NO NEED FOR NUCLEAR

KEEPING THE LIGHTS ON

UNNECESSARY, EXPENSIVE AND YOU PAY THE BILL

PLEASE SUPPORT THIS VITAL CAMPAIGN

This is a campaign to prevent the building of new nuclear power stations.

It is claimed that new nuclear power stations

- are needed to keep the lights on;
- provide cheap electricity;
- help deal with climate change by reducing CO_2 emissions; and
- help with job creation.

All these claims are untrue.

Unnecessary

The claim is that new nuclear power stations are needed in the short to medium term to fill the energy gap that OFGEM has warned could arise after 2015.[1] The absurdity of this is that new nuclear won't be ready until 2018-20 so it cannot help keep the lights on in 2015!

In the long term, whether or not new nuclear is needed to 'keep the lights on' obviously depends upon an assessment of the long term demand for electricity: the higher that demand, the greater the need for electricity generation. Yet in December 2009 the government admitted that it had made no such assessment - nearly two years after deciding to build new nuclear power stations. Note the following sequence of events:

- **January 2008: 'the government today concluded that nuclear should have a role to play' in order to satisfy future energy needs.[2]**
- **November 2009: the government states that 10 new nuclear power stations are needed to satisfy future electricity demand.[3]**
- **10 December 2009: the government admits it 'has not made any long-term projections of electricity demand/supply. DECC is developing scenarios… to 2050 but we don't have any definite figures for this yet.'[4]**

WHAT AN INSANE WAY TO MAKE POLICY: BUILD INFRASTRUCTURE COSTING BILLIONS OF POUNDS – THEN ASSESS WHETHER IT'S NECESSARY!

The majority party in the Coalition Government has carried on blindly with the same pro-nuclear policy.

CAMPAIGN SUPPORTERS

Greenpeace
Friends of the Earth
Compass
Stop Hinkley
Shutdown Sizewell Campaign
Nuclear Free Local Authorities
No 2 Nuclear Power
Nuclear Consultation Group
Radiation Free Lakeland
Communities Against Nuclear Expansion (CANE)
Welsh Anti-Nuclear Alliance
Centre for Alternative Technology

However, although the Government failed to assess long term electricity needs, highly detailed evidence submitted to Parliament, (see overpage) shows that the endlessly repeated mantra that the UK needs new nuclear to keep the lights on is simply untrue.

Increased cost of electricity – and you'll pay

The claim that nuclear provides cheap electricity is also untrue. Government Reports show YOUR fuel bills will be higher with nuclear power – see right hand column.

The last government and the new coalition agree that saving energy is the cheapest and cleanest way of meeting all our energy policy objectives, yet they have never carried out an assessment of 'the cost and benefit of generating electricity compared to those of demand reduction'.[5] Even though demand reduction is cheaper.

You'll pay a high price for that omission via your electricity bills!

The Campaign

In Parliament we will support the Climate Change (Sectoral Targets) Bill that promotes a non-nuclear energy strategy.

Across the country we will spread the message that new nuclear power stations are not needed and should be stopped. We will:

- Organise public meetings (especially where new nuclear power stations are planned)
- Mobilize tens of thousands of people to persuade Ministers and MPs to change their minds
- Call for a full-scale investigation into the need for new nuclear power.

Make no mistake: this will be a hard task. We need to change Ministers' minds. So your help is vital. Please do act as requested below. Thank you.

ACTION BOX

PLEASE HELP BY:

- Signing up to help by filling in the form on p.3
- Writing to your MPs (at House of Commons London SW1A 0AA) asking them to sign House of Commons Early Day Motion (EDM) No 557 calling a for parliamentary and public inquiry into the need for nuclear.

  (Who is your MP? Enter findyourmp.parliament.uk to find out)
- Writing to Energy Secretary Chris Huhne MP (same address but separate letter needed) reminding him of his promises and urging him to call a parliamentary inquiry.
- Letting us know the results so we can keep a tally.

"NO PUBLIC SUBSIDY" SAYS HUHNE

Chris Huhne, the Secretary of State for Energy, assures us that no public money will be spent on new nuclear power stations. His Minister Charles Hendry has repeated this in parliament. But consider these points:

1. Public Money versus the Public's Money

Although building new nuclear power stations will not be paid for through taxes (i.e. public money): you'll still pay the cost through your fuel bills (i.e. YOUR money) because energy companies will build them but then add the overall costs to your electricity bills. Latest estimates from the government and E-On (who plan to build the plants) and from recent nuclear projects in Europe, suggest that building all 10 proposed nuclear plants could cost between £28 and £67 billion. So your energy bills could increase by tens of billions of pounds.

Nice sleight of hand: no public money, just the public's money.

2. Comparative costs

In addition, figures from two Government departments show that the cost of electricity from nuclear is higher than electricity from renewables.

	Cabinet Office data 2002	DTI data 2005
	Cost in pence per KWh (ie what you pay)	
Nuclear	3.0 - 4.5	2.7 - 3.7
Onshore Wind	1.5 - 2.4	1.6 - 2.7
Offshore Wind	2.0 - 3.0	3.2 - 5.3 decreasing to 1.1 - 2.7 by 2020 when nuclear power is ready
Micro CHP	2.5 - 3.5	----

1 Cabinet Office Energy Review page 197.
2 Options for a Low Carbon Future, Occasional Paper No 1, page 19.

3. Then there's the hidden subsidies

- £1.6 billion of the Nuclear Decommissioning Authority's annual budget comes from your taxes. Over 10 years that's £16 billion of public money: this will increase and go on for longer if we get new nuclear.[1]
- The insurance subsidy provided by the government because the nuclear industry is only required to pay a fraction of the cost of insuring fully against claims from a Chernobyl-style disaster. If EDF in France had to insure for the full insurance costs, the cost of electricity would increase 300%.[2]
- The cost of protection against terrorism, which, as there is no equivalent for renewable energies, represents another subsidy for the nuclear industry.[3]
- The cost of decommissioning. If a compay fails, the government will have to foot the bill.[4]
- The donations to international nuclear research and promotional bodies including the International Atomic Energy Agency, the EU's Euratom Nuclear Agency and to national bodies like the National Nuclear Laboratory, the Nuclear Academy and the Nuclear Institute.

Continued on p4 >>

1 OFGEN press release 3.2.10 2 Energy White Paper page 4 3 Draft policy statement EN-6 page 6 4 Letters to Sustainable Energy Partnership 9.10.09 and 10.12.09
5 Submission to Draft National Policy Statement for Energy Infrastucture by Association for the Conservation of Energy, February 2010

LONG-TERM ELECTRICITY DEMAN

The government has made NO long-term assessments of electricity needs – yet has decided to build new nuclear power stations to satisfy that un-assessed need.

Here we have printed the detailed evidence submitted to Parliament by the Sustainable Energy Partnership (SEP). It all comes from reputable sources, including the Government's own sources. The evidence shows that even in a worst case scenario nuclear is not needed.

There are many suggested scenarios regarding future electricity demand. Some (i.e. those that promote the cheapest solution – energy saving) foresee a reduction and even the government admits that not all scenarios suggest a rise in demand. However, let's consider the worst-case scenario – whereby the demand for electricity may increase by up to 50%. Many consider that to be irresponsible in a world of finite resources: but let us ignore that and assume that demand may rise by 50%.

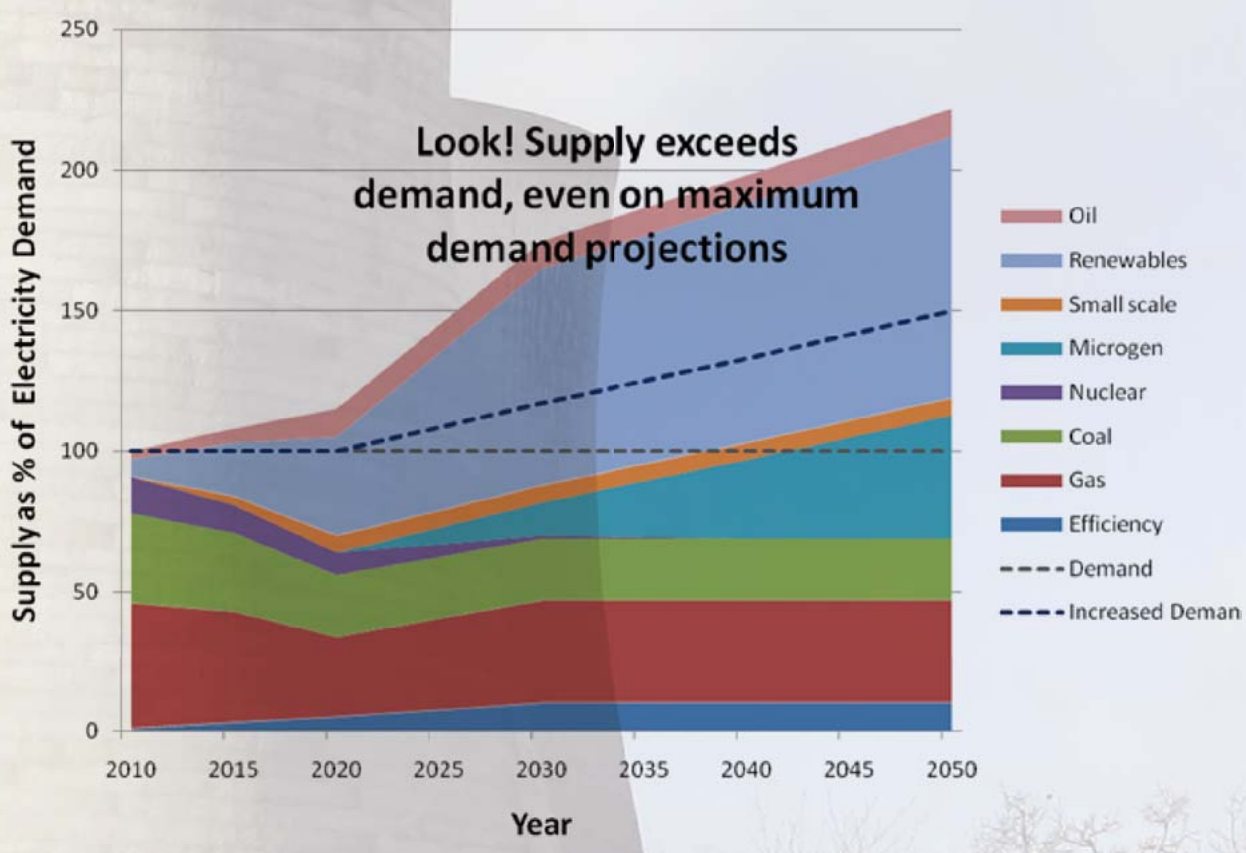
Even in such a scenario, ***there is no need for new nuclear***. Other solutions – energy efficiency, microgeneration and local generation, as well as large scale generation, can provide sufficient electricity to keep the lights on. ***What is more, most can be commenced NOW – not in 8–10 years' time as is the case with new nuclear power plants.***

The chart is the result of extensive research into the potential electricity generating capacities of various technologies. The first row shows the possible UK electricity demand for each given year in Tera-Watt hours (TWh) using the very highest theoretical possibilities (i.e. the worst case scenario – a 50% rise in demand). The figures in each column from rows 2 to 9, are a percentage of the total electricity demand for that year, or the lower of the two figures where there is a range. The last two rows (10a and 10b) show the total electricity generation that can be achieved through those technologies either as a percentage of the demand in row 1, or in Tera-Watt hours.

Comparing figures for 2050, we can see that even the worse-case scenario where demand rises to 579 TWh the SEP projections can achieve 858 TWh – massvely more than necessary. So even in scenarios where demand increases by 50%, nuclear power isn't needed for the supply of electricity to far outstrip the demand. In fact the potential for many of these renewable technologies could be even higher, but in putting together this evidence SEP chose to err on the side of caution. For example the figure for microgeneration for 2010, 2015 and 2020 is listed as zero. However, a Statutory Report produced by Element Energy for BERR pursuant to the Climate Change and Sustainable Energy Act 2006 clearly said that with the right policy framework there could realistically be 500,000 microgeneration installations by 2015 and 2–3 million by 2020. So clearly the zero entry is an under-statement. Further examples of underestimates or erring on the side of caution are explained in the references to the right.

This is but one study. Friends of the Earth are promoting the Stockholm Environmental Institute's report *The UK's Share of the Climate Challenge* that also shows that new nuclear is not needed.

		Year					
	Refs	2010	2015	2020	2030	2040	2050
Electricity demand (TWh)	1	387TWh	383TWh	386TWh	386-450TWh	386-515TWh	386-579TWh
SAVING FROM EFFICIENCY	2	1%	3%	5%	10%	10%	10%
GAS	3	45%	40%	29%	37%	37%	37%
COAL	4	32%	28%	22%	22%	22%	22%
NUCLEAR	5	13%	10%	8%	1%	0%	0%
MICROGENERATION	6	0%	0%	0%	12%	28%	43%
SMALL SCALE RENEWABLES	7	0%	3%	6%	6%	6%	6%
LARGE SCALE RENEWABLES	8	6%	19%	35%	77%	85%	93%
OIL	9	3%	5%	10%	10%	10%	10%
TOTALS % OF DEMAND	10a	100%	108%	115%	175%	198%	222%
TOTALS TWh	10b	387 TWh	414 TWh	445 TWh	675 TWh	764 TWh	858 TWh



GROVELLING APOLOGY

These two pages are, at best, difficult to read. Indeed, they may make you ill! Your eyes may fail; your sanity may waver; your stomach may churn.

So you may be wondering why we have inflicted all this information on you? Well, we have boldly asserted that new nuclear is not needed: but without the detailed proof it would be all too easy for anyone to say ' well, you would say that wouldn't you!' So we had to produce the figures – hence the chart and the graph.

But then we could have invented them or relied on shoddy research. We have done neither: but to show this we had to include the sources for all the figures. We hope that you will see why.

D: WHY NUCLEAR IS NOT NEEDED

Sources for the rows

1 – TOTAL ELECTRICITY DEMAND

2010 – We have used the 2008 figure from the The UK Renewable Energy Strategy (RES) as it is the latest available figure from the government. Renewable Energy Strategy. July 2009. Page 37 Table 2.1

2015 – Figure taken from spreadsheet used as a background paper for the RES supplied to us by DECC on 19th Jan 2010.

2020 – From RES. July 2009 Page 37, Table 2.1

2030/40/50 – Figures here are uncertain. The government concedes that no assessments have been made for these years. Our figure is based upon the government's worst case scenario (i.e the highest demand) this is based upon a statement in the Low Carbon Transition Plan. 2009 Pg 170 which states '…we can expect to see demand for electricity to at least stay the same and probably increase… In some scenarios demand could increase by as much as 50%.' However, the LCTP also makes the point that 'not all scenarios' would lead to an increase in electricity demand. Pg 171. The demand prediction is calculated as a range between a steady 386 TWh and an even trajectory, where demand increases from 386 TWh in 2020 to 570 TWh (a 50% increase) in 2050.

2 – ELECTRICITY SAVINGS FROM ENERGY EFFICIENCY

2010 – (0%) – J.A Clarke *et al.* The Role of Built Environment Energy Efficiency in a Sustainable UK Energy Economy. Energy Systems Research Unit. University of Strathclyde. This paper shows that with the right policy framework we can reduce the carbon footprint i.e. **energy** used by households by 50% by 2030. This equates to roughly 2.5% of total **electricity** use (since the domestic electricity use to which this paper refers only equals 5% of total electricity use). In addition to Clarke's paper, voltage optimization technologies could deliver electricity savings in all sectors (domestic, commercial, industrial etc.) of around 8% (www.voltageoptimisation.com). Combining these two figures, and erring on the side of caution, we assume a maximum electricity saving of 10% by 2030, and model this as an even trajectory between 2010 and 2030.

2015 – (3%); 2020 – (5%); 2030/40/50 – (10%) – See note re 2010. We have assumed no further increase beyond 2030.

3 – GAS

Gas figures were calculated from combining the projections for both Combined Heat and Power (CHP) gas, and other gas powered electricity generation.

3a – CHP gas

2010 – (7%) – Cogeneration and District Energy: Sustainable energy technologies for today…and tomorrow. International Energy Agency. Paris 2009. Pg 11

2015 – (13%) – As above page 12

2020 – (17%) – Estimate given 13% potential in 2015 and 25% in 2030

2030/40/50 – (25%) – As above page 12. We have assumed no further increase beyond 2030.

3b – Other Gas

2010 – (38%) – The UK Low Carbon Transition Plan. DECC July 2009 pg 54, states that 45% of the UK's electricity generation comes from Gas. This 2010 figure has been derived by subtracting the 2010 figure for CHP from the DECC figure for this year.

2015 – (27%) – This figure is an estimate, which has been derived by subtracting the 2015 figure for CHP from an estimated DECC figure for this year from The UK Low Carbon Transition Plan Emissions Projections, Table 7.1 page 26

2020/30/40/50 – (12%) – The UK Low Carbon Transition Plan. DECC July 2009 states that 29% of the UK's electricity generation will come from Gas. This 2020 figure has been derived by subtracting the 2020 figure for CHP from the DECC figure for this year. We assume no increase beyond 2020.

4 – COAL

The figures for Coal were calculated by adding the projections for coal power using carbon capture and storage (CCS) and other coal power.

4a – CCS Coal

2010/15/20 – (0%) – Zero entry till 2030

2030/40/50 – (22%) – Based on the Government's assumption that by 2030 all coal will be CCS - see 'The UK Low Carbon Transition Plan Emission Projections' DECC July 2009. Page 26. By 2020 22% of the UK's electricity will be generated by coal, therefore 22% will be CCS. See UK Low Carbon Transition Plan. DECC July 2009 Pg. 54. We assume no further increase beyond 2030.

4b – Other Coal

2010 – (32%) – UK Low Carbon Transition Plan. DECC July 2009. Pg 54. Chart 2

2015 – (28%) – UK Low Carbon Transition Plan Emissions Projections, Table 7.1 Pg 26

2020 – (22%) – UK Low Carbon Transition Plan. DECC July 2009. Pg 54. Chart 2

2030/40/50 – (0%) – CCS proven, no non-CCS coal

5 – NUCLEAR

2010 – (13%) – UK Low Carbon Transition Plan. DECC July 2009 Pg 54. Chart 2

2015 – (10%) – Estimate based on the UK Low Carbon Transition Plan Emissions Projections, Table 7.1 pg. 26

2020 – (8%) – UK Low Carbon Transition Plan. DECC July 2009 Pg 54. Chart 2

2030 – (1%) – www.world-nuclear.org/info/inf84.html For 2030, the only operating nuclear power station is Sizewell B, representing a bit under 10% of nuclear capacity, so roughly 1% of total electricity supply,

2040/50 – (0%) – Reference as above. By 2040 all existing nuclear stations will have closed

6 – MICROGENERATION

For microgeneration (defined as generation less than 50KW) the figures were calculated by adding the projections for micro-solar PV, micro-wind, micro-CHP and micro-fuel cells.

2010/15/20 – (0%) – Zero entry till 2030

2030 – (12%) – Potential for Microgeneration Study and Analysis: Final Report, Energy Saving Trust November 2005, page 18

2040 – (28%) – Estimate based on figures for 2030 and 2050

2050 – (43%) – Reference same as 2030 figure

7 – SMALL SCALE GENERATION

This is a mixture of microgeneration and small scale generation up to 5MW.

2010 – (0%) – Zero entry

2015 – (3%) – Assuming an even trajectory towards the 2020 figure.

2020/30/40/50 – (6%) – Calculations by Friends of the Earth based entirely upon modeling commissioned by DECC: Design of Feed-in Tariffs for sub 5Mw Electricity in Britain, Quantitative Analysis for DECC – Poyry and Element Energy June 2009. Assuming no further increase after 2020.

8 – LARGE SCALE RENEWABLES

This category includes anything above 5MW, and was calculated by adding the projections for solar electricity from the Sahara, the Severn Tidal Barrage, onshore and offshore wind, solar PV, hydro-power, wave power, tidal stream and tidal wave technologies, burning of landfill and sewage gas, and electricity from biomass. The 2010 figures are unknown for individual technologies but the 6% total is taken from Low Carbon Transition Plan DECC 2009, page 54 Chart 2.

8a – Imported solar power from the Sahara

2010 – Unknown

2015/20 – (0%) – Zero entry till 2030

2030/40/50 – (10%) – Sustainable Energy - without the hot air. David J.C. MacKay pages 177-185; and p212, where the figure given in Plan G is 7 kWh per day per person. This is a conservative estimate as alternative scenarios suggest a greater amount could be produced by imported solar. We assume no further increase beyond 2030

8b – Severn Tidal Barrage

2010 - Unknown

2015/20 – (0%) – Zero entry till 2030

2030/40/50 – (9%) – Severn Tidal Barrage Phase One Consultation: Government Response, DECC July 2009, page 1. We assume no further increase beyond 2030

8c – Offshore Wind

2010 – Unknown

2015 – (8.6%) – This figure is an estimate based on the National Grid figures for 2020, assuming gradual progress over the next 10 years; therefore 2015 figure is half-way

2020 – (17.1%) – 'Gone Green', a Scenario for 2020, National Grid Dec 2008. The figure is quoted as 19GW, this is converted into 66TWh per year using the conversion rates in the SKM paper (http://www.berr.gov.uk/files/file46779.pdf) (where every 1GW installed capacity of offshore wind provides 3.5TWh)

2030 – (30%) – Renewable Energy Strategy Consultation, BERR June 2008, page 11. The figure is quoted as 33GW which is converted into 116TWh per year, using the conversion rates in the SKM paper

2040 – (36.5%); **2050** – (43%) – Figures are estimates based on the assumption that the rate of expansion of offshore will halve from 2030

8d – Onshore Wind

2010 – Unknown

2015 – (3.5%) – This figure is an estimate based on the National Grid figures for 2020, assuming gradual progress over the next 10 years; therefore 2015 figure is half-way

2020 – (7%) – 'Gone Green, a Scenario for 2020', National Grid Dec 08. The 2020 figure is quoted as 11GW which is converted to 26.95TWh using the conversion rate in the SKM paper (http://www.berr.gov.uk/files/file46779.pdf) (where every 1GW of installed capacity provides 2.54TWh per year)

2030 – (8.7%); **2040** – (10.5%); **2050** – (12.2%) – Figures are estimates based on the assumption that the rate of expansion of onshore wind will halve from 2020

8e – Solar PV

2010 – Unknown

2015 – (1.9%) – Centre for Alternative Energy. Zero Carbon Britain 2007 Pg 86. Because we are starting later than CAT envisaged we have reflected these findings in our table in the figures for 2015 and 2030 (rather than 2010 and 2025 as in the CAT report)

2020 – (4.4%) – Figure is an estimate based on the figures for 2015 and 2030

2030/40/50 – (9.6%) – Centre for Alternative Energy. Zero Carbon Britain 2007 Pg 86. Because we are starting later than CAT envisaged we have reflected these findings in our table in the figures for 2015 and 2030 (rather than 2010 and 2025 as in the CAT report). We assume no further increase beyond 2030

8f – Hydro

2010 – Unknown

2015 – (1.2%) – Extrapolated from 2010 and 2030 figures, assuming steady growth, as on page 29 of Knight Merz (SKM) paper ' Quantification of constraints on the Growth of UK renewable generating capacity' page 27

2020 – (1.2%) – Extrapolated from 2010 and 2030 figures, assuming steady growth, as on page 29 of above document.

2030/40/50 – (1.3%) – BERR figures on potential max capacity by 2030. We assume no further increase beyond 2030, therefore potentially underestimated as growth may rise.

8g – Wave power

2010 – Unknown

2015 – (0%) – Limited growth until 2020 See SKM paper http://www.berr.gov.uk/files/file46779.pdf

2020 – (0.1%) – Extrapolated from 2030 figure and growth graph on page 44

2030/40/50 – (1%) – Max capacity predicted at 2030, with medium growth rates, 1.7GW equates to 4KWh. We assume no further increase beyond 2030, therefore potentially underestimated as growth may rise

8h – Tidal Stream

2010 – Unknown

2015 – (0.3%) – Extrapolated from 2030 figure assuming steady growth (page 47) see SKM paper http://www.berr.gov.uk/files/file46779.pdf

2020 – (0.6%) – Extrapolated from 2030 figure assuming steady growth (page 47)

2030/40/50 – (0.9%) – Maximum predicted by 2030 is 3.5TWh. We assume no further increase beyond 2030, therefore potentially underestimated as growth may rise

8i – Tidal Range

2010 – Unknown

2015 – (0%) – Limited growth until 2020, assuming medium growth rate see SKM paper (page 50) http://www.berr.gov.uk/files/file46779.pdf

2020 – (0.23%) – Extrapolated from 2030 figure

2030/40/50 – (0.46%) – Maximum at 2030 predicted to be 1.8TWh, see Pg 49 - excluding Severn Barrage figures. We assume no further increase beyond 2030, therefore potentially underestimated as growth may rise

8j – Landfill gas

2010 – Unknown

2015 – (1.6%) – Averaged from 2010 and 2020 figures. see SKM paper Pg 52 http://www.berr.gov.uk/files/file46779.pdf

2020 – (1.4%); **2030** – (0.9%) – Taken from medium growth projection

2040 – (0.7%); **2050** – (0.6%) – Extrapolated from predicted decline in resource, shown on graph on page 32

8k – Sewage Gas

2010 – Unknown

2015 – (0.23%) – Averaged from 2010 and 2020 figures. Taken from medium growth projection see SKM paper pg 52 http://www.berr.gov.uk/files/file46779.pdf

2020 – (0.24%) – Taken from medium growth projection

2030/40/50 – (0.27%) – Taken from medium growth projection. No figures shown after 2030, but assumed as steady, from graph on page 34

8l - Biomass

2010 – Unknown

2015 – (1.77%) – Averaged from 2010 and 2020 figures. Taken from medium growth projection, see SKM paper above

2020 – (3.07%) – Taken from medium growth projection

2030/40/50 – (5.03%) – Taken from medium growth projection. No figures shown after 2030, but assumed as steady, see graph on page 37

9 – OIL AND OTHER NON-RENEWABLE SOURCES

2010 – (3%) – UK Low Carbon Transition Plan. DECC July 2009 Pg 54

2015 – (5%) – Estimate based on the figures for 2010 and 2020

2020/30/40/50 – (10%) – UK Low Carbon Transition Plan. DECC July 2009 Pg 54. We are assuming no increase in oil beyond 2020 so this figure stays the same

10 – TOTALS

10a – Percentage of demand

2010 – The Total of rows 1 to 9. Figures in this column are all expressed as a percentage of demand in row 1a, i.e. as a percentage of 387TWh

2015 – As above. Figures in this column are all expressed as a percentage of demand in row 1a, i.e. as a percentage of 383TWh

2020/30/40/50 – As above. Figures in this column are all expressed as a percentage of demand in row 1a, i.e. as a percentage of 386TWh

10b – Total supply in TWh

Total electricity supply in TWh is calculated by multiplying the demand for that year (row 1) by the achievable percentage in row 10a. E.g. in 2010 it's 100% of 387TWh i.e. 387 TWh

2015 – Row 1a multiplied by row 8, i.e. 108.1% of 383TWh = 414 TWh

2020/30/40/50 – Row 1a multiplied by row 8

NO NEED FOR NUCLEAR

This will be a hard campaign to win: the task is enormous. We need to change minds and perceptions that nuclear is needed to keep the lights on. Please help by signing and returning the form, and please see the action box on page 1

Sign-up Form

☐ I/we wish to support this campaign. Please keep me/us informed (please tick)

☐ I would like to give a donation to this campaign of £ _____

(Please make cheques payable to No Need For Nuclear)

☐ I would like to help organise a public meeting (please tick)

☐ Please send _____ further copies of this broadsheet (please tick)

PLEASE PRINT CLEARLY

Name (of individual or organisation) _____

Email _____

Address _____

_____ Postcode _____

Tel _____

Mobile _____

MP/constituency (if known) _____

Please return to Tanya Kenny, 84 Clarendon Road, London E17 9AZ (or email your details to info@noneedfornuclear.org)

Friends in high places?

We call on Mr Clegg and Mr Huhne to honour their election pledges, and support this campaign and stop new nuclear power stations being built.

Rt Hon Nick Clegg MP
Deputy Prime Minister

We will 'reject a new generation of nuclear power; based on the evidence nuclear is a far more expensive way of reducing carbon emissions than promoting energy conservation and renewable energy'

Liberal Democrat Election Manifesto 2010, p59

Rt Hon Chris Huhne MP
Energy Secretary of State

FALSE CLAIM NO 3: JOBS

The government claims,[1] that each new nuclear reactor will create 'up to 9000 jobs'. At the Sizewell public meeting[2] we asked for further information. They replied that they 'cannot give a definite view on how much of the workforce will be "local"' adding that 'it is important to note that the construction workforce might not all be site based… pre-assembled units would allow construction to be spread around'[3] So not 9,000 local jobs after all!

They provided information based on the previous Sizewell reactor as a guide. This revealed that Sizewell B resulted in just 4,385 jobs, and less than 50% of these (only 2166) were local.[4] So 9,000 new local jobs might only mean just over 2,000!

2,000 still sounds significant, until the full facts are revealed – **that the alternatives will provide many more jobs.**

- A government report in 2008 showed that microgeneration could produce 31,000 jobs by 2020 and 68,000 by 2030 if certain policies were implemented. These policies were not implemented so thousands of jobs were lost because of reliance on new nuclear to fill the so-called 'energy gap'.
- While small scale renewables could provide between 1,000 jobs per year per TeraWatt hour (wind energy) and 107,000 jobs (photovoltaics), large scale nuclear will only provide a measly 75 jobs.[5]
- Working towards the 30% domestic energy efficiency targets, set under the 1995 Home Energy Conservation Act, would have resulted in 250,000 jobs, according to a Government Report.[6] But those targets were abandoned – and large numbers of these jobs were also lost. Thousands in areas, like Sizewell, close to proposed new nuclear sites.[7]

Reliance on new nuclear rather than energy saving lost tens of thousands of jobs that could have been created NOW – not in 5–10 years time when new power stations are commenced.

The message is clear: go nuclear, lose jobs!!

1 Hansard 9.11.09 col 31 and at the Sizewell meeting in Leiston, Suffolk on 5th December 2009 - see Official Transcript pages 14 & 15
2 Sizewell meeting Official Transcript pages 14 & 15
3 Letter from Michael Sugden, Office of Nuclear Development. DECC 12th January 2010
4 Sizewell B A Successful Partnership Part 2 page 15
5 Jose Goldemberg (2004) The Case for Renewable Energies. Instituto de Electronica e Energia. University of Sao Paulo. pp 5
6 Report to Parliament by the Secretary of State, April 1999 pursuant to the Home and Energy Conservation Act 1995
7 See our website www.noneedfornuclear.org.uk for the full details for each site.

FALSE CLAIM NO 4: NUCLEAR POWER AND CO_2 EMISSIONS

THE CLAIMS

'We need to reduce carbon emissions in the way we produce energy (so) we have concluded that nuclear should have a role in generating electricity'

Rt Hon Gordon Brown, former Prime Minister
Foreword to the Energy White Paper January 2008

'Nuclear power has long been Britain's most significant source of low carbon energy'

Conservative Energy Policy
'Rebuilding Security' p.18
approved by the
current Prime Minister,
Rt Hon David Cameron

THE EVIDENCE

The reality is different.

Nuclear energy is not carbon-free. Mining, milling, transport, enrichment and fabrication of fresh nuclear fuel from uranium result in significant carbon emissions. After use, the fuel needs to be cooled at the reactor site, stored for up to 160 years, and finally transferred to an interim storage site or to a final location for long-term management. All of this releases greenhouse gases.

Even government agrees that nuclear power is no better than wind power as regards CO_2 emissions.[1]

A recent academic study of *over 100 detailed assessments* of the whole life cycle CO_2 impact of various technologies showed the following:

1 Nuclear White Paper January 2008 page 53

LIFECYCLE ESTIMATES FOR ELECTRICITY GENERATORS

Technology	Capacity/configuration/ fuel	Estimate (gCO2e/kWh)
Wind	2.5MW, offshore	9
Hydroelectric	3.1MW, reservoir	10
Wind	1.5MW, onshore	10
Biogas	Anaerobic digestion	1
Hydroelectric	300 kW, run-of-river	13
Solar thermal	80MW, parabolic trough	13
Biomass(various forms)		14 –41
Solar	PV Polycrystalline silicone	32
Geothermal	80MW, hot dry rock	38
Nuclear	Various reactor types	66

Benjamin Sovacool, *Energy Policy* 36 (2008) 2940– 2953
http://www.nirs.org/climate/background/sovacool_nuclear_ghg.pdf

No Public Subsidy

Continued from Page 1

4. The 'carbon floor price' tax

This is a tax (i.e. YOUR MONEY) which makes up the difference between the current traded price of carbon, and what the power station builders say is the price they require carbon to be in order to build a nuclear power station, rather than cheaper alternatives like fossil fuels.

Without it Electricite de France say they can't guarantee to build Sizewell C or Hinckley Point C.

According to the Climate Change Committee, with low gas prices (as now), the 'floor price' will need to be 70 euros a tonne of carbon to guarantee new nuclear.[5]

The last traded price of carbon was 14.65 euros a tonne,[6] so the new tax will represent almost a fivefold increase in the price of carbon.

The effect on your fuel bills? Every extra euro charged per tonne of carbon adds 170m euros to UK fuel bills. So that means an additional £8,000m every year on fuel bills – **increasing everyone's bills by around one-quarter**.
No public money?

5. The cost of the clean-up

The Government is so keen to encourage investment in nuclear that it has promised to set a fixed cap on the cost of radioactive waste disposal, to safeguard the industry against any unexpected price-rise in the future.

So the nuclear industry will pay a Fixed Unit Price (FUP) to the Nuclear Decommissioning Authority (NDA) to safely dispose of their waste. The waste will need to be stored until it's buried in around 2125. So the government will have to accurately predict the costs of disposal **more than 100 years in advance**. If the FUP is set too low to cover the costs the NDA will have to get additional funds from taxes – public money, but it can't set the FUP any higher as the nuclear industry won't invest in the first place. So it's heads they win tails the public loses.

So the subsidies and taxes creep up and up. You will pay billions to support this unwanted and unnecessary industry whatever Ministers say.

References

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5 David Kennedy, Chief Executive, Climate Change Committe, launching Second Annual Report, June 30 2010, London
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