



Navitas – October '16

Energy Solutions Newsletter

Baroness Neville-Rolfe speech at Clean Energy Live, Birmingham

It's great to be here today in Birmingham.

Over the next few days, the NEC will be filled with talk about the smartest ways to use energy.

But the NEC isn't new to this.

It's won a sustainability award twice.

And it's using smart metering to save water and energy.

Conference centres are popular because they're malleable, one week it's the International Doll's House Show, the next a Recruitment Agency expo – culture and services representing two importance UK industries Yet, with all this change – there is a constant the NEC has which we all prize: foresight. It has seen the way forward – the only way forward – in terms of energy which is to be smart. That means conserving energy, it means measuring it and, crucially, it means storing energy.

Of course, I'm speaking to the converted. You represent some of the most forward-thinking energy organisations, people who have seen that the future of energy is a mix of suppliers, low carbon, and energy storage, where all the time technology is improving our understanding of how much energy we use.

We've seen success in storage across the world – from Hawaii to Hamburg – and it's obvious from today's turnout that the UK is exploiting its opportunities.

Like North Star Solar – offering integrated solar, storage and lighting systems to consumers at no upfront cost – and Hounslow installing storage alongside solar panels to cut their energy bills.



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This is promising, and something to be proud of, so thank you. I have been asked to speak about where the UK is heading through 2020.

The very obvious answer – and one that was discussed thoroughly throughout the party conferences – is that we are heading out of the EU.

But this shouldn't be alarming; the economic outlooks are constantly being revised and have been improving. I believe we've been given an important opportunity and if there is any test of a Government's foresight, it will not only be how we navigate through the forthcoming agreements, but how we continue to prosper as a country.

Although the UK is leaving, we remain one of the best countries in the world to do business with.

And – crucially – we remain one of the world leaders when it comes to tackling climate change. Throughout the agreement in Paris – which the PM referred to today in her speech – our negotiating team was one of the best and we helped bring diverse countries together into the agreement.

Our Climate Change Act and our Carbon Budgets will implement our share of action that the 194 other countries agreed to at Paris.

And as we prepare to ratify this year, our commitment to climate change has not wavered. You all have a role to play in this, too. Because climate change does not get solved by Parliamentary decisions alone, it gets solved by everyone playing their part.

I have been at Party Conference where I have emphasized that there is a place in the energy mix in the UK for solar because we need a diversity of energy supply.

Solar can be especially valuable for direct heating in households and businesses as well as energy – I worked at Tesco for 15 years before this job and we used solar on our department store roofs in California, Hungary and Thailand – and in our zero carbon store. And I can tell you it gets extremely hot up on those roofs. And while solar still needs subsidy, if we can reduce costs further as I know you are already trying to do – and if we can get to a place



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where electricity can be stored then solar is a technology and industry that can lead to step change.

Batteries, solar panels, wind turbines – all of these will help integrate new low carbon generation, whilst delivering secure, affordable and clean energy for customers.

These techniques allow us to save energy, store it for when we really need it and be more flexible in the sources it comes from.

My background as a business woman is in retail – working in Tesco for 15 years and as an executive on the Board for the last 6 years – and an important part of our strategy was to expand what the supermarket provided...

...so when I arrived people would leave Tesco with a bag of groceries ...

...but by the time I left, customers had the choice to do that shopping online, as well as sign up for a new phone contract, get insurance or buy fashionable clothes for their children.

So I know that to survive in the market, you need to adapt, to be constantly thinking of ways to improve your service.

So it's no surprise that the retail sector is redefining itself, with companies such as Sainsbury's and M&S installing solar panels on a large scale and supporting the decarbonisation of their businesses.

Recent policy changes have rightly made sure that support for solar remains in line with the falling cost of panels, but we continue to see new projects being presented, even at the heart of our manufacturing industries.

Take as an example Rolls Royce who, in their factory in Bristol, have instigated 'Project Sunshine', installing solar panels which will play an important part in their 50 per cent emissions reduction, as well as powering their facilities.

Meanwhile leading solar companies such as Lightsource are working hard to develop the subsidy-free solar models of the future.



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There are now over 840,000 UK homes with solar panels, contributing to the 2.2 per cent of UK generation provided by solar in 2015. Well-planned storage can be a solution to converting that low carbon electricity into secure-low carbon electricity; it can help those solar households maximise their energy use, giving them power over how they use that energy and taking demand away from the grid at times of low demand.

And up to 18GW of storage could – according to the National Grid's Future Energy Scenarios – be connected to our energy system by 2040.

So to exploit this further, we need your help: we need your expertise and investment and your innovation to bring forward the business models that will deliver this new smart energy system. It's important, too, that we look at how our international counterparts are exploiting storage to its fullest potential.

For example in Los Angeles, where a major gas leak is being mitigated by hundreds of megawatt-hours of storage...

...or in India where the Solar Energy Corporation will require storage alongside solar panels in new tenders to help manage power fluctuations.

This is where foresight comes in.

Recently, my colleague the Secretary of State for Business, Energy and Industrial Strategy – Greg Clark – outlined the principles of that strategy.

In his speech he made a point which I think will strike a chord today. He talked of how in our society, we have an upgrade culture: our phones, our computers, our industrial processes – all are subject to regular upgrades...

He talked about it being time for our country to have an upgrade, one that puts it in a good place to tackle future problems when they occur.

For me, it is crucial that the market and structures which support the new technologies I've been speaking about today are fit for purpose now and regularly upgraded in the future.



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To this end, we are actively supporting the UK storage industry through our innovation programme.

Over the last six years, the Government and other public bodies have committed more than £65m to energy storage research, development and demonstration.

Ofgem have provided more than £100m to the UK Distribution Network Operators who help test energy storage in conjunction with solar arrays.

And in the 2016 Budget, the Government committed at least £50m of funding to support innovation in demand-side response, storage and smart technologies.

We are focusing on developing our Smart Innovation programme to use this funding. We want to support technologies where there are clear market failures and programmes where intervention will have the greatest impact on meeting our climate change and energy objectives.

We will be seeking your views on the options in the months ahead.

We have seen some great success stories.

Moixa has developed their Maslow domestic battery system, assembled in Hastings, which provides grid support services delivering cost savings for consumers.

Connected Energy, who are here today, received funding for their Everest Project. It will demonstrate how recycled batteries from electric vehicles can provide storage solutions for the distribution grid; which we need, to help manage the output from renewables and support the rapid charging of electric vehicles.

And UK enterprise redT has recently supplied 40kWh flow battery systems to E.ON who I met this morning and other UK and international customers.

I believe these technologies must be encouraged and supported, so that more of us can benefit from disruptive changes. That is why we will shortly publish a call for evidence on a smart systems routemap, including sections on storage and innovation.



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We will need your help in choosing the solutions that work best for the industry and for consumers and communities.

The theme of this session is 'Changes and Opportunities'.

Every change is an opportunity. Brexit will be a significant change, but we have an opportunity in the new relationships we make in a different world...

...climate change is a change but we have an opportunity to build new industries that cut carbon and use energy in a smarter way and to invest in innovative, sustainable energy projects like storage.

But every opportunity doesn't necessarily mean change.

By making energy storage more commonplace means stability – we can keep power in our towns and cities flowing when other sources are under pressure, and we can provide cheaper electricity for business making our economy stronger. Ladies and gentlemen, we have seen what can be achieved when Government and business work together in collaboration. I want this to continue.

Our joint vision should be a smart energy system in the UK, indeed one that could be the envy of the world.

Thank you for listening.



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New 'central heating for cities' to help reduce energy bills

The first part of a £320m fund will upgrade heating in towns and cities to supply Low Carbon and recycled heat.

Dubbed 'central heating for cities', heat networks also have the potential to reduce heating costs, in some cases by more than 30%. The networks will mean cities can recycle the wasted heat they produce from places like factories, power stations and even the London Underground and pump it into homes and businesses to keep them warm.

Minister of State for Energy, Baroness Neville-Rolfe said:

Heat networks can significantly improve the efficiency with which heat is provided to our towns and cities, as well as helping to develop local infrastructure and reduce carbon.

The new scheme will help us to develop viable reforms to make the most of the heat we produce and use it effectively to bring bills down for people across the country.

Heat networks have already been used successfully in the UK, and are popular across Scandinavian cities for keeping homes warm in winter. The money will be invested over the next five years to build low carbon heating systems across England and Wales.

Heat networks can also draw their energy from sources such as Combined Heat and Power plants, biomass boilers, or from heat from deep below the earth's crust.

The £320m scheme will run over five years and further instalments of funding will be released in due course.



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NOTES

- This initial part of the funding, worth up to £39m, will be open to local authorities and public sector bodies who will submit applications for their projects by the end of November to gain funding. The total value of the fund over five years is £320m and in future years this will be opened up to a wider set of applicants. [More information about applying for the scheme.](#)
- The estimated 30% reduction in heating costs is sourced from [AECOM \(2015\) Assessment of the Costs, Performance, and Characteristics of UK Heat Networks.](#) It compares estimated heat price for a small flat (10.24p/kWh) with average heat price from heat networks studied (6.43p/kWh) – pp. 35-36.



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£4 million boost to help businesses switch vans and trucks to electric

- electric trucks above 3.5 tonnes eligible for grants of up to £20,000
- scheme will help improve air quality in towns and cities
- move to electric vehicles crucial for decarbonising the transport system

Businesses will now benefit from grants up to £20,000 when switching their large trucks to electric vehicles, Business and Energy Secretary Greg Clark announced during a 3 day visit to Japan where he is meeting Japanese automotive companies.

The Plug-In Van grant has been available to small commercial vehicles of up to 3.5 tonnes since 2012, but sales of new electric vans have remained limited.

Electric vans and trucks have significant air quality benefits, as they spend much of their time in towns and city centres and over 96% of them are diesel-powered.

The government is now committing an additional £4 million to the scheme so that all vans and trucks meeting the necessary requirements are eligible as part of the drive to reduce carbon emissions from transport use.

Business and Energy Secretary Greg Clark said:

The electric car revolution is well underway with consumers and this funding will encourage more businesses to consider switching to cleaner vans and trucks.

Our automotive sector is thriving with the world's most popular electric car already made in the UK and we are forging ahead to deploy new engine technology to make low-carbon vehicles mainstream, and leading the way in driverless car technology.

The government and industry continue to work together to support the UK's world class automotive industry to ensure we continue to be the number one place in the world to develop and manufacture cars.



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The Office for Low Emission Vehicles (OLEV), a joint unit of the Department for Business, Energy and Industrial Strategy and the Department for Transport, believes extending the scheme will stimulate demand for more electric vans and trucks, and consequently encourage new entrants into the electric van market.

The government and industry continue to work together to support the UK's world class automotive industry, including on the Advanced Propulsion Centre, which has invested £1 billion to develop low carbon technologies. We have also invested £100 million in connected and autonomous vehicles, and through the Office for Low Emission Vehicles we are also helping work up the most constructive programme to support the adoption of electric vehicles.

It is the second visit the Business Secretary has made to Japan since his appointment in July 2016, highlighting the personal importance he attaches to this particular relationship. Japan is the second biggest investor in the UK and their track record of co-operation in the development of new technologies and business models is second to none. In addition to visiting Nissan, the Business Secretary also met with Honda and Toyota executives.

NOTES:

1. The extension of the Plug-In Van grant will mean N2vans (3.5 – 12 tonnes gross weight) and N3 vans (over 12 tonnes gross weight) are now eligible.
2. The proportion of vans in the domestic transport fleet is increasing: new van sales are up 66% between 2010 and 2015, compared with a 30% increase in cars over the same period.
3. The scheme will be reviewed once 5,000 grants have been processed, or in March 2018, whichever is earlier.
4. The grant amount is automatically deducted from the price of the vehicle by the dealer when it is purchased, and the dealership also completes all the necessary paperwork.
5. The Office for Low Emission Vehicles (OLEV) is a team working across government to support the early market for ultra-low emission vehicles (ULEV). It is providing over £600 million to position the UK at the global forefront of ULEV development, manufacture and use.



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E.ON announces 100 new apprenticeships

E.ON has announced that it is taking on 100 new apprentices over the next 12 months as it continues to roll out its award winning apprenticeship programme.

The energy company will be creating 100 new apprenticeships which will be based on a scheme that launched in [2014](#) and last year won the award for Youth Engagement Initiative of the Year at the National Skills Academy for Power Annual Awards. The apprenticeship programme has also received [Platinum Provider Status](#).

E.ON's apprenticeship programme was initially aimed at 16-24 year olds not in education, employment or training. E.ON has now broadened the criteria to include applicants of all age ranges and backgrounds, helping to support more people into real job opportunities as well as contributing to the industry's ongoing drive to develop the skilled workforce needed within the sector.

The initial apprenticeship programme was so successful that E.ON has also extended the recruitment and training model beyond customer operations to field operations and support functions, such as smart metering, IT, HR and highways lighting. E.ON will be recruiting the 100 new apprentices to support its residential customer operations teams at its main sites in Bedford, Bolton, Coventry and Nottingham.

Since its launch in 2014, 136 young people have benefitted from the programme, with 87 apprentices securing full-time work with E.ON or other organisations. E.ON currently has 107 apprentices in full-time employment.

Dave Newborough, UK HR Director at E.ON, said: "We're always looking for a diverse range of candidates to join our business and it's vital that we provide real career opportunities for those that show potential. Continually developing our recruitment and training strategy is essential if we are to achieve these goals.

"We've made great progress since launching our new apprenticeship programme in 2014, and after just two years we have already started to benefit from the hard work and enthusiasm that these apprentices have brought to the business.



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“We understand that the apprenticeship landscape is changing and I hope we can continue to increase the number of roles we’re offering, as well as challenge ourselves to create new, innovative recruitment pathways and training schemes to attract new talent into the sector.”

For more information on E.ON’s apprenticeship programmes please visit <http://eon.li/r1kio>