



Scottish Council for
Development and Industry

POLICY SUBMISSION

Nigg Development Master Plan: Final Report

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SCDI is an independent and inclusive economic development network which seeks to influence and inspire government and key stakeholders with our ambitious vision to create shared sustainable economic prosperity for Scotland.

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Nigg Development Master Plan: Final Report

1. In its response to the Discussion Draft of the National Planning Framework 2 SCDI said that “the Nigg Fabrication Yard, given the circumstances surrounding its potential re-development and its links to developments in Scotland’s energy sector, should also be considered a nationally significant project.” The Scottish Government subsequently agreed in its Proposed Framework that in the period to 2030 “the fabrication yard at Nigg has potential for decommissioning oil and gas installations and for the manufacture and support services required by the renewable energy industry...Its deep water is an asset of strategic importance.” SCDI also highlighted that the proposal to expand the yard substantially and develop supporting transport and utilities infrastructure have substantial planning implications. SCDI therefore welcomes this consultation on the Nigg Development Master Plan.
2. The business and economic climate has changed dramatically since the Market Report was undertaken and there is now significant uncertainty across a range of industrial sectors. SCDI’s response makes comments based on this current climate on the short and medium term investment in the possible “industrial activities” at Nigg identified in the Market Review. It offers remarks on the implications for the two options for industrial activities which have been considered to bring the site into use. Finally, it comments on SCDI’s view of the way forward.

Market Review - Oil and Gas-related markets

3. The Oil & Gas UK Activity Survey 2008, published in February 2009, reports an 8% increase in potentially recoverable reserves. Oil & Gas UK estimates that there is potentially 25bn boe to be recovered from the UK Continental Shelf (UKCS) over time, and that UKCS production could still be satisfying 65% of the UK’s need for oil and 25% of the UK’s gas demand in 2020, and “provide a significant positive contribution to the UK economy for decades yet to come.” The survey covers £44bn of investment, 66% of which could be made within the next 5 years.
4. The UKCS has remained an attractive region to do business due to its political stability and security. In 2007, the highest number of offshore exploration and appraisal wells was drilled since 1996. The UK Government announced last summer that 193 applications had been made by a total of 131 companies for licenses in the 25th Offshore Licensing Round. This represents the highest number of applications ever made and signifies a 31% increase on the number of applications made in comparison with the 24th Licensing Round. In mid November 2008 the Department of Energy and Climate Change announced a very positive set of results for the 25th licensing round, with 171 new licenses offered to 100 companies covering 257 blocks of the UKCS. This included successful bids from eight companies new to the UKCS.
5. The Oil & Gas UK Activity Survey does, however, warn of declining investment due to the banking crisis, falling oil and gas prices, high costs and an uncompetitive fiscal regime, and that if it is not sustained at current levels “production will be affected and the decline rate will again accelerate post 2010.” Capital investment in 2008 was estimated at £4.8bn – £5bn, 6% lower than in 2007. It is anticipated that investment will fall to between £3.5bn and £4.5bn in 2009, and decline further to the range of £2.5bn - £4bn in 2010. Of the 56 potential new field developments reported, half are less than 15m boe. Exploration and Appraisal Activity is expected to reduce rapidly in 2009/10. While 109 wells were drilled in 2008, 77 wells are expected in 2009 with only 34 having a drilling rig committed (113 wells were predicted a year ago). For 2010 only 10 wells were advised in the survey: a year ago the number was 30.
6. SCDI and Scottish Enterprise will in the near future publish the annual Survey of International Activity in the Oil and Gas Sector for 2007/08. This will show that total oil and gas supply chain sales from the Scottish market increased by 9.9% to reach £14.2 billion. In the domestic market Scottish-based operations recorded £8.5 billion of sales in 2007, a 4.3% increase since 2006. International sales were 19.5% higher and now account for 40% of the total.
7. The main industry category generating UKCS revenues was Services which has driven the increase in domestic activity. The growth in revenues generated by the Service sector means

it accounted for 70% of all domestic sales in 2007. Sales have grown by 12.6% from £5,246.4m in 2006 to £5,905.3m in 2007. The Bulk Materials and Product/Equipment/Material categories have both risen marginally. The Engineering/Procurement sector witnessed a 21.8% decline, with UKCS generated revenues falling from £1,505.1m to £1,176.8m in 2007.

8. The Oil & Gas UK Economic Report 2008 states that some 470 installations, 10,000 km of pipelines, 15 onshore terminals and around 5,000 wells are part of the infrastructure that will eventually need to be decommissioned. Total costs involved in decommissioning the UKCS through to 2040 are estimated to reach £23bn, 15% higher than was expected a year ago. Over the last three years decommissioning dates have moved out as a result of the rise in oil prices. But there is a risk that lower prices will now bring decommissioning dates forward.

Market Review – Renewable Energy Markets

9. SCDI published *The Future of Electricity Generation in Scotland*, a report which it commissioned from international energy consultancy and research company Wood Mackenzie, in December 2008. The report is intended to provide an independent assessment of the development of electricity demand and generation in Scotland over the period to 2020.
10. The concluded that the system is likely to contain sufficient renewable capacity to meet the Scottish Government’s target of 50% of its power demand from these sources in that time.
11. Wood Mackenzie also provided a forecast of renewable generation capacity growth and compared it with the views put forward in the Scottish Government’s draft Renewable Energy Framework. A comparison between these two forecasts is set out in the table below:

Technology	Current (GW)	Renewable Energy Framework Estimate (GW)	Energy 2020	Wood Mackenzie 2020 Forecast (GW)
Hydro	1.4	2.1 to 2.4		1.7
Onshore Wind	1.3	5 to 7		6.6
Offshore Wind	0	1 to 4		0.5
Wave & Tidal	0	0.5 to 1		0.2
Biomass	0.04	0.2 to 0.4		0.4
Total	2.8	8.8 to 14.8		9.3

Market Review – Wind and Energy Markets

12. Wood Mackenzie forecast that onshore wind will increase by 5.5GW, from 1.3GW today to 6.6GW in 2020, towards the upper end of the estimate in the draft Renewable Energy Framework. By way of comparisons, it forecasts that only 2.3GW will be added in England and Wales and around 1GW added in Northern Ireland. Wood Mackenzie’s view is that:

“The growth of onshore wind capacity, as perhaps the cheapest and most accessible form of renewable power, is likely to represent a large majority of the Scottish generation sector’s response to current renewable energy targets...we assume that wind capacity additions in Scotland reach a peak rate of around 450MW per annum. Some slowing of this rate at the very end of the period is assumed as desirable sites become more difficult to acquire and the sector finds itself competing for equipment and investment in an increasingly active international market.” (*The Future of Electricity Generation in Scotland*, p.23 and p.33)

13. Wood Mackenzie forecast that offshore wind will increase from 0GW today to 0.5GW in 2020 – 5% of the total capacity for renewable energy - a much slower growth than has been estimated in the draft Renewable Energy Framework. This contrasts with its forecast that there will be offshore wind development in England and Wales of 6.8GW. Its view is that:
14. “...there will be a noticeable shift from onshore to offshore wind development in the UK during the period, as developers circumvent the planning issues associated with onshore wind

- projects by going offshore and take advantage of the greater flexibility this also provides to locate generation close to demand centres in the southern part of England. Unfortunately, without the introduction of significant offshore transmission networks, offshore wind in Scotland will rely upon much of the infrastructure being used by onshore projects, and seems set to remain less attractive than developments further south as a result.” (p.33)
15. The European Commission’s *Energy Security and Solidarity Action Plan: 2nd Strategic Energy Review* published in November 2008 states that “the development of a blueprint for a North Sea offshore grid, interconnecting national electricity grids and plugging in planned offshore wind projects” should be recognised as an energy security priority of the Community.
 16. As a result of the credit crunch, economic downturn and lower price of hydrocarbons, the global growth in renewables is slowing from the 30 to 40% seen in recent years. However, the European Investment Bank has increased its lending to the sector this year to about a fifth of its total lending for energy projects. This amounts to 3bn euros compared to 2.3bn in 2008. The Bank is considering lending to a large number of big offshore wind projects in the North Sea worth more than 1bn euros. This lending could eventually amount to 7 or 8bn euros.
 17. The Crown Estate has announced that it will be offering exclusivity arrangements to companies and consortia for 10 sites for development of offshore windfarms within Scottish territorial waters. In total, the sites have the potential to generate more than 6GW of offshore wind power. The Beatrice site, which covers an area of 121.3 sq. km in the Moray Firth, was awarded to a consortia of Airtricity Holdings UK Ltd and SeaEnergy Renewables Ltd. It is estimated that the site has the potential to generate up to 920MW. The total investment required to construct this project has been independently estimated at £1.84bn. The Crown Estate Round 3 Offshore Wind Farm identifies another development zone in the Moray Firth which has a potential total installed capacity of 500MW, with the optimum offshore and onshore electricity transmission network reinforcements alone estimated to cost £193m.
 18. The Scottish Government has announced that it will complete a Strategic Environmental Assessment for offshore wind. It is intended that this assessment will ensure that Scotland’s offshore resource is developed in a strategic and coordinated manner. The Scottish Government has stated that it will prioritise the completion of the process within one year.

Market Review – Marine Energy Markets

19. Wood Mackenzie forecast that wave and tidal will increase from 0GW to 0.2GW in 2020, again a much slower growth than was estimated in the draft Renewable Energy Framework. This is incorporated in the “Other Renewables” category of its forecasts. Its view is that:

“...wave and tidal energy remain very much in the pre-commercial stage of technology development. We anticipate that some small marine energy developments will begin generating electricity within the study period. ... In particular, the proposed banding of the RO and ROS are likely to drive forward marine energy investment earlier than would otherwise have been the case. However, the nascent nature of wave and tidal technologies, challenges associated with connecting offshore generating capacity to the grid, and expectations of high capital costs (roughly double those of onshore wind) suggest it is unlikely that a significant volume of marine generation will be connected to the system by 2020.” (p.23)
20. The Crown Estate has invited initial proposals from developers for the UK’s first commercial marine power sites, located in the Pentland Firth and surrounding waters. The Round 1 leasing programme aims to deliver 700MW of new offshore wave and tidal power by 2020.

Market Review - Ship Repair, Dismantling and Related Markets

21. Caledonian Maritime Assets Ltd, which owns the ferries, ports and harbours and infrastructure for the ferry services which serve the West of Scotland and the Clyde Estuary, has estimated that an investment of £200m will be needed in new vessels over the next decade. The Scottish Government has launched a Ferries Review which is due to report later this year.

22. The Market Potential summary mentions that an opportunity exists in the short-term to use Nigg as a subcontractor for elements of the modules for the one-off construction of two new aircraft carriers for the Royal Navy. The delivery dates for the two carriers have now been delayed until at least 2015-2016 and 2017-2018. Each will cost a total of £3.9 billion to build.

Technical Assessment

23. The following oil and gas market sectors are identified as having significant potential at Nigg:
- Inspection, repair and maintenance (IRM);
 - Rig conversion;
 - Decommissioning;
 - Subsea module fabrication;
 - Oil storage; and
 - Ship to ship transfer
24. SCDI notes the comments from the Market Report and the Outline Cost Menu. SCDI understands that there is likely to be significant demand for IRM from major operators and that, due to its relative distance from the major North Sea oil fields, Nigg is more competitive for longer periods of work. Following the identification from research of a market for work on oil rigs which require the use of dry dock, SCDI welcomes the proposal to renovate the Dry Dock at Nigg. SCDI understands that some of the older sheds also need to be modernised.
25. The site has good potential for renewables. The quay and the huge overall land area with long, flat laydown areas make it an excellent potential site for assembly and fabrication. The site would also appear attractive for the development of test and maintenance facilities. The Crown Estate has enabling funding available to invest in harbour and fabrication facilities to make offshore wind more feasible, and the eligibility of Nigg should be further explored.
26. Any business case for the Nigg Development has to identify all the on and off site infrastructure costs and ensure appropriate provision has been and will continue to be made. The Outline Cost menu covers the onsite infrastructure costs in detail. However, it does not do so for some of the offsite infrastructure costs, especially transport. In particular, the Master Plan says that “potential rail access to the Far North Line in the long term would enhance access provision and potentially increase the competitive advantage of the site in the long term”, but it does not indicate from whom and when this major investment would be made.
27. The Strategic Transport Projects published in December by Transport Scotland, which has the purpose of planning the next 20 years of transport investment for Scotland’s rail and trunk road networks, proposes to improve the rail network capacity for passengers and freight between Inverness and Perth, and would dual the A9 from Dunblane to Inverness. But it does not include significant investment in the A9 north of Inverness (but rather safety improvements) or in the Far North Line, such as a 9.5km rail line from Fearn to Nigg Point.
28. Network Rail’s Route Plan for the Highlands published in 2008 mentions only that:
- “The Highland Council is promoting the construction of a deep water port facility in the Inner Moray Firth area. This would provide a UK link into the proposed ‘northern maritime corridor’ with feeder shipping services from the proposed international container port at Scapa on Orkney. If implemented, it could result in a significant increase in rail freight traffic on the Perth to Inverness and Inverness to Invergordon lines.” (*Delivering For You*, p.9)
29. The major improvement planned for the Far North Line is the replacement of old signalling equipment around 2015 which has limited the number of extra trains that could be handled.
30. One of the major benefits of the Nigg Development would be creation of jobs for an average of 750 to 800 full time skilled employees over the next 15 to 20 years in an area which, since the

closure of the Nigg Fabrication Yard, has consistently had the highest rate of unemployment within the Inverness and East Highland area. SCDI believes that the business case should also consider the skills infrastructure. A realistic picture is needed of the resource currently available and what infrastructure is needed to ensure a continuous flow of the skills required.

Options

31. The Master Plan proposes two scenarios in terms of industrial activities for consultation:
 - 1) **Scenario 1 (Option 1)** – multi functional uses comprising oil and gas activities and renewables;
 - 2) **Scenario 2 (Option 2)** – multi functional uses focusing upon the renewables sector (manufacture components, assembly and distribution)
32. Both options present significant opportunities. But there also threats in that they depend on winning work in very competitive markets. This has been the lesson (so far) of the Arnish Yard. SCDI would be interested in some more analysis of Nigg's competitive position and how this may or may not change assuming that it takes two years to complete the Compulsory Purchase Order and around another two years to make the facility ready to accept work. SCDI would also suggest that the weakness of the pound against both the dollar and the euro may change the Market Appraisal of some of the potential manufacturing activities on the site.
33. Determining which Option to prefer is also complicated by the uncertainty of how the current business and economic climate will affect the high levels of investment in both energy sectors. For example, the indications are that major West of Shetland gas production could begin by 2013/14, but this would depend on investment in the necessary pipeline infrastructure.
34. SCDI understands that decommissioning work for oil and gas infrastructure may begin to pick up in 2012 and that two-thirds of the work would probably be from the UKCS. At present, decommissioning work is carried out in Shetland or Teeside, which leaves a large gap in-between. However, Peterhead Port has recently secured funding for a £30m investment which will provide 250m of additional deepwater berthing and 13,000 sq. m of adjacent reclaimed land. This will be its gateway to decommissioning work and completion is scheduled for January 2010. While the decommissioning will be an enormous market, it will still involve "feast" and "famine". It would thus be dangerous for any site to rely on it too heavily.
35. The offshore wind market – where the manufacture of turbines is at present a key constraint and there is the potential for Scotland and the UK to take a technical lead – offers greater promise than onshore wind in terms of developing a wider indigenous supply chain. SCDI understands that SeaEnergy Renewables Ltd, which plans to erect around 180 turbines in the Outer Moray Firth, is interested in using Nigg, which would establish the facility. However, the consenting process means that it would be 2014 at the earliest before construction begins. Fabrication for marine energy devices would probably properly begin at about the same time. While renewable energy generation in Scotland will undoubtedly increase rapidly, as Wood Mackenzie's report for SCDI indicates it may be that, due to inadequate transmission networks, most takes place onshore. Even if more offshore wind and marine energy is developed by 2020, it is by no means certain that Nigg would win this work in tendering.
36. The UK Government remains committed to the two aircraft carriers. But it is a one off project and would not sustain the indicated jobs or the injection of money into the local economy.

The Way Forward

37. The potential socio-economic benefits for the Highlands and for Scotland of the Nigg Development should be considerable and should fully justify a Compulsory Purchase Order.
38. If Nigg is to be developed as a "nationally significant project", it is essential that it does not simply take work away from Invergordon and, furthermore, that it can demonstrate that the scale of investment needed at Nigg represents higher value and a greater opportunity for

Scotland's sustainable economic development than similar sized investments in other options. The business case will stand or fall on this assessment of the future markets and costs.

39. Greater diversification would require a higher level of investment to make the infrastructure suitable for the different assembly requirements, but if Nigg can do the above, SCDI would support a multi-user facility for the site. There is an ongoing focus for the oil and gas supply chain to diversify into renewables and for businesses to position themselves for the substantial alternative opportunities being presented as a result of the Government targets for major deepwater wind developments, and in time wave and tidal energy developments. In the (as yet unpublished) annual Survey of International Activity in the Oil and Gas Sector for 2007/08, it is somewhat surprising that respondents specifically identifying the Renewable Energy market as a source of diversified income only equated £10.8m by value. In comparison, the figure of the Scottish supply chain's trading with the Defence Sector is £32.3m. It would seem sensible for Nigg to develop oil and gas activities and renewables activities, and it may be possible to become a centre of excellence for technology transfer.

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