 years of full-time employment in the UK, of which around 5,800 would be in Scotland.



Each person represents 1,000 years of full-time employment in the UK, with the blue people representing the years of employment supported in Scotland.

Case study: Wick harbour

Wickharbour has been chosen as the operational base for Beatrice. Two historic derelict Thomas Telford buildings on Wick's harbour front have been purchased by BOWL for restoration and development into the operational headquarters.

The approximate £10m investment will transform the buildings and see them returned to maritime use. Around 90 employees will be based in the buildings once complete.

The image shows the condition of the buildings ahead of commencement of work.



Case study: Burntisland Fabrications

Burntisland Fabrications (BiFab), based in Scotland, was awarded a £100m contract to manufacture 26 wind turbine jackets by Beatrice Tier 1 contractor Seaway Heavy Lifting. Fabrication is being undertaken at all three BiFab sites: Burntisland, Methil and Arnish on the Isle of Lewis.

The contract award has protected around 200 jobs and requires in the region of 22,500 tonnes of steel fabrication.

The image shows preparations for upending the first complete jacket in June 2017.



Calculating the value of the BOWL project

The Input-Output (I-O) economic model was used to calculate this economic impact from project expenditure. The I-O model calculates the direct impact from project expenditure, as well as the ripple effect across the economy from supplier expenditure and employee wage spending throughout the supply chain. The model generates the economic impact through two key indicators – contribution to GDP and years of full-time employment supported. The full methodology for the calculation can be found online at www.sse.com/beingresponsible/reporting-and-policy/.

Social impacts

The investment in BOWL will result in many social benefits, including providing employment opportunities and community funding for local projects. This report focuses on the results of a Social Return on Investment (SROI) analysis for the Beatrice Partnership Fund, which SSE undertook with the assistance of NEF Consulting.

Community funds

The Beatrice Community Benefit Fund is worth a total of £34m over the lifetime of the wind farm. The largest proportion of the fund, £28m, will be distributed through the Coastal Communities Fund – a UK Government programme designed to support the economic development of coastal communities by promoting sustainable economic growth and jobs. The remaining £6m is being administered by SSE's Community Investment Team over a five-year period.

The £6m fund will be split between communities in Highland (£4m) and Moray (£2m). These will both then be divided equally between a local fund, for community council areas close to where project work is taking place, and a Partnership Fund, for communities in the wider region.

In December 2016, SSE launched the regional element of the Beatrice Fund, the Beatrice Partnership Fund. Worth a total of £3m over a five-year period, the Partnership Fund for Highland will cover the communities on the east coast of Caithness and Sutherland. In Moray, it will include all coastal communities and the four local communities, namely Buckie and District, Strathisla, Lennox and Keith. For more information please visit: www.sse.com/BeatricePartnershipFund.

Case study: Covesea Lighthouse

June 2017 saw the announcement of the first round of grant awards from the £3m Partnership Fund element of the Beatrice Fund.

Awards totalling £378,000 were made to 14 different projects across the north of Scotland, including £40,000 to the community-owned Covesea Lighthouse in Moray. The grant award will enable the community company to complete an Education and Heritage Centre, ensuring that future generations have the chance to enjoy learning about the heritage of this iconic landmark.

Social Return on Investment

With the assistance of NEF Consulting, SSE undertook a forecast Social Return on Investment (SROI) analysis for projects that applied to the first round of grant funding from the Beatrice Partnership Fund in 2017.

NEF Consulting and SSE found that for every £1 to be spent by the Beatrice Partnership Fund, the community projects are expected to generate £3.21 in wider value. The £6m Beatrice Fund could create nearly £20m of social value when fully distributed.



Social Return on Investment: £3.21 of wider value created for the local community for every £1 invested.

What is SROI?

SROI is a methodology that lets you understand the wider value created as a result of investing money. It considers the social, economic and environmental impacts of an investment. Critically, all impacts are valued in monetary terms, enabling a direct comparison between impacts and investment. The approach considers the value created for all stakeholders impacted by an investment, not only the intended beneficiaries.

As this is the first SROI SSE has undertaken, it worked closely with local stakeholders to create the framework which informed the SROI calculation. For more information on the methodology used for this assessment, please refer to the methodology document on www.sse.com/beingresponsible/reporting-and-policy/.

Calculating the SROI of the Beatrice Partnership Fund is important as it provides a new qualitative and quantitative way of looking at the value of the funds, aiming to maximise the impacts and outcomes in the future.

Project overview

Beatrice Offshore Windfarm Limited (BOWL) is a joint venture partnership between SSE Renewables (40%), Copenhagen Infrastructure Partners (35%) and SDIC Power (25%).

Partners



SSE is one of the UK's leading energy companies, involved in the generation, distribution and supply of electricity and the extraction, storage, distribution and supply of gas. Its core purpose is to provide the energy people need in a reliable and sustainable way. It supplies energy to around 8 million customers throughout Great Britain and Ireland and is one of the UK's leading generators of electricity from renewable sources.



COPENHAGEN INFRASTRUCTURE PARTNERS

Copenhagen Infrastructure Partners (CIP) is a fund management company founded in 2012 by 5 partners with extensive experience from energy projects, including offshore wind projects. Copenhagen Infrastructure Partners currently manages three funds of approx. 3.5 billion Euros in total. Copenhagen Infrastructure Partners focuses on long term investments in energy and infrastructure assets, primarily in Northern and Western Europe and North America.



Red Rock Power is the UK subsidiary of SDIC Power Holdings Co. a power generation company listed on the Shanghai Stock Exchange. SDIC Power is primarily engaged in the investment, development, construction, operation and management of power projects. The company owns a total installed capacity of 33.1GW, and more than 60% of the portfolio is renewable energy capacities, including hydro power stations and wind farms.

Development timeline

2009
Development begins

2012
Consent application submitted

2014
UK Government awards planning consents

2016
Green light to start construction

2017
Offshore construction begins

2018
First generation of power

2019
Fully operational