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1. Subsidy blackmail continues

EDF's chief executive, Henri Proglio, says "*I won't qualify myself as confident*" about reaching an agreement with the Government on a strike price for Hinkley Point C, "*but rather conscious that an agreement can be reached*". He said the company would walk away from its plans for new UK reactors if the government does not deliver an adequate guaranteed price for the power generated through the planned contract for difference mechanism.

The government and EDF have been locked in negotiations for months about the so-called "strike price" nuclear power will receive, with ministers keen to limit the cost to consumers to a level comparable with other forms of low carbon energy, and EDF insistent it will not be able to proceed with the project without sufficient support. Proglio said "*I have no reason to take the pressure off the people I'm talking to.*" (1)

Proglio was speaking after it was announced that Centrica has joined Eon, RWE and SSE in pulling out of new nuclear construction in England and Wales. Centrica cited spiraling costs and delays. The British Gas parent company had an option to take a 20% stake in new reactors planned for Hinkley Point in Somerset and Sizewell in Suffolk and has spent £200m developing the plans since 2009, so its decision to pull out has thrown yet more doubt on the UK's nuclear ambitions. The company warned the budget and time-scale for the project remained unclear. The first reactor at Hinkley Point was originally due to start generating in 2017 but is unlikely to do so until 2021. Centrica said there remained further "*uncertainty about overall project costs and the construction schedule*", despite EDF's insistence to the contrary. (2)

Centrica's decision not to invest means none of the proposed new reactors involves any British companies. Moreover, according to *The Independent*, there are growing fears that Hinkley Point might not happen at all, or if it does, only at a very high cost. Even with Centrica's involvement, the paper said, EDF's participation in Hinkley Point has been hanging in the balance for months with the French company locked in talks with the government to determine a guaranteed price for the electricity it generates. (3)

EDF insists its plans will not be derailed by Centrica's decision. It has started discussions with Chinese state-owned nuclear company Guangdong Nuclear Power Group (CGNPC) about joining the partnership to build the reactors at Sizewell and Hinkley. (4) CGNPC is reported to be considering taking up to a 49% stake in Hinkley Point C. Ministers have long touted public support for new nuclear but the prospect of Chinese state corporations having access to assets that are so critical to national security and the economy is likely to unnerve some (5) – including the Daily Mail which declared "*the future of British energy supply could be placed in Chinese hands*". (6)

Vincent de Rivaz, EDF Energy's chief executive, said the company would only be able to attract new partners if the UK government ensured an adequate price for nuclear-generated electricity. The energy industry had hoped that EDF would have another investor lined up by the time Centrica announced its pull-out. It was "not encouraging" that a replacement for Centrica has not been found. (7) EDF will be left with few opportunities if it joins Centrica in pulling out, because nuclear is its core business. Clearly, EDF will be at the negotiating table with the government



until the final hour. But a vote of no confidence from Centrica is not going to help those negotiations. (8)

Iberdrola, on the other hand, although it has repeatedly denied it is pulling out of the NuGen consortium to build reactors in Cumbria, *The Telegraph* says it is hard to see the numbers stacking up for the Spanish utility any more than they have for Centrica. (9)

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1. Business Green 6th Feb 2013 <http://www.businessgreen.com/bg/news/2241853/edf-boss-reveals-company-could-walk-away-from-uk-nuclear-projects>
 2. Telegraph 4th Feb 2013 <http://www.telegraph.co.uk/finance/newsbysector/energy/9846895/Centrica-exit-threatens-UK-nuclear-plans.html>
 3. Independent 4th Feb 2013 <http://www.independent.co.uk/news/business/analysis-and-features/the-triple-whammy-for-nuclear-power-centrica-cumbria-cleanup-costs-8480826.html>
 4. Reuters 4th Feb 2013 <http://uk.reuters.com/article/2013/02/04/uk-centrica-idUKBRE9130B220130204>
 5. Telegraph 5th Feb 2013 <http://www.telegraph.co.uk/finance/newsbysector/energy/9848817/Centrica-raises-more-questions-than-answers-over-UKs-nuclear-future.html>
 6. Daily Mail 4th Feb 2013 <http://www.dailymail.co.uk/news/article-2273238/Nuclear-power-stations-built-Chinese-Centrica-pulls-deal-build-reactors.html>
 7. FT 4th Feb 2013 <http://www.ft.com/cms/s/0/24d57e52-6ed8-11e2-9ded-00144feab49a.html>
 8. Guardian 4th Feb 2013 <http://www.guardian.co.uk/business/2013/feb/04/nuclear-power-edf-more-reasons-centrica>
 9. Telegraph 5th Feb 2013 <http://www.telegraph.co.uk/finance/newsbysector/energy/9848817/Centrica-raises-more-questions-than-answers-over-UKs-nuclear-future.html>



2. Strike Price or Wrong Price

Centrica has only confirmed what we knew already - for private sector investors nuclear power is financially radioactive. Ministers balk at the word “subsidy”. But that is what the Government is effectively doing in offering a guaranteed price the consumer will pay for nuclear power many years out into the future – so potentially locking us all into the wrong price. Current negotiations pitch the nuclear guarantee at more than £100 per megawatt hour. That compares with the current market price for electricity of just £55-£60/MWh. The worry is that even at that price the risk is too great for a company with private shareholders, like Centrica, as opposed to the French state-backed EDF, or the Chinese state-backed CGNPC. (1)

The Independent says the guaranteed price or “strike price” has basically been agreed. This is the guaranteed minimum that EDF would get for power produced at Hinkley Point C. The paper says EDF and the civil servants have all signed on the dotted line for a minimum price of somewhere between £95-£99.50/MWh, which was about as high as government was willing to go. However, what the nuclear industry needs is for this deal to be finalised and formally confirmed. Apparently, “red tape” means official word won’t come until March. (2)

Previous figures cited for nuclear have been as high as £160/MWh. Roland Vetter, an analyst at CF Partners, said: *“The number coming down makes it more likely that the UK goes ahead with new nuclear, from the political side. A lower number will be easier for the public to digest. On the other hand, a lower number does make it a bit more questionable whether EDF will go ahead.”* Vetter added that it was important to look beyond the headline figure at how much of the project risk, primarily around construction, would be shared between consumers and investors. (3)

Billions in taxpayer cash could be secretly funnelled to EDF to underwrite cost of proposed power station at Hinkley Point. The energy bill has quietly granted energy secretary Ed Davey the power to keep contract details of the crucial Hinkley Point C project a secret if he decides it is commercially sensitive to disclose them. Experts condemned the provision, saying it paves the way for the government to write a cheque for billions of pounds to cover the cost of budget over-runs or building delays at Hinkley Point, without the public or parliament ever finding out. Dr Robert Gross, director of Imperial College’s centre for energy policy and technology, said: *“If the government writes a contract that allows cost escalations to translate into subsidy increases then it is effectively writing a blank cheque signed on behalf of bill payers.”* (4)

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1. Telegraph 4th Feb 2013 <http://www.telegraph.co.uk/finance/comment/telegraph-view/9848450/The-key-role-the-Government-must-play-to-get-UK-nuclear-to-work.html>
 2. Independent 24th Jan 2013
 3. <http://www.independent.co.uk/news/business/comment/mark-leftly-stop-dithering-on-this-nuclear-strike-price-deal-8466336.html>
 4. Utility Week 25th Jan 2013
http://www.utilityweek.co.uk/news/news_story.asp?id=198046&title=Nuclear+strike+price+rumour+to+go+below+%26%23163%3B100%2FMWh



5. **Independent 30th Jan 2013** <http://www.independent.co.uk/news/uk/home-news/taxpayer-billions-could-be-secretly-funnelled-to-edf-to-underwrite-cost-of-proposed-power-station-at-hinkley-point-8473810.html>
Energy Desk 30th Jan 2013 <http://www.greenpeace.org.uk/newsdesk/energy/analysis/mps-nuclear-support-be-kept-secret>



3. Subsidies break Coalition Agreement

On February 7th a motion tabled by a cross party group of MPs which questioned subsidies for new nuclear power stations was debated in the House of Commons. The motion noted the Coalition Agreement, and numerous ministerial statements which committed the Government to provide “no public subsidy” to new nuclear, but also noted negotiations between DECC and EDF to fix the strike price in advance of the legislation on Energy Market Reform, which it said evidence suggests constitutes an unjustifiable subsidy to a mature industry. It called on the Government to pause the process while the Public Accounts Committee examines whether the Contract for Difference for new nuclear power generation offers genuine value for money. Proposed by: Martin Horwood, Mike Weatherley, Caroline Lucas, Martin Caton, Andrew Stunell, Zac Goldsmith, Mike Weir, Andrew George, and Tessa Munt.

Senior lecturer in Energy Policy, David Toke says the Government will not find it politically possible to give sufficient subsidies to allow Hinkley C to go ahead. It would need to give higher subsidies to nuclear power than even allegedly expensive renewable fuels like offshore wind and solar PV. Yet without such high subsidies EDF will not be able to invest in the project for the simple reason that their shareholders will expect them to put their money into ventures that can earn them more money with greater certainty. (1)

Mike Weatherley, Conservative MP for Hove, explained why he opposes further taxpayer support for nuclear. He said the strike price is a subsidy by any other name which shifts the notoriously high economic risk to the consumer and will be presented to Parliament as a non-reviewable contract that is likely to be binding for decades. This outrageous deal, forged behind closed doors, directly contravenes the Coalition commitment and wholly pre-empts the current Energy Market Reform legislation and the proper democratic process of Parliamentary scrutiny. Bearing in mind the findings by the Public Accounts Committee detailing the huge decommissioning failures at Sellafield where the cleanup will take 120 years and cost £100bn – twice the original estimate and equivalent to our entire Health budget last year – it makes sense to ask them to examine the CfD before and new deals are made. (2)

Former Guardian Environment Correspondent, Paul Brown, writing for Climate News Network said the chances of building any new reactors in the UK are fading fast. The UK Government is struggling to avert the collapse of its plans. Some members of parliament who believe that an illegal subsidy is being created challenged Ministers in a debate in the House of Commons about the intended price fix. MPs demanded that the government stops its secret negotiations with EDF because the “evidence suggests that (the price) constitutes an unjustifiable subsidy to a mature industry” and does not provide the taxpayer with genuine value for money. Martin Horwood, Liberal Democrat MP for Cheltenham, claimed MPs from five parties supported scrutiny of the proposed guaranteed price. He said: “*A wider issue for Labour members is that the last Labour Government’s pledge not to subsidise new nuclear was central to their Energy Bill, but is now being broken without much public debate.*” MPs will also point out that successive governments have promised that a new generation of nuclear plants would not be built until the problem of disposing of waste from the new stations had been solved. After Cumbria’s decision to pull out of the search for a site ministers have yet come up with an alternative, so unless they break their promise on waste there can be no nuclear stations. (3)



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1. Dave Toke's Green Energy Blog 6th Feb 2013 <http://realfeed-intariffs.blogspot.co.uk/2013/02/get-your-mp-to-support-motion-against.html>
 2. Politics Home 7th Feb 2013 <http://centrallobby.politicshome.com/latestnews/article-detail/newsarticle/mike-weatherley-mp-the-nuclear-option/>
 3. Climate News Network 5th Feb 2013 <http://www.climatenewsnetwork.net/2013/02/uks-nuclear-plans-come-unstuck/>



4. Cumbria Dump Plan Dumped

"The problems of nuclear waste haven't yet been dealt with: they've got to be dealt with in order to make any new investment possible."

David Cameron, Greenpeace Warehouse 2007

<http://www.youtube.com/watch?v=gnycGD-7SFo&feature=youtu.be>

Government plans to undertake preliminary work on an underground radioactive waste dump have been rejected by Cumbria county council. The county and its western district councils Allerdale and Copeland were the only local authorities in the UK still involved in feasibility studies for a £12bn disposal facility. Cumbria's cabinet voted 7-3 against research continuing,

Labour's Tim Knowles, who holds the environment portfolio in Cumbria's cabinet, fought for a compromise which would have seen research continue everywhere in Copeland except the national park. But he was outvoted after a series of colleagues including the county's Conservative leader, Eddie Martin, warned of radioactivity risks and the huge potential blight on tourism, Cumbria's biggest earner. (1)

Eddie Martin told *The Guardian* "...there is sufficient doubt around the suitability of West Cumbria's geology to put an end now to the uncertainty and worry this is causing for our communities. Cumbria is not the best place geologically in the UK – the government's efforts need to be focused on disposing of the waste underground in the safest place, not the easiest. Members have remained concerned throughout on the issue of the legal right of withdrawal if we proceed to the next stage. Despite assurances from government that they intend to introduce this as primary legislation, we do believe that this could have been done far sooner to ease our concerns. The fact remains the right of withdrawal is not yet enshrined in statute and we could not take the risk of saying yes today without this being absolutely nailed down. Cumbria has a unique and world-renowned landscape which needs to be cherished and protected. While Sellafield and the Lake District have co-existed side by side successfully for decades, we fear that if the area becomes known in the national conscience as the place where nuclear waste is stored underground, the Lake District's reputation may not be so resilient."

The council's Labour deputy leader, Stewart Young, said: "*The case for investment in Sellafield is now more pressing than ever. We had always raised concerns over the lack of any plan B from government and the fact that West Cumbria was the only area to express an interest in the process left the government with few options if we decided not to proceed. It is now time for the government to secure the long-term future of the nuclear industry and put in place robust storage arrangements at Sellafield while it decides how to continue the search for a repository elsewhere in the UK.*" (2) The county council's cabinet agreed that the council will encourage the Government to invest in improvements to the existing surface storage facilities at the site while a permanent solution for the country's higher activity radioactive waste is found. (3)

A statement from the County Council highlighted "*The findings of a National Audit Office report in November 2012 which ... clearly demonstrated the need for immediate improvements in the management of major projects at the site. The report criticised the site for posing a "significant*



risk to people and the environment” because of the deteriorating conditions of radioactive waste storage facilities.” (4)

The Guardian said “plans to expand the UK’s nuclear industry are in disarray” as a result of Cumbria’s decision. The Telegraph said “the future of new nuclear power stations in Britain has been dealt a serious blow.” (5) The Times said the “result piles more uncertainty on to the faltering programme to build half a dozen new nuclear reactors”. (6) Channel 4 News asked “if they can’t find a home for our nuclear waste how do they attract new nuclear investment to the UK?” (7)

But Ed Davey, the Energy Secretary, said the hunt would now go on for another part of Britain to host the site and insisted the decision would not "undermine" the Government's nuclear energy plans. (8) He insisted the government had no intention of scaling back its nuclear plans despite the “disappointing” decision. He said. *“I am confident that the programme to manage radioactive waste safely will ultimately be successful, and that the decisions made in Cumbria today will not undermine prospects for new nuclear power stations.”* Davey said the government will now begin a drive to convince communities of the case for hosting a so-called geological disposal facility (GDF). *“For any host community there will be a substantial community benefits package, worth hundreds of millions of pounds,”* Davey said. *“That is in addition to the hundreds of jobs and major investment that such a huge infrastructure project could bring.”* (9) EDF Energy said its plans to be the first company to build a new nuclear station in a generation by the end of this decade are not affected.

Allerdale and Copeland borough councils decided in favour but were overruled, as Cumbria county council – the overarching authority – decided to withdraw from the process. Ed Davey rejected calls by Copeland to be allowed to go it alone. He said both district and county authorities had to agree. (10)

A day after Cumbria County councillors voted to stop the search for an underground nuclear dump there were claims that it could still be built. The Sellafield trade unions and some local politicians began looking for ways to re-start the process. (11)

Copeland MP, Jamie Reed, still believes the geology of Copeland should be investigated and immediately started exploring options. Mr Reed said there would have to be a new process going forward and Copeland council, the Sellafield unions and the west Cumbrian community would be at the heart of it. *“If the county council is opting out, that’s their business,”* he added. Allerdale council leader Alan Smith said his authority would work with Copeland. (12) He says he will do everything in his power to make the process happen without the county council’s involvement by bringing in a Private Member’s Bill urging Parliament to recognise Copeland Council’s wish to proceed to the next stage without commitment. This would involve four or five years of desktop studies into the area’s geology. (13)

Senior west Cumbrian politicians are to meet with energy secretary Ed Davey in an effort to revive the county’s search for an underground nuclear dump. Copeland council Leader Elaine Woodburn said she accepted the Government’s process to win Cumbria-wide community approval for further geological assessments had now ended. But she confirmed that she will join Copeland MP Jamie Reed, and Allerdale council Leader Alan Smith in a meeting with Mr Davey on February 13. (14)



But if West Cumbrian councillors want to press ahead, there is the thorny matter of how you bypass the county council. Under the current planning regime the county would have to give permission for any exploratory drilling, and it would certainly have to sanction any store. Copeland could do neither. At some point there would either have to be a change in the law, or the government would have to override the local planning authority. The government might also look again at what incentives it could offer to persuade Cumbria to press on. (15) Some senior Cumbrian councillors are now openly speculating about a possible new unitary authority covering Copeland and Allerdale. (16)

Martin Forwood, from Cumbrians Opposed to a Radioactive Environment, has accused Jamie Reed of petulance by insisting Copeland could plough on. He says improved above ground storage is the only way forward. He said: "*We will continue to oppose underground dumping anywhere in the UK*". (17)

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1. Guardian 30th Jan 2013 <http://www.guardian.co.uk/environment/2013/jan/30/cumbria-rejects-underground-nuclear-storage>
 2. Guardian 30th Jan 2013 <http://www.guardian.co.uk/environment/2013/jan/30/nuclear-expansion-thwarted-cumbria-no>
 3. Channel 4 News 30th Jan 2013 <http://www.channel4.com/news/cumbria-rejects-radioactive-waste-disposal-programme>
 4. Whitehaven News 30th Jan 2013 <http://www.whitehavennews.co.uk/cumbria-county-council-say-no-to-nuclear-repository-despite-copeland-voting-in-favour-1.1031104?referrerPath=home/2.2837>
 5. Telegraph 30th Jan 2013 <http://www.telegraph.co.uk/earth/energy/nuclearpower/9837465/Nuclear-plans-in-disarray-after-Cumbria-votes-no-to-radioactive-dump.html>
 6. Time 31st Jan 2013 <http://www.thetimes.co.uk/tto/environment/article3673461.ece>
 7. Channel 4 News 30th Jan 2013 <http://www.channel4.com/news/cumbria-rejects-radioactive-waste-disposal-programme>
 8. DECC Press Release 30th Jan 2013 <https://www.gov.uk/government/news/energy-secretary-responds-to-cumbria-nuclear-waste-vote>
 9. Business Green 30th Jan 2013 <http://www.businessgreen.com/bg/news/2240210/davey-backs-new-nuclear-despite-cumbria-rejecting-waste-storage-site>
 10. FT 30th Jan 2013 <http://www.ft.com/cms/s/0/b4176af4-6aef-11e2-9871-00144feab49a.html>
 11. ITV 31st Jan 2013 <http://www.itv.com/news/border/update/2013-01-31/full-report-no-nuclear-waste-site-for-cumbria/>
 12. News and Star 31st Jan 2013 <http://www.newsandstar.co.uk/news/nuclear-store-the-fight-is-not-over-vows-cumbrian-mp-1.1031516?referrerPath=news>
 13. Whitehaven News 31st Jan 2013 <http://www.whitehavennews.co.uk/home/we-say-so-will-copeland-go-it-alone-1.1031532?referrerPath=letters/we-say>
 14. News and Star 4th Feb 2013 <http://www.newsandstar.co.uk/news/1.1032491>
 15. BBC 1st Feb 2013 <http://www.bbc.co.uk/news/uk-england-21295465>
 16. Carlisle News & Star 1st Feb 2013 <http://www.newsandstar.co.uk/news/1.1032079>
 17. BBC 1st Feb 2013 <http://www.bbc.co.uk/news/uk-england-21295465>



5. Sellafield: an extraordinary accumulation of hazardous waste

The House of Commons Public Accounts Committee has published its report on the Nuclear Decommissioning Authority (NDA) and its management of risk at Sellafield. (1)

Sellafield, it says, is home to an extraordinary accumulation of hazardous waste, much of it stored in outdated nuclear facilities. Over several decades, successive governments have been guilty of failing to tackle issues on the site, allowing an enormous nuclear legacy to build up. Deadlines for cleaning up Sellafield have been missed, while total lifetime costs for decommissioning the site continue to rise each year and now stand at £67.5 billion. An enormous amount of public money—some £1.6 billion—is spent at Sellafield each year.

The NDA says it now has a credible plan for decommissioning Sellafield. Nonetheless, given the track record on the site and given that only 2 of the 14 major projects were being delivered on or ahead of schedule in 2011-12, the MPs remain to be convinced that sufficient progress is being made. Basic project management failings continue to cause delays and increase costs, while doubts remain over the robustness of the plan, in particular whether the Authority is progressing the development of the geological disposal facility as quickly as possible.

The MPs are not yet convinced that taxpayers are getting a good deal from the NDA's arrangement with Nuclear Management Partners. It is taxpayers—rather than Sellafield Limited - operated by Nuclear Management Partners - or its subcontractors—who bear the financial risks of delays and cost increases.

The report concludes that while the lifetime plan for Sellafield may be more credible than previous plans, it is still not clear that it is sufficiently robust. Basic project management failings continue to cause delays and cost increases to critical risk reduction projects and programmes. The Authority has missed regulatory targets but expects to start retrieving waste from the 'legacy' cooling ponds and storage silos in 2015.

Under its new lifetime plan for Sellafield, the NDA does not expect to meet previous deadlines for reducing its stockpile of high level liquid waste set by the Nuclear Installations Inspectorate—which it considered undeliverable.

In 2011-12, only 2 out of the Authority's portfolio of 14 major projects were being delivered on or ahead of the schedule for that year. Basic project management failings have occurred on major projects which could and should have been avoided and were not excusable by the uniqueness of the projects or the circumstances. In particular, the Authority accepted that management of the evaporator D project had not been good enough. Costs on this project have gone up by almost £250 million since 2009 and the project is 18 months behind its original schedule because of Sellafield Limited's failure to spot deficiencies in a key element of the design, or adequately to check the capability of the supply chain.



The committee said there is no clear ambition or targets for maximising the impact of taxpayers' money spent at Sellafield in terms of job creation, business support or skills development in the area.

ITV Border called it "*a hugely damning report*" highlighted failings at Sellafield and describing the 'enormous legacy' of waste there as a 'critical problem.' Chair of the Committee Margaret Hodge MP, was quoted as saying: "*It is essential that the Authority brings a real sense of urgency to its oversight of Sellafield so that the timetable for reducing risks does not slip further and costs do not continue to escalate year on year.*" (2)

Confusingly, Unite, Britain's biggest union, said the Committee's report illustrates the massive cost of Cumbria county council's decision not to press ahead with further studies into the long-term storage of nuclear waste. The council's decision means more drift and delay and billions being spent on nuclear waste with no permanent solution on the horizon. (3)

The GMB union said: "*There is an increasing lack of trust in the consortium that runs the site both amongst the workforce and the wider community. There needs to be immediate change at the top of the consortium and a radical re-evaluation of the piecemeal hiving-off of the nuclear sector to private companies that are clearly ill-equipped to cope and have little interest in ensuring Britain has world-class nuclear facilities.*" (4)

The findings reinforce concerns that the Government's strategy for dealing with nuclear waste is unraveling, according to *The Independent*. The private companies running the plant are being paid handsomely without taking on any risk. Nuclear executives seconded from private companies are being paid "huge salaries", averaging £690,000, with one director was paid just over £1.2m. But the taxpayer has taken on the risk of delays and cost increases connected with the plant. (5)

Further criticism will be heaped on those managing Sellafield when a court case opens on 7th February that will look into claims the nuclear operator breached environmental permits in 2010 by dumping four bags of radioactive waste in a landfill at nearby Lillyhall without authorisation. Workington magistrates court will consider nine charges, although the law has since changed to make it easier for Sellafield to dispose of certain low-level waste materials at Lillyhall. The Guardian remarked that "*EDF and other companies interested in building atomic power stations know that any bad publicity around the industry will undermine already-shaky public confidence*". (6)

Margaret Hodge said. "*Furthermore, now that Cumbria County Council has ruled out West Cumbria as the site of the proposed geological disposal facility, a solution to the problem of long-term storage of the waste is as far away as ever.*" (7)

Cumbrians Opposed to a Radioactive Environment said both last year's damning National Audit Office (NAO) report and the subsequent House of Commons Public Accounts Committee (PAC) had little positive to say about Sellafield. The site's commercial operations were not part of the NAO report's remit so CORE launched its own investigation into how these operations had performed against annual targets and against original plant design specifications. The tabulated results of the investigation reveal that in the 13-year period between financial years 2000/01



and 2012/13 the site missed 83% of commercial targets and that, since the NDA took ownership of Sellafield in 2005, the failure rate has risen to 94%.

Sellafield Commercial Operations 2001 - 2012										
(see overleaf for further detail on each facility)										
	①		②		③		④			
	B570 THORP		B205 Magnox		B355 Waste		B572 Sellafield			
	Reprocessing Plant		Reprocessing Plant		Vitrification Plant		MOX Plant (SMP)			
	annual throughput (tonnes)				cannisters produced		Pu/yr utilised (kg)			
f/yr	target	actual	target	actual	target	actual	target	actual	target	actual
2000/01	833	362	500	366	n/a	131				
2001/02	734	736	800	786	300	120				
2002/03	500	502	800	765	250	333	0	0		
2003/04	671	671	905	1038	340	341	300	0		
2004/05	725	599	1000	1008	460	478	800	19		
2005/06	*	51	720	243	500	482	2900	132		
2006/07	*	0	900	594	450	322	5000	150		
2007/08	*	51	900	457	355	314	7000	0		
2008/09	280	116	540	430	400	242	7000	63		
2009/10	200	217	770	451	400	382	7000	285		
2010/11	<400	350	703	233	228	96	7000	156		
2011/12	419	429	800	603	231	221				
2012/13	408	337	695	450	187	158				
key:	met	failed								
sources: Government, British Nuclear Fuels (BNFL), British Nuclear Group (BNG) Nuclear Decommissioning Authority (NDA) Reports, Presentations and responses to Freedom of Information requests										

Martin Forwood of CORE said: *'The blame for what has become a ritual failure to set or meet annual commercial targets over recent years must lie with the NDA who, with its additional waste dumping directorate and behind the scenes work on the UK's new-build programme, has strayed so far from its original remit of clean-up and decommissioning that it has become overstretched and impotent.'*

1. Nuclear Decommissioning Authority: Managing risk at Sellafield, Public Accounts Committee 4th Feb 2013 <http://www.publications.parliament.uk/pa/cm201213/cmselect/cmpubacc/746/746.pdf>
2. ITV Border 4th Feb 2013 <http://www.itv.com/news/border/2013-02-04/urgent-action-needed-over-critical-nuclear-waste-problem/>
3. Unite Union 4th Feb 2013 <http://www.uniteunion.org/news/reportonsellafieldillustratesthecostofthenovotetonuclearwastestorage/>



4. BBC 4th Feb 2013 <http://www.bbc.co.uk/news/uk-england-cumbria-21298117>
5. Independent 4th Feb 2013 <http://www.independent.co.uk/news/uk/politics/nuclear-storage-cleanup-bill-could-cost-70bn-8479145.html>
6. Guardian 4th Feb 2013 <http://www.guardian.co.uk/business/2013/feb/04/sellafield-management-criticised-commons-committee>
7. BBC 4th Feb 2013 <http://www.bbc.co.uk/news/uk-england-cumbria-21298117>
8. CORE 3rd February 2013
<http://www.corecumbria.co.uk/newsapp/pressreleases/pressmain.asp?StrNewsID=313>



6. A second MoX plant?

According to former Environment Minister, Michael Meacher, the government will soon announce its decision to go ahead with building a second Sellafield MOX plant (SMP) at a cost of £3bn. The history of the first MOX plant, which was forced to close down several years ago, makes this decision almost unbelievable. The first plant cost £490m, plus £113m because of the falsification of the pellet data discovered in Japan, plus £100m decommissioning costs – total £700m. For this cost at taxpayers' expense it was publicly announced that it would produce 120 tonnes of MOX per year. A decade later when it was closed down it had produced, not 1,200 tonnes, but just 13 tonnes, i.e. nearly three-quarters of a billion pounds to produce only 1% of what was promised. Build another one – surely not? But that's exactly what they're going to do. (1)

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1. Michael Meacher 2nd Feb 2013 <http://www.michaelmeacher.info/weblog/2013/02/tories-about-to-build-biggest-white-elephant/>



7. Energy scenarios predict less nuclear

The Government's National Policy Statement on Energy foresees a need for 113 gigawatts (GW) of electricity generating capacity in 2025 compared with 85GW now. 59GW would be new capacity, and of this 33GW would be renewable energy, mostly wind, 16GW would be new nuclear, with 26GW left for industry to determine. (1)

With plans for the first new nuclear power station at Hinkley Point in Somerset now running about two years behind schedule it appears that the Government may be scaling back its nuclear ambitions. It now expects only 3.3GW (the size of Hinkley C) of new nuclear by 2025 and 9.9GW by 2030 (down from 4.8GW and 12GW respectively in the 2011). (2)

Instead of replacing the nuclear shortfall by planning for more renewables and helping local authorities to implement local energy strategies the Government's focus appears to have shifted to promoting more gas-fired electricity generation. According to the *Financial Times* previous government plans had estimated that 10-20 GW of new gas generating capacity would be required by 2030. But the Department of Energy and Climate Change (DECC) recently raised this to 26-37GW. (3) The chief executive of the Committee on Climate Change, David Kennedy, warned that while the 26GW could prove compatible with the UK's carbon targets the 37GW plan would breach them. (4)

The new scenarios anticipate that total electricity generating capacity will increase from 113GW in 2025 to about 120GW by 2030. The Government says more gas stations are needed, but operating at lower load factors to balance a very significant increase in intermittent renewables by 2030, allowing renewables to become the biggest source of energy generated. Gas capacity is required to meet annual peaks and to cover the eventuality that there is little or no wind at the peak, but this same capacity goes unused when the wind is blowing. For this reason 'capacity payments' are required to make the economics of the gas plants work, because the new stations aren't used very often. (5)

Renewables not reliable? Yesterday's story.

Part of the justification for the Governments plans for an expansion in gas generating capacity and its lack of ambition for the wind industry in the 2020s is because of the intermittent nature of wind energy.

The Scottish NGO report "*Power of Scotland Secured*", which is based on research by consultancy Garrad Hassan, says that contrary to popular myth, the variability of renewable power need not pose a risk to the reliability of supply. (6) With improved interconnection to other countries as well as moderate investments in storage and deferrable demand, it is possible to phase out all conventional thermal generation capacity in Scotland by 2030 and still deliver a secure and reliable electricity supply. (7) The same scenario could be scaled-up to theUK, without the need to rely on such a large expansion in gas-generating capacity.

New Scientist declared in January this year that "*anyone who tells you that renewable energy will never be reliable enough to replace fossil fuels is increasingly telling yesterday's story.*" What's needed is a way to store surplus wind and solar energy. That much has been obvious for years,



but there are signs that the problem is finally reaching its rightful place - at the very top of the renewables agenda. Technologies are advancing, particularly liquid-air storage. Investment is pouring in. And outdated regulations that have acted as a drag are being swept away. (8) Germany is on the way to ending this debate – baseload will not be required in the new energy future being planned and implemented. By 2030 the 100 per cent renewables electricity grid in Germany may be 40-50 per cent wind, 30-40 per cent solar, with the rest coming from other sources. A smart grid and storage technologies will provide the means to balance this. (9)

Figures from the Department of Energy and Climate Change (DECC) released late last year suggest that the Government expects a sharp slowdown in the increase in renewable energy capacity after 2020. Capacity is expected to reach 35GW in 2020 - a 10-fold increase in capacity between 2012 and 2020, but then only increase to 42GW by 2030. DECC's figures predict that renewables' share of the UK's electricity mix will stabilise at 34 per cent between 2020 and 2030, while the share generated from gas will rise from 29 per cent to 35 per cent, and nuclear's share will increase from 20 per cent to 24 per cent. In contrast, reliance on coal-fired power will contract from 12 per cent to just three per cent. (10)

DECC says these figures don't represent any kind of Government target or preferred energy mix, but they are hardly going to encourage the establishment of a renewable energy manufacturing base in the United Kingdom if it looks as though the demand for turbines will tail off rapidly after 2020. A report by Cambridge Econometrics for Greenpeace and WWF predicted the UK would be £20bn better off by 2030 if it pursued wind energy rather than gas and would save up to £8bn a year on imports. (11)

The Friends of the Earth Scenario

Friends of the Earth, England, Wales and Northern Ireland (FoE-EWNI) has produced an energy scenario using DECC's pathways calculator, in which renewable energy supplies 73% of electricity by 2030, with no new nuclear. (12) Electricity consumption is predicted to rise from 370TWh in 2010 to 470 in 2030, because of the need to switch heating and transport to electricity, but FoE acknowledges that it could have been much more ambitious on energy efficiency measures. Onshore wind supplies 60TWh, and offshore wind 195TWh. But what is interesting about this scenario is that wave, tidal, geothermal and hydro increases from 5TWh in 2010 to 50TWh in 2030 and solar increases from zero to 36TWh in 2030. The balance is provided by the remaining nuclear stations and gas with and without carbon capture and storage.

FoE assumes that the 4GW of interconnection with other countries we have now increases to 30 GW with extra links to Norway, Ireland and Northern Europe. They assume 20 GW of storage and 14 GW of backup plant to help with grid balancing. They say we don't need new nuclear, even given conservative estimates about demand reduction.

1. Overarching National Policy Statement for Energy, DECC, July 2011 https://whitehall-admin.production.alpha.gov.co.uk/government/uploads/system/uploads/attachment_data/file/37046/1938-overarching-nps-for-energy-en1.pdf



2. Guardian 6th December 2013 <http://www.guardian.co.uk/environment/2012/dec/06/sellafied-jobs-decommission-calder-hall-reactor>
3. Renewables and gas likely to fuel UK future, FT 9th Dec 2012
<http://www.ft.com/cms/s/0/54e96f80-3fa4-11e2-b2ce-00144feabdc0.html>
4. See also Deconstructing the numbers behind the Dash for Gas by Richard George, Energy Desk 5th Dec 2012 and Clive Bates' comments below:
<http://www.greenpeace.org.uk/newsdesk/energy/analysis/deconstructing-dash-gas>
5. Gas Generation Strategy, DECC, December 2012
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/65654/7165-gas-generation-strategy.pdf
6. The Power of Scotland Secured, report & summary, December 2010
7. <http://www.foe-scotland.org.uk/sites/files/possv6final.pdf>
8. Following the German example? An NFLA assessment on whether the Scottish 'renewable revolution' in energy policy is being realised. NFLA Briefing No. 99 August 2012
http://www.nuclearpolicy.info/docs/briefings/NFLA_Briefing_99_Scottish_energy.pdf
9. Time to nail the number one problem of green energy, New Scientist 9th January 2013
<http://www.newscientist.com/article/mg21728983.000-time-to-nail-the-number-one-problem-of-green-energy.html>
10. See Bella Caledonia 29th Dec 2013 <http://bellacaledonia.org.uk/2012/12/29/energy-futures/>
11. Business Green 23rd January 2013 <http://www.businessgreen.com/bg/news/2238232/decc-promises-a-post2020-future-for-renewables>
12. A Study into the Economics of Gas and Offshore Wind, Cambridge Econometrics, November 2012
http://assets.wwf.org.uk/downloads/a_study_into_the_economics_of_gas_and_offshore_wind_nov2012.pdf and Business Green 4th Dec 2012
<http://www.businessgreen.com/bg/news/2229288/reportuk-gbp20bn-better-off-choosing-wind-over-gas>
13. Clean British Energy, Friends of the Earth, September 2012
http://www.foe.co.uk/resource/briefings/plan_cbe_report.pdf



8. Hitachi sets out on long and winding road

Plans from Japanese firm Hitachi to build up to six new nuclear reactors in the UK have taken a step forward after Ministers asked the Office for Nuclear Regulation and the Environment Agency to assess the design of their reactor - the Advanced Boiling Water Reactor. (1) The GDA is quite a lengthy process which could take more than four years.

According to World Nuclear News (WNN) there are four operable ABWR units in Japan, (but these have an average load factor of only 45% see NuClear News No.45 <http://www.no2nuclearpower.org.uk/nuclearnews/NuClearNewsNo45.pdf>) while two more are under construction. Two more are being built in Taiwan and two planned for Lithuania, although another two have been shelved in the USA. The design is already licensed in Japan and the USA. WNN points out, disturbingly that ABWRs can run on a full-core of mixed-oxide (MOX) nuclear fuel, raising the prospect of armed plutonium shipments to Anglesey and Gloucestershire. (2)

Even assuming Hitachi receives approval for its ABWR reactor it will still need to attract financial backers before it builds reactors at its sites on Anglesey and in Gloucestershire. (3)

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1. Daily Post 15th Jan 2013 http://www.dailypost.co.uk/news/north-wales-news/tm_headline=hitachi-s-wylfa-b-reactor-design-to-be-assessed%26method=full%26objectid=32603306%26siteid=55578-name_page.html
 2. World Nuclear News 15th Jan 2013 http://www.world-nuclear-news.org/NN-ABWR_set_for_UK_assessment-1501134.html
 3. Telegraph 5th Feb 2013 <http://www.telegraph.co.uk/finance/newsbysector/energy/9848817/Centrica-raises-more-questions-than-answers-over-UKs-nuclear-future.html>



9. Life Extensions worth £44 billion

Following the announcement that EDF will extend the operating life of two of its nuclear power stations - Hinkley Point B and Hunterston B - by seven years until 2023 (1) Alan Whitehead MP has pointed out that nuclear power plants will not be subject to the Chancellors carbon floor price which comes into effect in 2013. In other words existing nuclear stations will be receiving a free subsidy from consumers which they don't need. He calculates that EDF will receive £13 billion of free money per station over the period covered by these life extensions. That's in addition to the £9 billion per plant that will come EDF's way from the extensions they were granted in 2011 making a total of £44 billion in addition to the money actually earned from producing electricity. And there will be more life extensions to come as they review the rest of the present operating fleet. (2)

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1. EDF Energy Press Release 4th Dec 2012 <http://www.edfenergy.com/media-centre/press-news/EDF-Energy-announces-seven-year-life-extension-to-Hinkley-Point-B-and-Hunterston-B-nuclear-power-stations.shtml>
 2. Alan Whitehead's Blog 3rd Jan 2013 <http://alansenergyblog.wordpress.com/2013/01/03/get-rich-quick-how-to-get-free-money-in-2013/>



10. German Renewable Notes

Germany is in the process of completely transforming its energy sector at a pace unmatched by any other industrialised nation. Nuclear power is being phased out as renewables are gradually taking over. “Energiewende” (in English energy turn) is the term used to describe the country’s politically supervised shift in direction from nuclear and fossil fuels to renewable sources of energy. The government says this transition will reduce security hazards and ensure Germany creates a greater share of its own power in future.

In the wake of Fukushima, Berlin oversaw the immediate closure of eight nuclear plants in Germany, with the rest of the stations to be shut down by 2022. At the same time, the government made it clear that it would stick to the objective of reducing greenhouse gas emissions by 40 percent by 2020 (compared with 1990 levels) and by 80 percent by 2050. Investment in renewables has become the name of the game, with a focus on generating wind and solar energy. (1)

Under the 2010 National Action Plan the percentage of energy provided by renewable is expected to double to 19.6% by 2020. This will mean that the share of renewable energies in the electricity sector will be 38.6%, in the heating/cooling sector 15.5% and in the transport sector 13.2%. In 2011, 2,000 MW of renewables were added to the grid. Total installed wind capacity is almost 30,000 MW, with four German states generating over 45% of their power from wind, and one of the largest, Lower Saxony, now fulfilling 25% of its needs from this source. An unexpected new boom in the photo-voltaic (PV) sector was also registered in 2011, with a record 7,500 MW of capacity connected to the grid, and 7,600MW in 2012. In 2011 a total of nearly 25,000 MW PV has generated 18.6 TWh, up by 60% from the previous year. According to the German Solar Industry Association (DSW), the share of solar power in the electricity mix will increase by 70% over the next four years, to 7%, and rise to 10% by 2020.(2)

Greenpeace Germany has reported that more than half of the coal-power projects planned in 2006 have been abandoned thanks to Germany’s energy policies which have seen a shift to renewable energy. Le Monde reported that the rising share of renewables in Germany’s energy mix requires more flexibility — when the sun shines and the wind blows more electricity is produced than needed meaning that renewable electricity is available at prices that threaten the profitability of coal. A lignite coal-powered station coming online in 2015 will make an overall loss over its 40 year lifetime, according to Christian von Hirsch-hausen, Research Director at the German Institute for economic research (DIW). In a system with a rising share of renewables, lignite does not have any economic benefits, he added. (3)

One German village Wildpoldsried with a population of only 2,600, produces 321% more energy than it needs – and is generating 4.0 million Euro in annual revenue by selling it back to the national grid. It is no surprise to learn that small businesses have developed in the village specifically to provide services to the renewable energy installations. Over the years the village’s green goals have been so successful that they have even crafted a mission statement. The village council hopes that it will inspire citizens to do their part for the environment and create green jobs and businesses for the local area.(4)



Germany's switch to renewable energies has drawn global attention. Some say the energy transition is impossible. But Germans want clean energy, and a lot of them want to produce it themselves. By 2011, more than half of investments in renewables had been made by small investors. Large corporations, on the other hand, have invested relatively little so far. The switch to renewables has greatly strengthened small and midsize businesses, and it has empowered local communities and their citizens to generate their own renewable energy. Across Germany, a rural energy revolution is underway. Communities are benefiting from new jobs and increasing tax revenues, which has become even more important after the debt crisis in the euro zone. Check out the video (5) to understand why the Energiewende has much support among Germans and why it's the worth the effort. For more information, visit www.EnergyTransition.de.

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1. Deutsche Welle 22nd Jan 2013 <http://www.dw.de/what-exactly-is-germanys-energiewende/a-16540762>
 2. Reset or Restart: The impact of Fukushima on the Japanese and German Energy Sectors, Anthony Froggatt, Catherine Mitchell and Shunsuki Managa, Chatham House, July 2012 http://www.chathamhouse.org/sites/default/files/public/Research/Energy,%20Environment%20and%20Development/bp0712_fukushima.pdf and PV Tech 1st Feb 2013 http://www.pv-tech.org/news/germany_installs_a_record_7.6gw_of_pv_capacity_in_2012
 3. Renewable Energy World 28th Jan 2013 <http://www.renewableenergyworld.com/rea/blog/post/2013/01/belgian-and-german-electricity-systems-keep-lights-on-despite-nuclear-turn-off>
 4. Inhabitat 21st August 2011 <http://inhabitat.com/german-village-produces-321-more-energy-than-it-needs/>
 5. An Energy Revolution in 2 minutes 4th Feb 2013 http://www.boell.org/web/139-Video_What-is-the-German-Energiewende.html
See also Huffington Post 20th December 2012 http://www.huffingtonpost.com/jeff-biggers/clean-break-book_b_2342320.html