

NFLA Policy Briefing No.177



Date: 27th July 2018

Subject: **How Scotland's new energy company could revive renewable energy in Scotland – a personal view by Dr David Toke, Aberdeen University**

1. Overview of report

At one of its recent seminars, the NFLA Scotland Forum invited Dr David Toke, Senior Lecturer on Energy Policy at Aberdeen University, to provide an assessment of the potential for a Scottish Government Energy Company to assist in the development of renewable energy in Scotland. The Scottish Government have recently announced a public consultation on this matter, which the NFLA Scotland Forum will respond to. A Policy Briefing on its response will be provided before the 28th September deadline, and will be considered by the Forum at its meeting on the 20th September. The NFLA Secretary sincerely thanks David Toke for his thought-provoking analysis on this matter which is reproduced in full below. The report will greatly assist the NFLA Scotland Policy Advisor who has been commissioned to put together a full response for the Forum.

2. Executive Summary of the report

The Scottish Government's commitment to start an energy company could re-energise renewable energy in Scotland and deliver electricity at competitive prices for the consumer. The key objective for a new Scottish Energy Company (SEC) must be, in marketing terms, to demonstrate how it can offer a superior product compared to its competitors at a price that is no higher than that offered by its competitors.

The SEC could out-sell rival competitors by giving long term power purchase agreements to new renewable energy schemes. This will achieve a 'quality' selling point that will be unmatched by other electricity suppliers. Although various electricity suppliers boast that their supplies come from renewable energy, usually they only offer PPAs to renewable energy schemes that have been given support on Westminster incentive schemes, the Renewables Obligation and feed-in tariff. The Energy Company initiative should be backed by activities of the Scottish National Investment Bank to offer loans to new renewable energy projects. There are a number of potential renewable energy projects that can be implemented for prices at or below recent levels in wholesale power prices meaning that the Scottish Energy Company could give PPAs to such companies and deliver electricity to consumers at the same or lower prices than other electricity suppliers.

3. Introduction

In October 2017 FM Nicola Sturgeon, in speech to the SNP Conference said that: "Energy would be bought wholesale or generated here in Scotland – renewable, of course – and sold to customers as close to cost price as possible". (Shields 2017)

This report looks at the practicalities of putting this into operation. However a key aspect of this will be to discuss how a Scottish Energy Company could be differentiated from other energy com-

**THE LOCAL GOVERNMENT VOICE ON NUCLEAR ISSUES:
AN ICAN COALITION PARTNER, THE 2017 NOBEL PEACE LAUREATE**

C/o Nuclear Policy, Level 5, Town Hall Extension, Manchester, M60 3NY
Tel: 0161 234 3244 E-Mail: s.morris4@manchester.gov.uk Website: <http://www.nuclearpolicy.info>

panies, all of which claim to provide energy cheaply to consumers, and many of which claim to be 'green' electricity suppliers. The report shall start by taking a brief look at how publicly owned electricity suppliers have fared so far. It then moves on to look at some debate about the Energy Company itself. Then it discusses how a Scottish Energy Company could do better than such efforts by ensuring that new renewable energy schemes came into being that would not otherwise have been commissioned.

4. Publicly owned energy companies

Publicly owned energy companies have been springing up over the last 3 years since the rules for licensing energy companies were relaxed sufficiently to allow this. The results have been mixed in the sense that whilst such schemes might be viable, it is not clear how their non-profit status has necessarily achieved lower prices for the consumer. Indeed the most successful local energy companies seem to be those that have developed their own energy generation, especially through combined heat and power, based on 'private wire' arrangements (Thomas 2017). Of course there is every reason for the Scottish Government to support such activities (e.g. through the Scottish Investment Bank), especially if it can incorporate sustainable technologies such as thermal storage and perhaps large-scale heat pumps.

However the role of the Scottish Energy Company is to sell electricity to the general market, not private wires, and so it has to compete with other electricity companies. Different options have been put forward in a report that was commissioned by the Scottish Government and written by Ernst and Young (2018). Unfortunately, in this report the idea of 'increasing the proportion of energy from renewable sources' is relegated to 'phase two' of the agenda for the Company (see page 16 of this report). In political terms this means that whilst there may be a lot of advertising focus on how the company gets its energy from renewable energy sources, in reality little or no new energy will be sourced from new renewable energy projects - that is unless they would have been started anyway as a result of programmes funded by Westminster.

In taking this line, by assuming that promoting green energy should be done much in the same way as other electricity companies, which is by offering PPAs to existing projects started on the basis of incentive programmes, Scotland is missing a great opportunity to create a very distinctive brand image for a Scottish Energy Company.

What renewable energy projects need are the offer of long term power purchasing agreements (PPAs) lasting say, 15 years. This is needed because unlike fossil fuels renewable energy projects are capital intensive. Even though such projects may be able to deliver energy for the consumer at the same, or lower, price than fossil fuels, they will not be built unless investors and bankers are insulated against the risk of power price market fluctuations. This can be done through the projects having long term PPAs.

5. Prospects for wind power in Scotland

Onshore wind power in Scotland is a particularly cheap resource which can be implemented at recent levels of wholesale power prices. Such wind power, if utilised by energy companies would allow them to buy and sell power at no greater costs, or even less cost than, power which is available from other existing electricity generators. However market distortions, described below, prevent this happening.

Yet the Scottish Government, could through its energy company, ensure that considerable quantities of onshore wind power are developed whilst at the same time delivering electricity to consumers at prices which compete well with other suppliers.

As a report prepared last year for Scottish Renewables indicated, around 1000 MW of onshore wind are available for a price that is around less than recent levels of wholesale power prices (OFGEM 2018, Scottish Renewables 2017). Since then wind power costs have fallen still further meaning that more wind power might be available at such prices, certainly by 2021 when the SEC is set to be launched. Vattenfall, the Swedish multinational corporation, has indicated that it will develop some wind power by selling the power to corporate clients who will buy power the power on the basis of a long term PPA. Some solar farms are interesting some corporate sized electricity consumers in offering them long term PPAs.

However, there is a limited market for this sort of deal because the market is distorted for three reasons. First because the bulk of the electricity market is dominated by the main electricity companies who do not want to offer long term PPAs to renewable developers that will reduce the market for selling electricity from power plant that they own. Second, the smaller electricity companies may not have a sufficiently robust credit rating to encourage banks to lend to developers on the basis of long term PPAs issued by small electricity suppliers. Third, there is a reluctance on the part of electricity suppliers in general to offer long term PPAs to developers when they can pick up power for much the same price by offering much shorter PPAs.

6. How a SEC could deliver new renewable energy projects

As indicated in the last section there are opportunities to deliver at least around 1000 MW of *new* wind power (around 10 per cent of Scottish electricity consumption) at a price equal or less than those supplies obtained from other sources. The SEC could adopt one or both of two options for securing new renewable energy capacity.

First it could offer a set tariff, like a 'feed-in tariff' to be paid for electricity generation over a defined period (say 15 years). 'First come first served' quotas could be set for new capacity in any annual or bi-annual period. Second, the SEC could establish a series of auctions for capacity, something like which is done by Westminster under the systems of issue of contracts for difference (CfD). The difference with Westminster is that this would be done privately by the SEC as mechanism for awarding contracts. Again, the PPAs should last for at least 15 years.

Perhaps the optimum arrangement would be to operate the two methods in parallel, with the feed-in tariff system operating to support community renewables projects, and the auction systems for corporate-owned projects. It may be through this way that community renewables projects with an innovative aspects, for example peer-to peer selling, could be given a slightly higher price compared to corporate projects.

The amount of capacity offered up for being given long term PPAs would be totally under the control of the SEC. The SEC should be given a mandate by the Scottish to achieve targets of capacity to be established by the issue of long term PPAs.

7. State aid rules.

Until now schemes Governments have had to ask permission from the European Commission to organise incentive schemes for renewable energy. This may not now apply if the UK is leaving the Single Market. However even if the UK is still subject to state aid rules, such rules would not stop these proposals since other electricity companies could do exactly as is suggested in terms of issuing long term PPAs for renewable energy.

8. National Investment Bank

The National Investment Bank could offer low interest loans to new, innovative, community owned renewable energy schemes – for example, involving local peer-to peer trading in renewable electricity. The SEC could then offer PPAs to such schemes with a set tariff. Of course, the offer of cheap loans for community renewable energy projects would also be open to schemes with PPAs from other electricity companies as well as the SEC. That must be done to conform to state aid rules, but, perhaps more importantly, even-handedness in the economic policies of the Scottish Government. However, to date, there has been little evidence of electricity companies offering long term PPAs to schemes that do not have support from Westminster based programmes such as the RO, FITs or CfDs,

Conventional renewable energy developers should be able to obtain bank loans on the basis of PPAs issued by the SEC on the basis that a company owned by the Scottish Government will be expected to honour its contractual obligations without fear of them being scrapped through bankruptcy.

9. The SEC could gain a 'quality' brand image

The Scottish Energy Company (SEC) could steal a march on its electricity company competitors by offering a quality brand image. It would project itself as a new renewable energy scheme supplier. The SEC could project this image through being instrumental in ensuring the establishment of

renewable energy projects that would not otherwise exist but for long term PPAs issued by the SEC. That would give it a distinctive appeal that would rate higher than claims of existing 'green' claims by electricity suppliers.

10. Risks and opportunities

Some may argue against the SEC offering long term PPAs to renewable energy projects on the grounds that the wholesale price of energy may tumble, leaving SEC either having to take losses or try to compete offering higher prices. There is a small risk here, but in recent times electricity prices have been heading upwards, and the costs of renewable energy projects have been heading downwards. On top of this even in the worst circumstances any losses are likely to be limited. |On the other hand the potential gain of the SEC being able to uniquely promote itself as a 'new renewable energy supplier are potentially large.

11. References

Ernst and Young (2018) 'Publicly Owned Energy Company: Strategic Outline Case' <http://www.gov.scot/Resource/0053/00533962.pdf>, 29th March, Scottish Government

Ofgem 2018 Electricity prices: Day-ahead baseload contracts – monthly average (GB), <https://www.ofgem.gov.uk/data-portal/electricity-prices-day-ahead-baseload-contracts-monthly-average-gb>

Scottish Renewables, (2017) *Study shows the most competitive onshore windfarms could proceed without subsidy*, <https://www.scottishrenewables.com/news/most-competitive-onshore-wind-projects-baringa/>

A. Shields, (2017) 'Sturgeon proposes publicly owned not for profit energy company' *Energy Voice* 11th October <https://www.energyvoice.com/other-news/152781/breaking-sturgeon-proposes-publicly-owned-not-profit-energy-company/>

N. Thomas, (2017), *Financial Times*, UK local authorities plug into energy market, November 29th <https://www.ft.com/content/e341d6b6-d110-11e7-b781-794ce08b24dc>