



Electricity Distribution Network Operators (DNOs), consumers and their representatives and other interested parties

Promoting choice and value for all customers

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Dear Colleagues,

Decision on funding for the Shetlands Northern Isles New Energy Solutions (NINES) Project

This letter sets out our decision with respect to the consultation we published on 5 August on funding arrangements for the Shetland Northern Isles New Energy Solutions (NINES) Project proposed by Scottish Hydro Electric Power Distribution (SHEPD). All responses received were supportive of the project and our proposals and we will therefore implement our proposals as set out in the consultation.

Introduction

Shetland is not connected to the main electricity network in Great Britain. This means that the islands rely entirely on local sources of generation, and the supply and demand on the islands must be balanced locally. At any given time there cannot be more generation than demand, or vice versa, meaning that a significant percentage of the generation must have a reliable and controllable output. At present, there is significant interest from wind generators to exploit the excellent wind resource on the islands. However, it is not possible to offer any new connections to these renewable generators as there is insufficient demand to utilise this type of generation and maintain a stable system. The distribution network on the islands is owned and operated by SHEPD, a distribution network operator (DNO), who are also responsible for balancing the islands' demand and supply.

The majority of Shetland's electricity demand is currently supplied by the Lerwick Power Station (LPS), a 67MW diesel-fired generator. The station provides base load, but its output is also flexed by SHEPD to match the total generation with the demand at any time. The station is old and is becoming increasingly expensive to maintain and operate. It is also in breach of environmental requirements, and has been granted temporary derogations by the Scottish Environmental Protection Agency (SEPA) on condition that the operator (SHEPD) introduces adequate emissions controls or replaces the existing station.

At the last price control review (DPCR5), Ofgem recognised the situation in Shetland and placed a requirement in SHEPD's licence (charge restriction condition, CRC, 18A) to present by 31 January 2013 an Integrated Plan to manage supply and demand on the islands. This Integrated Plan would include the replacement of LPS. Ofgem set out in the DPCR5 Final Proposals¹ that SHEPD must demonstrate in the Integrated Plan that it has examined all

¹ Electricity Distribution Price Control Review. Final Proposals - Allowed revenue - Cost assessment (ref. 146/09) http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntlrs/DPCR5/Documents1/FP_3_Cost%20Assessment%20with%20SS%20comments.pdf

available options to find the most efficient solution; has involved market-based mechanisms, including the possibility to tender the replacement of the power station; and that it has developed partnerships and worked with local communities. It should identify a solution based on the lowest lifecycle costs and meet environmental obligations.

SHEPD has now proposed a pilot project (Northern Isles New Energy Solutions, NINES) as the first phase of this Integrated Plan. The NINES project aims to trial a set of alternative solutions (including demand side response and energy storage) that if successful could be implemented to reduce the overall cost of meeting the electricity needs of Shetland. On completion of NINES, SHEPD will use the learning to inform the second phase of the Integrated Plan, including the replacement of LPS. In particular, it is expected that the solutions trialled by NINES will allow a significant reduction in the capacity of the LPS replacement and enable the connection of more renewable generators.

In August we consulted on whether the NINES project should be pursued. We set out the additional costs that consumers would need to bear in the short term (around £15m) to fund the NINES pilot project, with the expectation that these costs will be offset by savings in the second phase of the plan and bring other benefits, particularly allowing more renewable generation to be connected in Shetland. Since this trial is not explicitly considered in SHEPD's electricity distribution licence, we set out our proposals to modify SHEPD's licence to enable it to be submitted.

Consultation

In our consultation we asked the following questions:

- Question 1: Do you agree that NINES can potentially reduce the cost of ensuring a secure, environmentally compliant electricity supply compared with the option of replacing LPS with a like-for-like power station?
- Question 2: Do you agree with our proposal to change SHEPD's licence to enable the NINES proposal to be submitted as a part of the Integrated Plan?
- Question 3: Do you agree with our proposal to finance NINES using a "totex" approach and to classify it as Integrated Plan Costs?
- Question 4: Do you agree that the risks to the project have been mitigated, and that the potential benefits from the project outweigh the risks

We received ten responses, the majority of which were from individuals or organisations based in Shetland. All respondents agreed with our proposals. A summary of responses is included in the appendix to this letter. Several respondents wanted NINES to be expanded to facilitate more renewable generation connection, or to accommodate potential increases in electricity demand. Whilst the Institute of Engineering and Technology consider that the NINES project should be funded, they argue that this should be on the basis of demonstrating smart grids rather than potential cost benefits. They state that the potential savings to replacing LPS are very difficult to estimate.

The Shetland Renewable Energy Forum stressed that it is important that customers do not become hostile to this sort of scheme due to one off spikes in their bills, and therefore they agreed with Ofgem's proposed approach to funding the project which would involve some costs being recovered from customers over a period of years through a return on SHEPD's regulatory asset base.

Several respondents noted potential risks to the project other than those identified in the consultation. The Institute of Engineering and Technology urge that SHEPD are required to disseminate the learning from the project to the other DNOs, and that therefore the ownership of intellectual property rights (IPR) and know-how generated during the project should be addressed as part of the initial agreement. The Shetland Renewable Energy Forum agrees that the risk of cost overrun should be shared between SHEPD and consumers. However, they propose that a ceiling be applied to the cost of the project which should be set relative to the cost to the consumer of a replacement LPS without NINES.

Decision

In light of the responses we intend to change SHEPD's licence to enable the NINES proposal to be submitted as a part of the Integrated Plan. We are therefore publishing, alongside this decision, a notice under Section 11(3) of the Electricity Act 1989 setting out our proposed amendments to SHEPD's licence.

If there are no objections to our licence modification proposals, the amended licence will come into force on 13 October 2011. This will enable SHEPD to formally submit the NINES proposal, and we will consider it following the process set out in the licence. If we decide to adjust SHEPD's allowed revenues to enable the NINES project to be funded, we will ensure that the project costs are treated in the same way as other expenditures in the price control. This will involve the "totex" approach whereby 85 per cent of expenditure is funded as "slow money" through inclusion in the company's regulated asset value (RAV). The remaining 15 per cent would be funded as "fast money" which is expensed and funded in the year of expenditure. We will set this as an ex ante allowance (ie we would set out, up front, the amounts that SHEPD can include in their allowed revenues). We will also apply the IQI efficiency sharing which operates through the RAV rolling incentive. This determines how any overspend or underspend against allowed revenue is shared between the DNO and customers and will incentivise SHEPD to deliver the project below budget and with any savings shared with customers.

We will issue a direction detailing changes to SHEPD's allowed revenues by the end of November, in order that SHEPD can give the required notice of its charge changes, and apply the new charges as of 1 April 2012. In this direction we will also set out a number of output measures that the project must deliver in order to ensure that SHEPD implement the project as per their proposal.

SHEPD will use the learning from the NINES project to inform their preparation of the comprehensive Integrated Plan which they will submit in June 2013. We will also require SHEPD to disseminate the learning from the project to the other DNOs, and interested parties.

The 2009 Electricity Directive² requires that a party affected by a decision of a regulatory authority be provided with a suitable mechanism for appealing against that decision. The United Kingdom is in the process of implementing that requirement. If you wish to exercise such a right of appeal against our decision in this case, please notify us in your representations.

Yours faithfully,



Rachel Fletcher
Acting Senior Partner, Smarter Grids and Governance - Distribution
Duly authorised on behalf of the Gas and Electricity Markets Authority

² Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC

Appendix: Summary of consultation responses

We received ten responses to the NINES project consultation. These were from various project developers, community groups, renewable energy organisations and private individuals. The respondents were:

Community Energy Scotland	Shetland Heat Energy and Power Ltd
Institute of Engineering and Technology	Shetland Renewable Energy Forum
North Yell Development Council	Smarter Grid Solutions
Shetland Charitable Trust	Cullivoe Technical Services Ltd
Two private individuals	

Do you agree that NINES can potentially reduce the cost of ensuring a secure environmentally compliant electricity supply compared with the option of replacing LPS with a like-for-like power station?

All respondents are in favour of going ahead with NINES and most consider that the scheme can potentially reduce cost when compared to a like-for-like replacement of Lerwick Power Station.

Community Energy Scotland suggest that there may be additional “trickle down” benefits. The scheme may allow more community wind schemes to connect in to the Shetland grid, profits from which are often reinvested in energy efficiency measures.

Shetland Renewable Energy Forum say that there should be an estimate of how much additional capacity for renewable generation on the distribution network there will be as a result of NINES. This should influence the design of the new Lerwick power station. This can also provide better informed estimates of the project’s overall carbon savings.

The Institution of Engineering and Technology are in favour of NINES as a demonstrator for smart grids rather than as a cost saving alternative. They say that changes such as a future high voltage direct current (HVDC) interconnector and emerging fuelling options such as containerised liquefied natural gas (LNG) make cost savings very difficult to estimate.

Do you agree with our proposal to change SHEPD’s licence to enable the NINES proposal to be submitted as a part of the integrated plan?

Respondents agree with this proposal.

Do you agree with our proposal to finance NINES using a totex approach and to classify it as Integrated Plan Costs?

Respondents agree with this proposal, recognising the importance of limiting the impact on consumers’ bills in a single year.

Community Energy Scotland say that it is important that consumers do not become hostile to this sort of scheme due to one off spikes in their bills.

The Institution of Engineering and Technology encourage Ofgem to continue to engage in special cases that fall outside Low Carbon Networks Fund and agree that such trials can justify allowing modest extra consumer costs. They warn that this should not be regarded as a precedent for the way funding is provided for the upgrade of the UK distribution network more generally.

Do you agree that the risks to the project have been mitigated, and that the potential benefits from the project outweigh the risks?

Respondents agreed that risks to the project have been mitigated, but some suggested further risks to consider and additional mitigations:

Smarter Grid Solutions suggest that while all technologies involved in NINES have been previously deployed elsewhere, there is still technological risk as they haven't been used together as an integrated solution.

Community Energy Scotland and *North Yell Development Council* say that there should be acknowledgement of the potential impact of decarbonised heating, which will increase electricity demand.

Community Energy Scotland say there is a risk in delaying or not undertaking the project, as it does not meet emissions legislation.

The Institution of Engineering and Technology say that dissemination of learning from this project will have benefits to the UK, and a condition should be included that requires learning points to be spread to other DNOs and industry more widely. This raises issues around IPR.

Shetland Renewable Energy Forum suggest a cap on the cost of the project that would be set equal to the cost to the consumer of a replacement Lerwick Power Station without NINES.

North Yell Development Council highlight delay risk, as the consenting process can be protracted. They also highlight the lengthy lead time on wind turbine manufacture, and construction delays due to the bird breeding season (amongst other things). These constraints could delay the NINES project so that it might not be delivered by June 2013.

Other points:

Respondents raised some further issues that were beyond the scope of the consultation and, in some cases, Ofgem's responsibility.

North Yell Development Council would like the NINES proposal to include constrained connections for their wind farm and tidal array developments. They would like a fair and transparent system for deciding who gets grid connections.

The two private respondents and Cullivoe Technical Services Ltd are all in favour of additional work to encourage the uptake of renewable technologies. This includes small and large scale renewable generation, pumped storage and district heating schemes outside of Lerwick.

Shetland Renewable Energy suggest an incentive scheme for the installation of demand side management technologies.