

# Nuclear Free Local Authorities

# briefing



Date: 19<sup>th</sup> May 2017

No.160

**Subject: Decentralised energy update – continuing progress across local government**

## i. Overview of briefing

This briefing has been developed by the NFLA Scotland Policy Advisor on the request of the NFLA Secretariat. It has also been published on the website <http://www.No2Nuclearpower.co.uk> – an excellent website for those interested in national and international energy and defence policy. The report follows on from the detailed suite of information the Nuclear Free Local Authorities has developed in the past year on the growth of renewable energy and energy efficiency projects from a wide range of local authorities. NFLA strongly supports the development of decentralised energy as a logical policy response to the need to move away from nuclear power and fossil fuels, reduce carbon emissions, tackle fuel poverty and assist in the mitigation of climate change.

This report is also a further update on the continued progress of decentralised energy nationally and internationally. It reviews innovative policy within this area which can help local government move forward with developing such projects. It shows the important and essential role local government can play in the development of low carbon energy.

## 1. Introduction

In October 2016, the No 2 Nuclear Power website published a briefing entitled “*Local Authorities and Energy: Building a Fairer Low Carbon Energy System*”:

<http://www.no2nuclearpower.org.uk/news/campaign-update/local-authorities-and-energy-building-a-fairer-low-carbon-energy-system/>

A version of this was also published by the Nuclear Free Local Authorities (NFLA):

<http://www.nuclearpolicy.info/wp/wp-content/uploads/2016/11/A265- NB152 -Decentralised-energy-best-practice.pdf>

This report had built on earlier work commissioned by Claudia Beamish MSP entitled: “*The role of Local Authority Energy Companies and Community Energy Co-operatives in Building a Low Carbon Energy System for Scotland*” published on the Microgen Scotland website in July 2016:

<http://www.microgenscotland.org.uk/wp/wp-content/uploads/2016/07/LocalAuthorityEnergy.pdf>

This report pulls together and updates this earlier work. It will look at:

- The climate context;
- The global movement to establish towns and cities committed to 100% renewable energy;
- The work of the Association for Public Service Excellence (APSE) in co-ordinating local authority collaboration to maximise the opportunities for working together on the green energy agenda;
- UK Local Authority renewable energy projects and how they can be financed;

## THE LOCAL GOVERNMENT VOICE ON NUCLEAR ISSUES

- Some recent examples of Local Authority renewable energy projects;
- The establishment of Local Authority Energy Service Companies

## 2. Carbon Context

Four years of current emissions would be enough to blow what's left of the carbon budget for a good chance of keeping global temperature rise to 1.5°C. That's the conclusion of analysis by Carbon Brief, which brings the Intergovernmental Panel on Climate Change's (IPCC) carbon budgets up to date to include global CO<sub>2</sub> emissions in 2016. For a 66% chance of staying below 2°C we have an estimated 19 years left. (1)

According to an article in *Nature* barring unforeseen and transformative technological advancement, anthropogenic emissions need to peak within the next 10 years, to enable us to achieve a realistic pathways to meeting the Paris Agreement. (2)

It short this means all hands to the pump. It is not sufficient to wait for national governments to take action – we all need to play our part and maximise our effort over the next decade.

## 3. 100% Renewables – a global movement

Local Authorities across the Globe are showing an increasing interest in energy. In June 2016 the Global Covenant of Mayors for Climate & Energy, which represents more than 7,100 cities, and more than 600 million people, agreed to work together in an unprecedented alliance to tackle climate change. Michael Bloomberg, Former Mayor of New York City, writing in the *Guardian*, said:

*“One of the best steps national governments can take to fight climate change is to empower their cities with the tools and autonomy they need to act.”* (3)

The Global Covenant Mission Statement says the cities participating in this initiative commit to targets that will eventually be more ambitious than those their respective national governments presented in Paris. (4)

There are now more than 25 cities and towns in the US committed to sourcing 100% of their power from renewables, including Salt Lake City and San Diego, after Madison in Wisconsin and Abita Springs in Louisiana both agreed in March 2017 to draw up plans to reach the target. Following respective city council votes, both cities have become the first within their states to commit to sourcing 100% renewable power, and joined the Sierra Club's Ready for 100 campaign aimed at getting 100 US cities to commit to the ambitious target. (5) Ready for 100 is asking mayors, pastors, principals, civic and community leaders, parents, and students in cities large and small to commit to solutions that will help achieve 100% clean energy across the US by 2050.

Portland and Multnomah County in Oregon is the latest municipality to top commit to the 100% by 2050 target. The plan is to meet all electricity needs from renewable sources by 2035, and to transition away from all remaining dirty energy sources, primarily fossil fuels in the transportation sector, by 2050. (6)

Former New York City Mayor Michael Bloomberg and former Sierra Club Executive Director Carl Pope, have co-authored a book which will be published in the UK on 30<sup>th</sup> May 2017, called *Climate of Hope - How Cities, Businesses, and Citizens Can Save the Planet*. This conveys the authors' belief that urban areas, local and state government, business, and individual action (including exercising the right to vote) can turn the tide in the fight against climate change. (7)

*“It's easy to be despondent about climate change,”* Bloomberg and Pope write in the preface to their book. The difficulty of preventing the earth's temperature from rising sounds enormous enough to make people give up and just hope for the best. *“We see it differently. Through our work with cities, businesses, and communities, we believe that -- without much help from [Central Governments] - we are now in a better position to stop climate change than ever before.”* Cities are getting the job done. Despite Government inaction, mayors and other municipal leaders are moving full speed ahead with

some of the most ambitious goals and actions to reduce carbon emissions and move us ever-closer to the achievable goal of 100% renewable energy.

Around the globe, Paris, Sydney and Vancouver have all pledged to power their cities with 100% clean energy. An organisation called Renewable Cities aims to triple that number by 2020 (8) *“100% clean energy is the new standard for climate leadership,”* says Sierra Club Executive Director Michael Brune. *“Local leaders know that going all-in on clean energy will create jobs, boost their economies, and protect clean air, water and our climate.”* Paris Mayor Anne Hidalgo, in nuclear France, said, *“Mayors of the world are ready for 100 percent renewable energy by 2050.”* (9)

#### **4. The Association for Public Service Excellence (APSE)**

The Association for Public Service Excellence (APSE) has been developing a model for local government operating during an age of austerity which recognises the strategic advantages of a strong core of in-house services. In particular APSE Energy supports its members in keeping abreast of developments sweeping the energy sector, and argues that local authorities should take a leading role in shaping the transition to a low carbon local energy economy as large energy users, as investors in infrastructure via their planning and economic development roles, as organisations that private sector suppliers are keen to collaborate with and, crucially, as bodies with a democratic mandate to act positively on behalf of local people. (10)

Energy provides a real area of opportunity for local authorities. The trailblazers are showing what councils can do, and there is no reason why others cannot follow in their footsteps. APSE Energy’s vision is to tie together energy use, energy efficiency and renewables with the core values and aims of the local authority itself – promoting economic growth and tackling fuel poverty. With effective collaboration between a large number of local authorities APSE seeks to enable and facilitate the municipalisation of energy services. This means the public and community as well as private ownership and managerial control of local energy generation and supply networks and delivery of energy efficiency works.

#### **5. UK Local Authority Renewable Energy Projects**

In 2016 the UK Government effectively removed financial incentives for renewable projects. The Renewables Obligation does not now apply to solar farms of either above or below 5MW and whilst the Feed in Tariff regime does still technically apply, the rate is very low and combined with the capacity cap effectively means that this avenue to finance is also closed off. Consequently new projects have to proceed on a different basis, with more focus on what happens to the power generated and how this can enhance the business case.

Standard solar projects where an organisation like a local authority might build a solar farm and sell electricity to the grid may not currently achieve a high enough rate of return. But this doesn’t mean that local authorities should give up - there are other options.

The first option for a local authority would be to undertake all of the preparatory work on a solar project and then wait for the price of solar panels to fall. Grid parity when solar PV costs no more than fossil fuel generated electricity is not far away. We can expect the cost of solar panels to have fallen sufficiently over the next couple of years to make new projects viable.

A second option might be to build a solar project now but to boost the financial return by maximising the income from or value of the electricity generated. This can be done by:

1. creating a private wire to a nearby user or the council's own premises to allow the solar electricity to be sold at the retail price rather than the lower wholesale price it might achieve if it were sold to the Grid (or for the council to save the retail cost for every kWh it no longer has to buy from the Grid);
2. entering into a sleeving operation to council premises elsewhere using the national grid – allowing the council to save the difference between the retail and wholesale price minus a fee for use of the Grid;

3. using battery storage and selling power when it is most valuable at peak times via the National Grid or the Capacity Market, or simply allowing the council to use the electricity itself in the evening or when there is no sun;
4. setting up an Energy Services Company (ESCO) and selling power at the retail price direct to domestic customers or local businesses or entering a white label deal with a pre-existing ESCO; A Green Power Purchase Agreement can also boost income. For instance council-owned Bristol Energy has a green plus tariff which sells electricity at a slightly higher price.

The easiest solution is for a council to use the power itself. It is then able to save paying, say 10p/kWh for each unit of power it consumes, rather than only receiving around 5p/kWh by selling it to the grid.

If it's not possible to use the power on site or to supply a user by way of a private wire cable which the authority owns, then solutions using the national grid have to be considered. The power could still be delivered to the local authority via the national grid using an arrangement known as sleeving. This simply entails the electricity being exported into the grid where it is generated and then taken out at the various offices and buildings that the council owns and operates in the area.

## **6. Is there a Winning Formula?**

The feed-in tariff (FiT) is no longer enough on its own for projects to be viable. Projects which rely only on FiTs might only be able to achieve a return of perhaps 1%. Projects that incorporate some form of storage capacity might be able to boost this to a 5% return. But projects that use a private wire or use the electricity on-site might achieve up to 12%.

The winning formula, according to the Solar Trade Association, (11) is to reduce the cost of buying the solar PV panels (costs are continuing to fall); increase the price the electricity is sold at and add some luck and institutional drive in the council.

## **7. A Local Strategy**

Despite the gains to be made over 70% of local authorities across the UK have no strategy in place to invest in solar. The lack of incentives from central government is seen by many as the main barrier to deploying council solar, according to a survey carried out by LG Solar. The company sent Freedom of Information requests to 435 local authority bodies with a range of questions covering their solar strategies. Responses were received from 332, with 47% claiming reduced subsidies in recent years have left it difficult to invest in solar. The second most cited reason for councils failing to invest in future solar was the lack of capital to front investment. (12)

Nevertheless some local councils have been successful in developing new solar projects and plans despite diminishing subsidies. Local councils across the UK are emerging as one of the key actors in the large-scale solar market now that the Renewable Obligation Certificate (ROC) scheme finished in April 2017. Historically, council progress in identifying council-owned land and organising the necessary paperwork to take a site through to fully-discharged planning approval has been slow, and in many cases, either FiT rates had been reduced drastically by the time things were ready to break ground for the site build. Today however, with the subsidies largely over, this hurdle is no longer in play. And in the meantime, the cost of building solar farms is coming down in spite of the exchange rate deterioration post Brexit. As such, there is plenty of optimism that councils could emerge as the first real post-subsidy vehicle for new solar development. (13)

Local authorities also need to develop energy storage strategies, so they will not be left behind when this new technology takes off, according to Association for Public Sector Excellence's (APSE) associate Ray Noble. He said the price of energy storage systems will come down "faster than solar". Councils need to put in place the right strategy or work with government to produce the right networks to make certain it happens in their area. Noble said storage will change the face of the energy market beyond recognition. (14)

## 8. How can Local Authorities finance renewable projects?

How do you unlock the vault? Local Authorities potentially have access to billions of pounds, according to the Solar Trade Association including:

1. Reserves – the public sector is hoarding billions according to Eric Pickles. Some projects will come to the fore, so an LA might decide it can get a better rate of return from, say, a solar park. Three different Local Authorities invested in the Swindon Solar Park (see below).
2. Housing Revenue Account – could be used to fund solar on rooftops.
3. Capital Projects – solar can be used to mop up unspent capital project funding
4. Public Works Loan Board – long-term money at low interest rates. One authority borrowed at 2.7%. Most will be 3.5-4%. Lots of ways LA finance teams can play with how they pay the money back. (Probably the second best option)
5. Bond Offers – (as in Swindon) – a long time since public sector projects used this type of finance. Swindon was done with Abundance. A partnership with the community. Minimum investment £5. (Probably third best option)
6. Share Offer. There is a £10m share offer in London with a 4% rate of return imminent.
7. Joint Venture – conventional deployment with a private sector company can reduce capital cost and reduce the interest payments. A JV with a solar company can reduce costs by cutting out the middle man.
8. Commercial borrowing – why – unless it's really cheap?
9. There is a recent example of an LA pension Fund using funds to finance solar. The door is opening slowly. (15)

## 9. Recent examples which illustrate different ways Councils can make solar pay

### a) Forest Heath District Council

Forest Heath District Council in Suffolk has bought a solar farm using capital reserves - the Toggam Farm solar farm, in Lakenheath. The Council finalised the purchase of the 12.5MW site on 19 August for a fee of £14.5 million. The council says the solar farm, which began generating power in June, will bring in £300,000 in the first year from renewables subsidies, even after the capital outlay has been recouped. This is expected to rise to just over £700,000 per year after a decade, bringing in millions for the council over the 25 year project. The council turned to solar to make a better return on its investments. The Council is now looking to follow up on the purchase with plans to become a local energy provider. (16)

### b) Havering London Borough Council

Havering London Borough Council has put forward plans to build two of its own solar farms – a 6MW farm on a former landfill site and a 9.5MW project on scrub land.

The council intends to fund the proposed solar parks using its own capital budget reserves. However, it is also looking at the potential to release a portion of the capital cost to the public to allow residents to invest directly in the solar parks alongside the council and receive a better, long-term, financial return than would be possible from normal bank or savings accounts. There would also be a community fund set up to maintain and improve the area for the benefit of local people. The Council has recently completed five rooftop installations on council-owned properties. In total nine of the council's buildings now have solar panels, generating more than 450kW of energy and saving the council over £2 million over the next 25 years through smaller energy bills and income from generating electricity. (17)

### c) Swindon Borough Council

Swindon Borough Council is building a second solar farm funded by a unique council solar bond, which raised over £2.4 million from more than 800 investors in just six weeks. Following the success of its first investment offer, which raised £1.8 million from community investors to co-fund the Common Farm development at Wroughton, the council launched a second offer in November 2016. The bond offer closed on 23 December after selling out over a month early, with the remaining £3

million needed to meet construction costs of the Chapel Farm solar park being invested directly by Swindon Borough Council.

The second farm, with a 5MW capacity, is on a council-owned former landfill site at Blunsdon. The project is being developed by Public Power Solutions, a wholly owned company of the council.

The council plans to install 200MW of renewable capacity by 2020. Chapel Farm takes the current figure to 167MW – over 80% of the target. Profits from the solar farm are expected to make a contribution towards community initiatives while also funding a council manifesto pledge to build a sound barrier along the A419 dual carriageway. (18)

#### **d) Hounslow London Borough Council**

Hounslow Council says it was the first local authority to incorporate battery storage into a solar project after investing £2 million to install a 1.73MW array atop Western International Market (WIM). In the first year alone, the project was expected to reduce carbon emissions by 50% and earn the council £255,000 each year.

Charles Pipe, energy manager at London Borough of Hounslow, said: *“While the Government’s dramatic cuts will impact solar deployment, there are still options available to local authorities. All energy installations must meet specific criteria and have as close to a seven-year payback as possible. Solar can meet this and more – offering immediate savings and the potential for more in the future. For our project at Hounslow, we expect to make several million in the next 20 years. It can and does work, councils simply need to understand that solar investment is no longer a risk.”* (19)

#### **e) Bristol City Council**

Bristol City Council has signed a Power Purchase Agreement (PPA) with a local sports stadium. Bristol Sport is set to benefit from significant savings on its energy bills after completing the deal with the Council to purchase energy generated from new solar panels installed on the West stand of the Ashton Gate Stadium. The partnership has seen the council fund the new 117kW solar installation as part of the stadium’s refurbishment which will produce clean energy to be sold to Bristol Sport at a reduced rate for use on site. In exchange, the council will gain revenue from supplying the power, alongside an income from the feed-in tariff for generating the electricity. The installation was carried out by EvoEnergy and is expected to generate around 95 MWh per year. Due to the stadium’s size and activities, all of the electricity generated from the rooftop system is expected to be used on site. (20)

Independent consultant and local authority expert Stephen Cirell says councils should be using PPA style schemes to increase solar deployment in response to government subsidy cuts. *“Power purchase agreements (PPAs) with commercial tenants of local authority owned buildings, or indeed the council simply using the electricity in the buildings it occupies itself is the answer,”* he said. (21)

#### **f) Portsmouth City Council**

Portsmouth City Council (PCC) has been rolling-out solar schemes worth up to £10 million with PV panels being installed on council owned buildings across the city between 2016 and 2020. The council hopes to deploy over 2MW each year. The interesting point, however, is that Portsmouth City Council is proposing to carry on, where many other authorities have called a halt to such work, due to the FiT rates plummeting. What the council has done is to recognise that despite the business cases losing a large chunk of government subsidy, a good financial return can still be achieved by taking a different route. Most local authorities are large users of electricity and the prices they pay for it average around the 10 pence per kWh mark. So if solar PV can be fitted to those buildings that need the electricity and it can be used on site, the business case still stacks up. Instead of there being a payment of so many pence via a FIT, the council makes a saving on the electricity bill it would otherwise pay. (22)

### **g) West Sussex County Council**

West Sussex County Council is to invest up to £3 million in the roll-out of solar across schools in the region in a scheme intended to create new revenue for the council and save the schools millions. Following a successful pilot in 2015, the local authority's Environmental & Community Services Select Committee approved an expanded programme to install solar PV systems in up to 52 additional schools in 2017/18. The original plans put forward by the ECSSC suggested between 38 to 48 schools however this could now increase, although they were unable to confirm an exact number. (23)

### **h) Neath Port Talbot Council**

Thousands of new and existing homes are to be fitted with a range of low carbon technologies including integrated solar PV and battery storage systems as part of landmark funding agreement for the Swansea Bay area of Wales. UK and Welsh government ministers signed the Swansea Bay City Region (SBCR) deal on 20 March which secured £1.3 billion for the region, one of the biggest investments to ever be secured in Wales. Among the various programmes to be initiated using the SBCR funds is the Homes as Power Stations project to be led by Neath Port Talbot Council. (24)

### **i) Isles of Scilly**

The Isles of Scilly are to be used as a test hub for smart energy technology in a £10.8 million project backed by the EU and Hitachi. The project will see rooftop solar panels and new energy management systems installed on 100 council-owned homes, about a tenth of the islands' housing stock, with the households receiving discounted electricity. Ten of the homes will also be fitted with batteries or other technologies to help manage lags between supply and demand. A subsequent phase of the Smart Energy Islands project is expected to see electric cars deployed on the archipelago, with their batteries also used to help manage supply and demand. By 2025, the project aims to cut electricity bills by 40 per cent, meet 40 per cent of energy demand from renewables and for 40 per cent of vehicles on the islands to be either electric or low carbon. (25)

### **j) Stirling Council**

Stirling Council completed the 1,500th installation of solar PV on its housing stock in March and paved the way for battery storage to follow its lead. The install was completed on a new build bungalow in Bannockburn as part of a wider renewable investment scheme launched to alleviate fuel poverty and reduce the council's carbon footprint. To date more than £8 million has been spent on delivering the solar rollout, and the council has now committed to invest an additional £4.25 million over the next two years to install solar on an additional 1,200 homes. And battery storage technologies could also feature in future installs should the results of an initial pilot scheme in 50 homes be deemed a success. German battery manufacturer Sonnen has been selected to provide the storage systems. This will enable tenants to optimise self-consumption of their solar energy, thus saving more money on their bills. Tenants can use the battery to tap into off-peak electricity tariffs, as well as connect other loads such as heating, or hot water. (26)

### **k) Glasgow City Council**

Seven primary schools in the Glasgow area are to be fitted with solar panels with a combined total capacity of 350kWp under plans by the city council. Each of the schools will receive a 50kWp system to be installed by Campbell & Kennedy (C&K), which must design, install and connect the systems by the end of April 2017. A statement from Glasgow City Council said: "This project will enhance the council's commitment to the sustainability and resilience of these schools whilst providing a practical teaching resource for pupils. (27)

### **l) Fife Council**

Fife-based Living Solutions (LS) has taken delivery of a new hybrid Renault Kangoo van, supplied by local company – Bright Green Hydrogen (BGH). The Levenmouth Community Energy Project – led by BGH in Methil, Fife – is a collaborative initiative supported by Fife Council and Toshiba. This new

development involves demonstrating that hydrogen derived by electrolysis using surplus electricity generated by wind turbines and solar panels can be used to power vehicles. It is the first project of its kind in Scotland to use green hydrogen to fuel a fleet of hybrid/electric vans to the road. This new vehicle will add to Living Solutions' green credentials, as they are already working to create an eco-friendly zero emissions tree-surgery service – as they ramp up their contracting business. (28)

#### **m) Barnsley Council**

Through its Energise Barnsley scheme Barnsley Metropolitan Borough Council is aiming to install solar panels on 5000 council homes. So far 321 have been fitted with free solar panels saving tenants an average of £130 to £150 per year on their energy bills. The 'Barnsley Solar Bond' raised £800,000 in investment in under three months over the summer of 2016. The remaining finance for the project is through a long term loan from ethical lender, Charity Bank. (29)

A new £250,000 trial to demonstrate how home batteries can increase capacity on the electricity network and enable more homes to install solar panels has been launched. Distributor Northern Powergrid has chosen Moixa Smart Batteries to be installed in 40 homes and linked in a virtual power plant. Solar panels will also be installed in 30 homes through the Energise Barnsley community energy initiative to test how the solution can reduce peak solar output onto power networks when there is low local demand. Northern Powergrid is funding installation of the batteries in Oxspring, near Barnsley. If successful, the project is expected to help network operators save "millions of pounds" for customers by reducing the need to upgrade infrastructure. (30)

#### **n) North London Boroughs**

Camden, Islington and Waltham Forest Councils have joined forces for the '24/7 Solar' project, part-funded by National Energy Action. It will test the potential benefits of storing daytime electricity generated by solar panels to supplement the household's evening use. This will provide evidence as to whether the technologies can effectively reduce the energy bills of those householders in or at risk of fuel poverty. Councillor Meric Apak, Cabinet Member for Sustainability and Environment said: "Solar plus storage is of huge interest to Camden Council. Fuel poverty is a very serious issue, blighting people of all ages and circumstances nationwide and storing solar energy can be one of the methods to offer our tenants significant savings to help reduce this burden." (31)

### **10. Wind Turbines to Fund Social Housing**

The examples above of recent local authority action on renewable energy all concern solar power. But other forms of renewable energy could also be used for innovative projects. A wind turbine project in Cardenden in Fife, is supported by Ore Valley Housing Association. The turbine will benefit the local community, not only by providing clean, green energy but also through funds raised through profits. Ore Valley intends to use at least 50% of the profits to provide support for the community through grants and investments for local projects and enterprises. (32)

Meanwhile Berwickshire Housing Association (BHA) and Community Energy Scotland (CES), have launched a new joint company called Berwickshire Community Renewables. In a groundbreaking initiative the company has installed three wind turbines to generate income to deliver hundreds of new homes in a scattered rural community. The two partners eventually expect to make £30m from selling the electricity to the grid – with BHA getting £20m and CES the remaining £10m to help fund other projects. (33)

### **11. Establishment of an Energy Service Company (ESCO)**

Nottingham City Council has become the leader in establishing a municipal energy company by setting up Robin Hood Energy (RHE) - the first local authority-owned electricity and gas company since the electricity industry was nationalised in 1948. Since Robin Hood Energy was launched by the Council in September 2015, it has become one of the cheapest suppliers in the East Midlands.

It is a not-for-profit company which is fully licensed for commercial supply. Its key social objective is to tackle fuel poverty, so it is predominantly aimed at domestic customers. It is installing smart

meters prioritising customers who have traditionally used prepayment meters. RHE is also creating local and high quality new jobs. (34)

In addition other objectives include:

- Enabling local ownership of renewable generation
- Supporting community energy projects.
- Matching local generation to local demand by using Power Purchase Agreements.
- Acting as a vehicle to assist other local authorities develop municipal energy models including Energy Service Companies.

Setting up the company was a huge and complicated process with over 146 contracts having to be signed. Nottingham is now sharing this experience with other Local Authorities. Robin Hood Energy (RHE) is also working with a number of Councils to allow them to become a 'white label' supplier which means they won't hold a supply licence, but instead will work in partnership with a licensed 'partner supplier' to offer tariffs under their own brand. (35) The first to take up this offer and launch is Leeds City Council, which has launched White Rose Energy – a partnership between the Council and RHE. (36)

The Association for Public Service Excellence (APSE) has agreed to provide capacity to deal with the inquiries being received by RHE and to support those local authorities that are taking the idea forward. They will also have a role in ensuring the RHE message gets out to all local authorities, housing associations and other public sector providers. (37)

The cost of establishing a supply company has been estimated at between £2m and £5m. RHE cost around £2.5m to set up. Setting up a company with an electricity supply licence to sell electricity directly to members of the public can be complex and expensive. But if all of the various hurdles can be overcome it means the full value of any electricity being generated by the authority can be secured. Another option is to partner with a pre-existing company that already has an electricity supply licence. This can be done through a 'licence light' or a 'white label' deal. The white label idea is based on the premise that local people trust their local council and it has a unique position to influence them to switch suppliers. By doing so it ensures that customers are treated more fairly.

'Licence light' is an arrangement with an existing electricity supplier which allows the 'licence light' holder not to fully comply with all of the onerous conditions that normally apply to a company with a supply licence. APSE considers this type of licence to be flawed, and, in fact, has effectively been overtaken by events. As well as Nottingham City Council, Bristol City Council has obtained a full supply licence. Bristol Energy has even wider goals. Fully open since early 2016, the company aims not just to supply energy at competitive prices – it reckons its tariffs can save customers an average of £250 a year – but to invest in community-based renewable generation and ultimately in renewable heat supply as well. Bristol Energy forecasts a 12% return on the council's investment after five years, rising to 35% after 10, with money reinvested for social good. Bristol Energy wants to support locally generated renewables by increasing the amount of renewable energy it can purchase through Power Purchase Agreements (PPAs). (38)

Cheshire East Council has established a 'white label' arrangement with Ovo Energy. Its neighbour, Wirral Council, has become the latest local authority to announce plans to set up its own energy company probably through a white-label arrangement. A longer term aspiration is to establish a Liverpool city region "Fully Licenced Operator" arrangement similar to Nottingham City Council's Robin Hood Energy. (39)

Liverpool City Council has already announced plans to form a community energy company called the LECCy offering "white-labelled" tariffs of Robin Hood Energy

Leicester City Council and Leicestershire County Council also have plans to create a not-for-profit energy scheme to help combat fuel poverty and encourage poorer residents onto cheaper tariffs. The partnership has been in the works since December 2015 when the councils agreed to put out a joint tender for a suitable energy supplier. (40)

Warwickshire County Council is also planning to build an additional six solar farms and to set up a council-run energy company. (41)

## 12. Conclusions and recommendations

This report confirms continued and extensive interest across local government of all political hues in developing decentralised energy, an idea popular not just in the UK and Ireland, but across the world. The excellent research work of the Association of Public Sector Excellence is presented here to give NFLA members and wider local government a clear direction that will continue development of decentralised energy despite the problems UK government policy has created in this area.

The report also shows some excellent examples of best practice across the country. It also shows how some Councils are moving a stage further and looking to join the likes of Nottingham and Bristol Councils in creating Energy Service Companies. In this and the NFLA's earlier reports on these matters in the UK and Ireland it is clear Councils retain a strong appetite for such policies as they reduce carbon emissions, promote renewable energy and energy efficiency and reducing fuel poverty.

NFLA recommend this report is read widely across local government by Executive and Lead Members on energy and environmental policy and council officers delivering energy policy at the local level. For further advice please consult the NFLA Secretariat. This report will be placed on the NFLA website <http://www.nuclearpolicy.info>.

## 13. References

- (1) Carbon Brief 5<sup>th</sup> April 2017 <https://www.carbonbrief.org/analysis-four-years-left-one-point-five-carbon-budget>
- (2) Nature 13<sup>th</sup> April 2017 <https://www.nature.com/articles/ncomms14856>
- (3) Guardian 22<sup>nd</sup> June 2016 <https://www.theguardian.com/sustainable-business/2016/jun/22/michael-bloomberg-global-covenant-links-600m-people-and-7000-cities-fight-against-climate-change>
- (4) Climate Progress 23<sup>rd</sup> June 2016 <https://thinkprogress.org/thousands-of-cities-from-six-continents-just-agreed-to-work-on-climate-change-e68e919774ae>
- (5) Business Green 27<sup>th</sup> March 2017 <http://www.businessgreen.com/bg/news/3007236/25-us-cities-commit-to-100-per-cent-renewable-power>
- (6) Oregon Live 10<sup>th</sup> April 2017 [http://www.oregonlive.com/environment/index.ssf/2017/04/portland\\_multnomah\\_county\\_comm.html](http://www.oregonlive.com/environment/index.ssf/2017/04/portland_multnomah_county_comm.html)
- (7) Sierra Club 17<sup>th</sup> April 2017 <http://www.sierraclub.org/planet/2017/04/climate-hope>
- (8) Globe Series 14<sup>th</sup> Dec 2015 <http://www.globeseries.com/blog/2015/12/14/taking-it-to-the-streets-how-cities-will-help-make-the-paris-agreement-real/>
- (9) Eco Watch 16<sup>th</sup> Dec 2015 <http://www.ecowatch.com/san-diego-passes-strongest-city-wide-100-clean-energy-law-in-america-1882130015.html>
- (10) Investing in Electricity: Reducing costs and increasing income for local authorities, APSE Energy, October 2016. <http://www.apse.org.uk/apse/index.cfm/local-authority-energy-collaboration/investing-in-electricity/>
- (11) How Local Authorities can fund solar, improve their finances and enable service delivery; Solar Trade Association and PV Financing Webinar 13<sup>th</sup> March 2017; Presenters: Isabella O'Dowd, Solar Trade Association and James Owen, Clean Tech Consultancy.
- (12) Solar Power Portal 15<sup>th</sup> Feb 2017 [http://www.solarpowerportal.co.uk/news/cuts\\_to\\_subsidy\\_and\\_funding\\_leaves\\_over\\_70\\_of\\_councils\\_without\\_a\\_solar\\_strategy](http://www.solarpowerportal.co.uk/news/cuts_to_subsidy_and_funding_leaves_over_70_of_councils_without_a_solar_strategy)
- (13) Solar Power Portal 15<sup>th</sup> October 2016 [http://www.solarpowerportal.co.uk/news/havering\\_london\\_borough\\_council\\_puts\\_forward\\_plans\\_to\\_build\\_15.5mw\\_of\\_solar](http://www.solarpowerportal.co.uk/news/havering_london_borough_council_puts_forward_plans_to_build_15.5mw_of_solar)
- (14) Utility Week 16<sup>th</sup> March 2017 <http://utilityweek.co.uk/news/Councils-must-develop-energy-storage-strategies/1298302>
- (15) How Local Authorities can fund solar, improve their finances and enable service delivery; Solar Trade Association and PV Financing Webinar 13<sup>th</sup> March 2017; Presenters: Isabella O'Dowd, Solar Trade Association and James Owen, Clean Tech Consultancy.

- (16) Solar Power Portal 22<sup>nd</sup> August 2017  
[http://www.solarpowerportal.co.uk/news/local\\_authority\\_buys\\_up\\_12.5mw\\_solar\\_farm\\_with\\_capital\\_reserves](http://www.solarpowerportal.co.uk/news/local_authority_buys_up_12.5mw_solar_farm_with_capital_reserves)
- (17) Solar Power Portal 15<sup>th</sup> October 2016  
[http://www.solarpowerportal.co.uk/news/havering\\_london\\_borough\\_council\\_puts\\_forward\\_plans\\_to\\_build\\_15.5mw\\_of\\_solar](http://www.solarpowerportal.co.uk/news/havering_london_borough_council_puts_forward_plans_to_build_15.5mw_of_solar) and Romford Recorder 6<sup>th</sup> October 2017  
<http://www.romfordrecorder.co.uk/news/environment/havering-council-could-switch-to-solar-energy-with-panels-in-upminster-and-harold-hill-1-4725464>
- (18) Solar Power Portal 4<sup>th</sup> Jan 2017  
[http://www.solarpowerportal.co.uk/news/swindon\\_council\\_completes\\_community\\_investment\\_round\\_for\\_second\\_solar\\_farm](http://www.solarpowerportal.co.uk/news/swindon_council_completes_community_investment_round_for_second_solar_farm)
- (19) Solar Power Portal 15<sup>th</sup> February 2016  
[http://www.solarpowerportal.co.uk/news/cuts\\_to\\_subsidy\\_and\\_funding\\_leaves\\_over\\_70\\_of\\_councils\\_without\\_a\\_solar\\_strategy](http://www.solarpowerportal.co.uk/news/cuts_to_subsidy_and_funding_leaves_over_70_of_councils_without_a_solar_strategy)
- (20) Solar Power Portal 27<sup>th</sup> July 2016  
[http://www.solarpowerportal.co.uk/news/bristol\\_city\\_council\\_completes\\_ppa\\_project\\_at\\_local\\_stadium](http://www.solarpowerportal.co.uk/news/bristol_city_council_completes_ppa_project_at_local_stadium)
- (21) Solar Power Portal 7<sup>th</sup> July 2016  
[http://www.solarpowerportal.co.uk/blogs/solar\\_ppas\\_and\\_the\\_public\\_sector\\_7834](http://www.solarpowerportal.co.uk/blogs/solar_ppas_and_the_public_sector_7834)
- (22) Solar Power Portal 24<sup>th</sup> June 2016  
[http://www.solarpowerportal.co.uk/news/portsmouth\\_city\\_council\\_to\\_spend\\_millions\\_on\\_rooftop\\_solar\\_roll\\_out](http://www.solarpowerportal.co.uk/news/portsmouth_city_council_to_spend_millions_on_rooftop_solar_roll_out)
- (23) Solar Power Portal 18<sup>th</sup> April 2017  
[http://www.solarpowerportal.co.uk/news/west\\_sussex\\_solar\\_scheme\\_to\\_save\\_millions\\_for\\_council\\_and\\_schools](http://www.solarpowerportal.co.uk/news/west_sussex_solar_scheme_to_save_millions_for_council_and_schools)
- (24) Solar Power Portal 31<sup>st</sup> March 2017  
[http://www.solarpowerportal.co.uk/news/solar\\_storage\\_homes\\_set\\_for\\_swansea\\_under\\_historic\\_investment\\_deal\\_for\\_wales](http://www.solarpowerportal.co.uk/news/solar_storage_homes_set_for_swansea_under_historic_investment_deal_for_wales)
- (25) Times 15<sup>th</sup> March 2017 <https://www.thetimes.co.uk/edition/business/isles-of-scilly-become-testbed-for-green-energy-mkxkhc3x6>
- (26) Solar Power Portal 3<sup>rd</sup> March 2017  
[http://www.solarpowerportal.co.uk/news/stirling\\_council\\_celebrates\\_1500th\\_solar\\_install\\_as\\_battery\\_storage\\_pilot\\_project](http://www.solarpowerportal.co.uk/news/stirling_council_celebrates_1500th_solar_install_as_battery_storage_pilot_project)
- (27) Solar Power Portal 10<sup>th</sup> Feb 2017  
[http://www.solarpowerportal.co.uk/news/seven\\_glasgow\\_primary\\_schools\\_to\\_go\\_solar\\_by\\_april\\_under\\_council\\_programme](http://www.solarpowerportal.co.uk/news/seven_glasgow_primary_schools_to_go_solar_by_april_under_council_programme)
- (28) Allmedia Scotland 6<sup>th</sup> Feb 2017 <http://www.allmediascotland.com/media-releases/121452/media-release-fife-based-living-solutions-takes-delivery-of-cutting-edge-hydrogen-electric-green-energy-vehicle/>
- (29) See <http://www.energisebarnsley.co.uk/projects/>
- (30) Energy Live News 1<sup>st</sup> Feb 2017 <http://www.energylivenews.com/2017/02/01/uk-trio-trials-home-battery-to-boost-network-capacity/> and Solar Power Portal 18<sup>th</sup> Jan 2017  
[http://www.solarpowerportal.co.uk/news/moixa\\_to\\_trial\\_40\\_batteries\\_with\\_energise\\_barnsley\\_for\\_northern\\_powergrid](http://www.solarpowerportal.co.uk/news/moixa_to_trial_40_batteries_with_energise_barnsley_for_northern_powergrid)
- (31) Energy Live News 7<sup>th</sup> Jan 2017 <http://www.energylivenews.com/2017/01/07/three-london-councils-trial-solar-battery-project/>
- (32) Scottish Housing News 17<sup>th</sup> March 2017 <http://www.scottishhousingnews.com/14468/ore-valley-wind-turbine-brings-green-energy-to-cardenden/>
- (33) Guardian 19<sup>th</sup> April 2017 <https://www.theguardian.com/society/2017/apr/19/scottish-wind-energy-project-builds-new-homes>
- (34) Guardian 7<sup>th</sup> September 2015 <https://www.theguardian.com/environment/2015/sep/07/robin-hood-energy-nottingham-council-launches-not-for-profit-energy-company>
- (35) See <https://www.robinhoodenergy.co.uk/>
- (36) See <https://www.whiteroseenergy.co.uk/>
- (37) APSE 13<sup>th</sup> October 2016 <http://www.apse.org.uk/apse/index.cfm/news/2016/apse-energy-partners-with-robin-hood-energy/>
- (38) See <https://bristol-energy.co.uk/>
- (39) Clean Energy News 22<sup>nd</sup> March 2017 <http://www.cleanenergynews.co.uk/news/efficiency/wirral-council-to-set-up-energy-supply-offer-for-homes-and-businesses>
- (40) Utility Week 20<sup>th</sup> Feb 2017 <http://utilityweek.co.uk/news/Leicestershire-councils-create-local-energy-scheme/1296102>
- (41) Rugby Advertiser 25<sup>th</sup> January 2017 <http://www.rugbyadvertiser.co.uk/news/solar-farm-plans-set-for-sites-in-rugby-1-7790738>