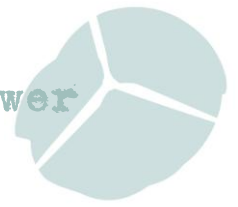


No.91 January 2017

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# 1. Looking backwards to see what 2017 might bring

We are entering 2017 with many people extremely worried that Trump, Putin, and ExxonMobil have teamed up to destroy the planet. Their aligned interests represent a grave threat to humanity (and democracy). Trump's Secretary of State choice, Rex Tillerson, CEO of oil giant ExxonMobil, had made a \$500 billion oil deal with Putin but it was blocked by sanctions. If Tillerson manages to persuade the Trump administration to lift sanctions it would pay off big time for Exxon, but could be very bad indeed for the planet. (1) Trump is also reported to be looking for ways the U.S. government can stop nuclear power generators being forced out of the electricity market by cheaper natural gas and renewable resources. (2)

Trump won't care about the impact of nuclear power on climate change one way or the other. But we do know that if the UK and signatories to the Paris Agreement on climate change attempt to boost nuclear power as a hedge against increasing emissions from America and Russia it will have the opposite effect, and make the situation worse. We need to spend our scarce resources on less expensive abatement measures and get *'more bang for our buck'*. (3)

## Nuclear up from 16GW to 18GW plus SMRs

Equally depressing was the apparent upbeat mood and sense of excitement at the Nuclear Industry Association's recent annual conference. The government's approval of Hinkley Point C in September had certainly injected a new belief and new momentum into industry delegates. (4) Added to this was Energy Minister Baroness Lucy Neville-Rolfe earlier speech to the Office for Nuclear Regulation (ONR) Industry Conference in Cumbria when she talked of a *"nuclear renaissance - going further [than just Hinkley] with proposals to develop 18GW of nuclear power across six sites in the UK."*

She also talked about exciting developments concerning Small Modular Reactors (SMRs) which *"might allow us to bring down the costs of meeting our energy and climate change targets."* She said the Government has *"received an encouraging response from industry with over thirty eligible Expressions of Interest"*. The Government has been hosting a regulatory workshop with competition participants and colleagues from the Environment Agency and ONR. (5)

It is unclear why SMRs should have Government support says Philip Johnstone, Benjamin K. Sovacool, Gordon MacKerron, and Andy Stirling at Sussex University. There is no commercially operating SMR anywhere in the world. The cost is unknown and public acceptability untested. Pouring resources into "innovative" nuclear technology could be a damaging distraction. We must give balanced consideration to a full range of low carbon alternatives rather than focus uncritically on nuclear energy. (6)

## Positive Forces

But there are some strong positive forces at work as well which make it hard not to think that in trying to build the nuclear industry up the Government is building up something which has



already gone flat – like pumping up a balloon – and at some point in the not too distant future it is just going to burst.

In California, Pacific Gas & Electric (PGE) has decided to close its Diablo Canyon Nuclear Power Plant because baseload power doesn't fit into the dynamic grid California is developing. Many consider California a trailblazer on energy and climate issues, so these comments will resonate in the ongoing debate over nuclear's role in a clean-energy future. PGE said that Diablo was “*not going to be a good fit for the future needs of the system*”. Nuclear advocates argue that nuclear plants can provide reliable power to balance the variability of renewables, but baseload power turned out to be Diablo's Achilles' heel. “*With 50 percent renewables on the system, the idea of a large baseload generator that runs pretty much all the time, every day, 24 hours a day, just doesn't have as good a fit to the market conditions we expect to see,*” said Steve Malnight, PG&E's senior vice president for regulatory affairs. Diablo Canyon will be replaced with a suite of greenhouse-gas-free technologies, including renewables, energy efficiency, and energy storage. (7)

These same forces at work in California are not just American – they are global. Just because the UK Government has been ending subsidies to renewables and promoting nuclear power instead might delay the energy revolution a little but it doesn't mean we are completely immune from these strong forces at work.

## Moorside

Unfortunately for nuclear supporters utilities in the UK are, like PGE, beginning to realise that the old utility model is dying. Engie, formerly GDF Suez, which owns 40% of NuGen, the Company which wants to build three new nuclear reactors at Moorside in Cumbria, next to Sellafield, is fully aware that “*the future is going to be much more about decentralized energy*”. The company is roughly one third owned by the French Government, and is the parent company of the Belgian utility, Electrabel, which operates all seven of Belgium's nuclear reactors. But it is now trying to abandon its new reactor projects in Turkey and England because it no longer has the resources to finance such expensive projects. (8)

The Chief Executive of Engie UK, Wilfrid Petrie, says “*It's very difficult today to build a new power plant [in the UK] with current market conditions*”. Instead, the Company offers localised services that could include installing insulation, district heating and solar panels on existing buildings as well as supplying gas and electricity. “*We see the emergence of a new type of organisation within cities,*” he says. Engie, he believes, can build on its relationships with councils and other commercial customers to expand its British business by developing local, decentralised energy in urban areas, where demand is high. “*We don't want to sell a huge amount of energy. Our big focus is on the demand side. The future is going to be much more about decentralized energy,*” he says. (9)

If Engie does pull out of the NuGen consortium it will make it even harder to finance the construction of three new reactors at Moorside. NuGen has already told the House of Lords Economic Affairs Committee that it is hoping that certain non-nuclear elements of the project might be paid for by the UK Government. Despite casting its net far and wide in an attempt to drum up the required finance the consortium is clearly struggling to attract support. Hoping that the taxpayer will rescue the project, NuGen's CEO Tom Samson told the House of Lords that one non-nuclear element of the project has been identified by the consortium as the seawater



system required to cool Moorside's reactors. Samson hopes that major 'civil works' such as the removal of excavation spoil, could also qualify for Government largesse. There's also a suggestion there might be Government assistance to improve the transport infrastructure of Cumbria. The very notion that the Treasury should ride to the rescue when hospital and community services in West Cumbria are being increasingly starved of Government support is not going down too well in some quarters. (10)

### Storage – the missing link

Bloomberg New Energy Finance (BNEF) predicts a six-fold increase in investment in energy storage to \$8.2bn (£6.7bn) by 2024, and to \$250bn (£197bn) by 2040. This massive growth in energy storage will create a "*fundamentally different*" global power system. This energy storage 'megashift' is already beginning to gather pace. The battery market has seen breath-taking levels of growth from utilities over the past 12 months, while non-utilities are increasingly realising that lithium-ion or flow storage systems can act as the perfect accompaniment to on-site renewable energy installation. (11)

Paul Massara, former CEO of RWE nPower, is now CEO of North Star Solar, a new solar PV + battery home energy system start-up. He says that lithium ion batteries for electrical storage are getting cheaper and cheaper, and PV + battery packages are now cost effective in the UK with the right financing package. Cheap, ubiquitous electrical energy storage will lead to a very different world and may change the focus of many of today's energy policy debates. It is likely to help reduce peak demand, and allow renewables to provide a much higher percentage of electricity demand, especially if they are cheaper than alternative forms of low carbon electricity such as nuclear or fossil fuel with carbon capture and storage. (12)

North Star Solar has set up a joint scheme with the former colliery town of Stanley in Co Durham to offer in-home batteries and solar panels for free to all the town's 35,000 households. Paul Massara says the combination of rooftop panels, a lithium battery and energy-efficient LED light bulbs will immediately cut power bills by 20%. (13)

The £19m 'Big Battery' installed at a sub-station in Leighton Buzzard, Bedfordshire has completed a two-year trial and successfully shown that power storage has the potential to be both technically and commercially viable. (14)

Camden Council has teamed up with Islington and Waltham Forest Councils to deliver a pilot programme to test the potential benefits of solar panels and energy storage systems for residents at risk of fuel poverty. The '24/7 Solar' initiative is being part-funded by national fuel poverty charity National Energy Action. The aim of the trial is to see if there is evidence that integrated solar and storage technologies can effectively reduce the energy bills of fuel poor households. (15) Meanwhile in Edinburgh and surrounding towns several housing associations have been working with Sunamp to install solar PV and heat storage 'batteries'. Surplus solar generated electricity can be diverted to the heat battery and used for hot water or central heating when required later. (16) And in Orkney where renewable energy generators are often curtailed due to the constraints on the distribution of electricity around the Orkney grid, yet fuel poverty levels are at 63%, a new project, launched by Heat Smart Orkney Ltd, is aiming to divert unused renewable energy into affordable heat. (17) The Scottish Government has given a new 400-MW pumped-storage hydro power plant in Dumfriesshire permission to go ahead. (18)



Solar power is expected to be the cheapest form of energy (not just electricity) everywhere in the world by around 2030. Cheap solar panels and advances in storage technology are transforming the world. By 2030 or 2040 solar will be the cheapest way to generate electricity, indeed any form of energy EVERYWHERE. The proportion of global electricity provided by solar is likely to grow from 2% now to at least 50% by 2030. We can see the cost of batteries coming down in price dramatically, but turning surplus solar electricity generating during the summer into something we can put into natural gas networks will probably come soon. Generating hydrogen from water and, using microbes, combining it with carbon dioxide to form methane is the simplest way to do this. (19)

Even offshore wind costs are falling. Swedish utility Vattenfall has agreed to build a giant offshore wind farm in Denmark that would sell power for €49.50 per MWh. Vattenfall has broken its own previous record of €60 per MWh. Once the cost of transmission is included this works out at around £75.50/MWh compared with £100.50/MWh for Hinkley Point C (once inflation has been added to the £92.50 at 2012 prices). (20)

## Wylfa Newydd

*“The Government knows that solar and wind will be cheaper by the time Hinkley is generating”* says Stop Hinkley spokesperson Roy Pumfrey. *“It is blindingly obvious that solar and wind will win through in the end.”* (21)

If the French nuclear industry managed to somehow get through its current difficulties (see below) EDF and China’s state-backed CGN can always appeal to their respective governments to help fund delivery of Hinkley Point C if things go pear-shaped, but Horizon, which is proposing to build two Advanced Boiling Water Reactors at Wylfa on Anglesey and two at Oldbury in Gloucestershire doesn’t have that luxury. Instead it will need to raise much more of its capital funding through attracting private investors – and proving to them it’s a safe bet. Horizon’s CEO Duncan Hawthorne admits this will be a challenge. *“Quite honestly, we can’t point to a large parade of successful (nuclear) projects ... We have to have a credible story in order to get financial support for the build costs”*. He has got to somehow show that it is possible to construct a plant that will guarantee to investors it can be built on time and budget – and be commercially viable. (22) Given that there were only four ABWRs operating anywhere in the world before Fukushima with an average load factor of only 45%, and all have been closed since 2011, this might be a tall order for Hawthorne. (23)

The Japanese government and Hitachi are reported to be putting together a package worth £6.79bn to finance the Wylfa. The total cost of the project is expected to be around £19bn. There has been talk, according to the Nikkei Asian Review of the UK Government shouldering 25% of the cost. Even if that were the case that still leaves £11.5bn to be found from somewhere. (24)

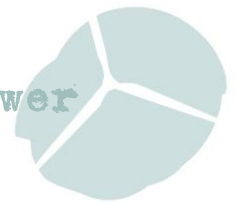
While Wales and the global climate waits for Horizon to prove something that might well be impossible to prove the local economy on Anglesey has been *“allowed to stagnate over decades due to a promise that nuclear power would come and save the day”*. Robat Idris from People Against Wylfa B says residents are concerned about nuclear waste from the proposed Wylfa Newydd power plant and were not convinced that any new jobs would be for local people. He says focusing efforts on bringing renewable and community energy schemes to Anglesey would offer more long-term benefits. (25)



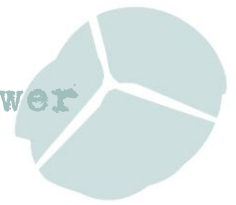
## Hinkley Point C

Back at the Nuclear Industry Association's annual conference EDF's Humphrey Cadoux-Hudson tries to keep the delusion going telling delegates that "1,000 workers [are] currently on site" and "first nuclear concrete expected in Q1 2017" In fact the first pour of concrete (for the reactors) will not start until 2019. At the moment a temporary jetty is being built but it will take about a year to complete and construction of workers' accommodation may start in 2017. In the meantime about a 100 HGV lorry movements a day are carrying, spoil, limestone, rebar, metal shearing aggregate and plate material. 40 buses a day carry shift workers between Bridgwater and the site, but ironically these buses can't be used by local residents who have had their local services scrapped. So there will be two more years of falling renewable costs and rising nuclear costs before construction at Hinkley can get underway in earnest. And two more years of revelations about the mess that EDF and Areva have gotten themselves into.

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## 2. Onshore wind – a bigger threat than Putin?

A Centrica gas deal with Russia's Gazprom in May 2015 saw a 2.3 bcm (billion cubic metres) per year (1) increase in UK gas imports from Putin's Russia taking the total to 7.3 bcm per year (Centrica has a 2011 deal for 5 bcm per year for 10 years), (2) writes Neil Crumpton PAWB's rep on the BEIS-NGO nuclear Forum

The additional 2.3 bcm per year deal signed during the Ukraine crisis and increasing Russian muscle-flexing ('aggression' was Theresa May's word used recently) has a thermal energy of 25.3 TWh per year. This amount of natural gas could generate about 14 TWh/y of electricity in an efficient CCGT (at around 55% efficiency). This amount of electricity could have been generated by the end of 2016 by say a 5 GW of mainly onshore windfarms and a 3 GWp deployment of PV (generating about 11 TWh and 3 TWh respectively) if DECC had not carried out the renewable energy support cuts last year. That's assuming the rate of onshore and offshore wind deployment in mid 2015 had continued until the end of 2016.

In 2006 Prof Ian Fells and the Blair Government were highlighting concerns about increasing dependence-risk on Russian gas by 2020 and proposing that new nuclear reactors should be built from 2017 onwards to avoid such dependency.

So we have to presume that the Cameron and May Governments see UK renewables as more of a threat than increasing gas dependency on Putin's Russia. Thousands of UK jobs have been lost in renewable deployment in the UK while gas profits in Russia increase thus facilitating Putin's war efforts.

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1. 1 Bcm = 11 TWh thermal energy  
<http://webarchive.nationalarchives.gov.uk/20101227132010/http://www.pilottaskforce.co.uk/files/workgroup/1967.pdf>
  2. <https://www.centrica.com/news/centrica-extends-gas-supply-contracts>. Note the Centrica deal has a reliable delivery clause within it though possibly not useful to bring pressure to bear on Russia? However, because Centrica has struck its agreement with Gazprom's UK subsidiary, which can source supplies from outside Russia if need be, it is expected to be less vulnerable to problems relating to Russia :<http://www.independent.co.uk/news/business/news/gas-imports-from-russias-gazprom-giant-to-soar-after-new-centrica-deal-10248692.html>





### 3. French Nuclear Industry in Chaos

On 14<sup>th</sup> December some thirty Greenpeace activists blocked the EDF headquarters in Paris to denounce the financial scandal and technical bankruptcy of the Company. They hung a banner on the front of the HQ building which declared that EDF has a debt of 74 billion euros, but because of nuclear power, this figure will rise even higher. (1)

As we reported last month Greenpeace commissioned an audit by AlphaValue, the equity research company. The report indicated that EDF grossly underestimates the cost of nuclear electricity. If it disclosed the true cost of running its fleet of reactors in France while financing two new ones in the UK, it would be declared bankrupt. (2) (3)

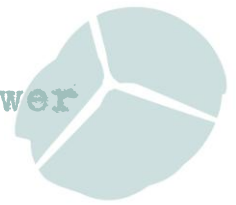
France is set to have its usual nuclear power capacity almost completely restored by mid-January, after a number of plants come back online following inspections. Only 4 out of 58 nuclear power plants will be offline by the middle of January, so worries about shortages have eased. EDF has confirmed that seven nuclear reactors shut down for safety checks would be up and running again by the end of December and there should be no problem with power supplies this winter.

Grid operator RTE said that three of the seven reactors offline - Gravelines 2, Dampierre 3 and Tricastin 3 - would resume production from December 20<sup>th</sup> and that four more would restart before December 31<sup>st</sup>. The seven reactors are among 12 that have been slated for inspections under orders from the nuclear regulator ASN following the discovery of high carbon concentrations, which could weaken their steel. (4)

EDF has asked ASN if it can postpone the outage of the 1.5-GW Civaux-1 and the 900-MW Tricastin-2 reactors to March and February respectively. The Civaux-1 and Tricastin-2 reactors are currently both due to go offline December 23 and return on January 15. (5)

While this particular crisis may appear to have an end in sight, the French industry's problems are now moving overseas. Manufacturing problems and forged paperwork as identified at Le Creusot are rare in the nuclear industry, where strict adherence to production and operating rules are supposed to be a crucial buffer against nuclear accidents. Independent nuclear energy consultant Mycle Schneider says "*Having worked for over 30 years in France, I did not think this was possible for this country, [but it is] likely we have seen only the tip of the iceberg.*"

Inspectors from the U.S. China and four other countries are investigating the decades-long cover up of the manufacturing problems at Le Creusot to see whether flaws represent a safety threat to their reactors. After investigators discovered files suggesting Le Creusot employees had concealed for decades manufacturing problems involving hundreds of components sold to customers around the world, the French regulator, ASN, ordered Areva to check 6,000 manufacturing files by hand, covering every nuclear part made at Le Creusot since the 1960s. Finnish inspectors visiting Le Creusot said they learned of potential flaws in a component slated for the reactor at Olkiluoto. In the U.S., the NRC has identified at least nine nuclear plants that use large components from Le Creusot.



*“I’m concerned that there keep being more and more problems unveiled,”* said Kerri Kavanagh, who leads the U.S. Nuclear Regulatory Commission’s unit inspecting Le Creusot. Regulators are considering returning to Le Creusot or inspecting Areva’s Lynchburg, Va., offices to deepen their probe of the plant, a U.S. official said. (6)

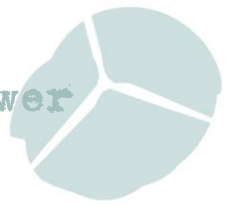
An investigation has now been opened by the Paris prosecutors’ office into whether Le Creusot’s activities were fraudulent and dangerous. So the company that designed Hinkley Point C is facing a criminal investigation on suspicion of aggravated fraud, forgery and endangering life. Le Creusot had already made one key component for Hinkley but this was scrapped amid safety fears and a replacement was ordered from Japan. (7)

## Meanwhile in Japan

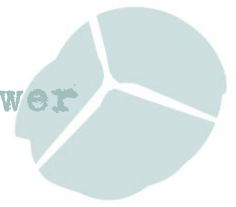
Major components installed in all Japanese nuclear power reactors are at risk of catastrophic failure, due to potentially flawed manufacturing and quality controls exercises at the forging stages, a technical assessment commissioned by Greenpeace Japan has concluded. Documents supplied to the Japanese nuclear regulator, (the NRA) by the Japan Casting and Forging Company (JCFC), Japan Steel Works (JSW) and JFE Holdings all show the potential for excess carbon in their large steel forged components, so called positive macrosegregation, according to the report by nuclear engineering consultancy Large&Associates of London.

*“The scale of this crisis is almost beyond comprehension. Japanese critical components which are not permitted to fail have been supplied to nearly one-quarter of the 58 nuclear reactors in France and have been found to violate regulations. They are at the heart of this unprecedented crisis. There remains no credible explanation as to how such components passed through the checks that should have seen them rejected. In contrast to the physical inspections ordered on 18 reactors in France, no checks have been conducted on the three reactors operating in Japan. By not ordering urgent physical checks on these reactors, as well as those under restart review, the NRA has demonstrated a complacency verging on incompetence that is reminiscent of its discredited and disbanded predecessor, NISA. This is a nightmare for the nuclear industry in Japan and the regulator - they don’t want to look because they are afraid of what they will find. They are right to be – but ignoring it will solve nothing,”* said Shaun Burnie, senior nuclear specialist at Greenpeace. (8)

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## 4. Generic Design Assessments

UK regulators expect to complete the Generic Design Assessment (GDA) process for Hitachi-GE's UK Advanced Boiling Water Reactor (UK ABWR) as scheduled, in December 2017, but doubt the GDA for the Westinghouse AP1000 will be done by March as previously stated. In its quarterly GDA report for May to October 2016, the Office for Nuclear Regulation (ONR) also says it has met "a number of times" in the period with General Nuclear Systems - a joint venture between CGN and EDF - as the potential GDA Requesting Party (RP) for China General Nuclear's HPR1000 design.

On the AP1000, ONR said: *"Our delivery confidence for this project is amber/red, which means that successful delivery of the project is in doubt with major risks or issues apparent in a number of key areas. We acknowledge that Westinghouse has made progress since the start of the year and its commitment is welcome; however there are only five months remaining and a very large amount of assessment to complete with issues still emerging. We will undertake a project deep dive at the end of this year, when we expect to have a clear view on the viability of completion and closure at the end of March 2017."* (1)

There are concerns about the volume of work still to be assessed in the remaining time, it added. *"Westinghouse has submitted first revisions of documents in all areas and multiple revisions in some areas. However, there are technical issues arising from our assessments and in some areas, the compression of the schedule is a significant challenge to us."*

### ABWR

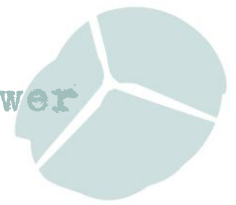
The Environment Agency and Natural Resources Wales (NRW) have launched a consultation on their environmental assessment of Hitachi-GE Nuclear Energy Ltd's UK Advanced Boiling Water Reactor (UK ABWR) nuclear power station design. The consultation runs until 3<sup>rd</sup> March 2017. (2)

The consultation is about safety, security, environmental protection and waste management. NRW says *"Our purpose is to ensure that the natural resources of Wales are sustainably maintained, enhanced and used."* But the public will have no influence on the technology used or the location. (3) *"This consultation sets out our findings so far and identifies where we require further work to be carried out by Hitachi-GE. After consultation we'll carefully consider all the consultation responses we receive, complete our detailed assessment and make our decision about the acceptability of the UK ABWR design."* (4)

A consultation workshop is being held in Birmingham on 24<sup>th</sup> January and there will be events near Wylfa and Oldbury, but no travel expenses are being offered to NGO representatives.

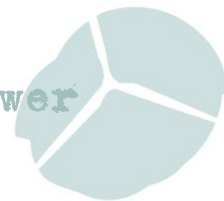
### EPRs

Although all 31 GDA Issues had been settled for the EPR between the interim Design Acceptance Confirmations (iDACs) and interim Statements of Design Acceptability (iSoDAs) and the issuance of the DAC and SODA on 13th December 2012, there were a total of 240 so-called "Assessment Findings" made. This large number of unresolved issues strongly suggests that the



EPR design is presently incomplete and, indeed, may have stepped back in several respects since the GDA commenced because of, for example, the difficulties experienced at the Olkiluoto and Flamanville EPR construction sites, together with more stringent safety demands following Fukushima. There does not seem to be any further mention of these on the ONR website. (5)

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1. World Nuclear News 28th Nov 2016 <http://www.world-nuclear-news.org/RS-UK-regulators-may-move-GDA-target-date-for-AP1000-28111601.html>
  2. Environment Agency 12<sup>th</sup> Dec 2016 <https://www.gov.uk/government/consultations/gda-of-hitachi-ge-nuclear-energy-ltds-uk-advanced-boiling-water-reactor>
  3. BBC 12<sup>th</sup> Dec 2016 <http://www.bbc.co.uk/news/uk-wales-north-west-wales-38289939>
  4. Energy Live News 12th Dec 2016 <http://www.energylivenews.com/2016/12/12/consultation-on-new-nuclear-power-station-design/>
  5. Large & Associates, Final Report on the ONR Generic Design Assessment, June 2013 <http://www.largeassociates.com/LA%20reports%20&%20papers/3206%20GDA/R3206-I3-06-06-13.pdf>



## 5. Bradwell Notes

Maldon District and Essex County Council are paving the way for Bradwell's Chinese-built nuclear plant by offering free Mandarin lessons to councillors. Professor Andy Blowers, chairman of the Blackwater Against New Nuclear Group (BANNG), said *"it may be that neither council possesses expertise in understanding what is proposed. And learning Mandarin will not compensate for that."* (1)

BANNG has been opposing new nuclear development at Bradwell for the last 8 years, on the grounds that the low-lying site is totally unsuitable for such development and, now, also because of concerns, shared with others, regarding security issues and Chinese involvement in such sensitive UK infrastructure. Professor Andy Blowers said: *"There is a long process ahead before any new nuclear power station can be built at Bradwell. The rigorous Generic Design Assessment has not yet commenced and then there will be a planning process in which Maldon District and Essex County Councils will be consultees. By celebrating in any way, the County Council potentially compromises its disinterested role as a consulted planning authority. The suggestion that there is something to celebrate could give the impression that a new Chinese power station will simply be waved through"*. (2)

Meanwhile the NDA's policy of spreading nuclear waste around the country to save money continues. Essex County Council has voted to lift restrictions imposed only 4 years ago and to allow Magnox, operators of the Bradwell site, to transfer Intermediate-Level Waste (ILW) from Dungeness and Sizewell to the Bradwell Interim Storage Facility (ISF). The restriction had decreed that only Bradwell-generated waste could be stored there. Bradwell will now become a regional nuclear waste store for the indefinite future and a precedent for the import of further wastes may have been set. The planning approval means that the long-held principle of self-sufficiency, whereby each site hosts its own wastes, is contravened. (3)

In a surprise move EDF and Chinese nuclear company CGN have consulted Mersea Island residents over the proposed new nuclear power station at Bradwell. The previous official position was that Mersea Island was in the wrong planning area (despite being much closer to and directly downwind from the site). If people want to share their views on the project they can do so via the website: [www.bradwellb.co.uk](http://www.bradwellb.co.uk) (4)

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1. Braintree & Witham Times 25<sup>th</sup> Nov 2016  
[http://www.braintreeandwithamtimes.co.uk/news/north\\_essex\\_news/14925295.Chinese\\_Learn\\_\\_Councillors\\_to\\_be\\_offered\\_Mandarin\\_lessons\\_ahead\\_of\\_new\\_Bradwell\\_power\\_station/](http://www.braintreeandwithamtimes.co.uk/news/north_essex_news/14925295.Chinese_Learn__Councillors_to_be_offered_Mandarin_lessons_ahead_of_new_Bradwell_power_station/)
  2. BANNG 30<sup>th</sup> Nov 2016 <http://www.banng.info/uncategorized/parlez-vous-mandarin/>
  3. BANNG 30<sup>th</sup> Nov 2016 <http://www.banng.info/uncategorized/column-for-estuary-life-oct-2016-bradwell-to-become-a-regional-nuclear-waste-store-courtesy-of-essex-county-council/>
  4. Mersea Island Courier 10<sup>th</sup> Dec 2016 <https://www.facebook.com/TheMerseaIslandCourier/>

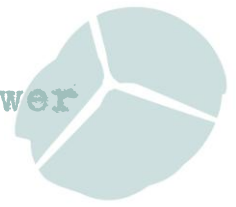


## 6. Sizewell C

EDF Energy has launched its stage2 public consultation on the proposals for two EPRs to be built at Sizewell. The consultation is open until 3 February 2017. (1)

Community leaders who met to discuss the proposals agreed that the developers need to offer a better deal for Suffolk. Nearly 80 town and parish representatives along with members of the Joint Local Authority Group (JLAG) concluded that EDF Energy's stage two consultation for Sizewell C has failed to make enough progress from its proposals four years ago. The key concerns raised at the summit focussed on the proposed accommodation campus, whose location near Therberton is feared to lack the required infrastructure to transport up to 2,400 workers to and from the construction site. Other issues included EDF's alleged failure to "*fully understand the communities of east Suffolk*" and their concerns. The summit also heard that EDF's proposals to have 35 metre high "*spoil heaps*" would have a significant impact on those living and visiting the area and it was not yet clear what mitigation would be provided. Transport routes for construction material were also said to be unclear, with EDF urged to provide more detail about how much would be brought in by road, sea and rail. (2)

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5. Sizewell C Consultation website: <http://sizewell.edfenergyconsultation.info/szc-proposals/stage-2/>
  6. Ipswich Star 8<sup>th</sup> Dec 2016  
[http://www.ipswichstar.co.uk/news/sizewell\\_c\\_needs\\_to\\_provide\\_a\\_better\\_deal\\_for\\_suffolk\\_1\\_4808659](http://www.ipswichstar.co.uk/news/sizewell_c_needs_to_provide_a_better_deal_for_suffolk_1_4808659)



## 7. Managing Radioactive Waste

The Government has issued the sixth annual report explaining the background to the Geological Disposal Programme covering progress between April 2015 and March 2016. This report covers progress with delivery of the initial actions set out in the Implementing Geological Disposal White Paper (2014) and Radioactive Waste Management's preparations for siting.

A draft National Policy Statement NPS will be issued for public consultation in early 2017. It will also be laid in Parliament and be subject to scrutiny by the relevant House of Commons select committee, which will produce a report and recommendations based on outputs from the public consultation and evidence sessions, and there may be Parliamentary debate in either or both Houses of Parliament on the NPS if the select committee makes a recommendation to this effect.

There will also be a consultation on policy proposals following the input of the Community Representation Working Group, and the evidence base, including a literature review, case studies and public dialogue workshops.

Formal discussions to start to identify potential sites will begin once the outputs from the initial work have been completed. This will ensure that any community wanting to engage with the process at that point can do so with more information and greater clarity about the nature of a GDF development. (1)

Meanwhile the Cumbria Trust has highlighted the fact that the next search process for a Geological Disposal Facility GDF has extended the available offshore strip from 5 to 20km. It asks whether an onshore GDF is now seen as undeliverable anywhere in the UK? (2)

Just as we go to press the Scottish Government has issued its Higher Activity Waste Implementation Strategy here <http://www.gov.scot/Publications/2016/12/9017>

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1. BEIS 8<sup>th</sup> Dec 2016 <https://www.gov.uk/government/publications/implementing-geological-disposal-annual-report-april-2015-march-2016>
  2. Cumbria Trust 27<sup>th</sup> Nov 2016 <https://cumbriatrust.wordpress.com/2016/11/27/offshore-teesside-a-potential-gdf/>