TIME FOR AN ENERGY REVOLUTION IN THE EAST
Foreword

Renewable energy technologies are coming to maturity at exactly the time we need them most!

The destabilisation of the world’s climate systems – which we had another taste of in Britain with the widespread flooding earlier this year – urgently requires us to rethink how we provide ourselves with the energy we need for our homes, transport, and industry.

At the same time, the research and development of renewable energy technologies, such as solar, wind, and wave power, has now borne fruit to such an extent that costs are coming down and renewables are rapidly becoming competitive with fossil fuels – without of course the enormous costs which fossil fuels impose on everyone through air pollution and effects on the climate.

We should seize the opportunities this happy coincidence provides. This is true in many places, but one of them is undoubtedly the Eastern region of England. The European Parliament elections in May are bound to put a spotlight on climate and energy policies, which have become a key part of the European Union’s work in recent years.

Rupert Read and his colleagues on the Green Party’s list of candidates are well-placed to provide some leadership on these issues in the Eastern region, and I am very glad to see that they have set out in this report what they are intending to argue for and do. They deserve your support.

Jonathan Porritt, former Chair of the Sustainable Development Commission
An energy revolution in the East

A report by Rupert Read, lead MEP-candidate for the East of England
In Eastern England, we live near or along the ‘energy coast’. Although largely untapped, there is enormous potential for renewable energy to transform and green our economy, to revive struggling coastal towns and to create thousands of lasting jobs.

We don’t need fracking or nuclear here in the East. By growing renewable energy and energy-efficiency we would build a stable, reliable local and regional economy.

Wind-power is not unpopular - with 70 per cent of people nationally saying they would be happy to have a wind farm built in their local area. Community renewable energy can raise this figure further.

The upshot would be: every school, every hospital, every Council-building a power-station. (This is the potential of micro-generation: from solar and wind to ground and air heat pumps). And a level of renewable energy generation on the macro scale which, when combined with a serious reduction in energy demand and energy waste, would obviate the need to continue the out-of-date fossil/nuclear economy.

What does an energy revolution look like?

1. An energy revolution would create thousands of lasting, green jobs
2. Marine and tidal energy would be harvested in a sustainable way, on a large scale
3. It would regenerate and revive coastal towns such as Gt. Yarmouth and Lowestoft
4. Renewables would get the same tax breaks as fracking currently gets – and those tax breaks would be removed from fracking (as would the government subsidy for nuclear: the removal of which would finish nuclear, which cannot stand on its own feet, above all because it requires an open-ended subsidy to cover clean-up costs in the case of accidents)
5. The capital costs to start up renewable projects would be funded by a tax on bankers’ bonuses. The running costs of these projects pay themselves through the free, clean energy they create
6. The bankers’ bonus tax would also create grants for communities to set up their own micro-generation projects, where people own their energy supply
7. A Robin Hood tax on financial transactions would fund insulation and micro generation in all social housing – new and old
8. Marine energy generation and coastal erosion protection would work together, using the latest green technology
9. EU planning barriers would be removed by streamlining the planning process for renewable projects
10. Single-market policies on energy development would be exempted from the EU’s ‘state aid’ rules
Introduction

The extreme storms which created widespread flooding recently and the extreme tidal surge on the East Anglian coast last December will become more frequent as climate change progresses. This is not simply overall global warming, but also more ‘energetic’ weather systems and an increase in extreme weather events. Despite clear warnings from scientists for over thirty years that man-made climate change is already happening and will get more severe unless there are major efforts to reduce emissions of CO2 and other greenhouse gases - mainly emitted from energy production from fossil fuels - the Government’s commitment to reducing UK emissions appears to be weakening and it is even opposing national renewable targets at the European level.

The time has come for action. There can no more delays. Decisive action is needed to reduce climate change. This winter’s weather was a wake-up call as to why we must act now.

There are a number of places in Britain at the forefront of developing new systems for energy – some because of local renewable energy resources such as the tides, some because of expertise in technology, some because of the commitment of local businesses and communities. This is about communities working together to build resilience and escape the clutches of the energy corporations, with thousands of skilled jobs being created in dynamic and expanding industries. One of these places is East Anglia. Our flat landscape and North Sea seascape is ideal for wind; there are significant opportunities for marine energy (which can in some places be bolted directly onto the existing wind-electricity-transmission-infrastructure); small innovative companies are massing places such as Lowestoft to take advantage of this and to generate ‘network’-capital among themselves; the intellectual brilliance of Cambridge University and the Research Park and the University of East Anglia’s world-leading Environmental Science department.

However, because of the Coalition Government’s lack of clarity about its commitment to renewables, its continued support for fossil fuels such as fracked gas and oil, and various ‘anti-green’ speeches and statements by ministers, the investment we need to see in the East of England renewable sector is being undermined.

The Green Party sees the role of politicians as being to support the transition to a sustainable energy future and this report explains how. We believe that the East of England has a significant role here and that we need our regional politicians to show leadership. Although European politicians have given a welcome lead, this has been blocked by the Coalition Government, dominated by extreme Euro-scepticism and under the influence of climate-change denial. We need to find ways for the charge to leap the Westminster gap and capitalise further on the successful groundwork that has been built by renewable energy enthusiasts across our region.

Greens in the East of England have already taken action on these issues. Green Party councilors in Norwich (on the City Council) and Norfolk (on the County Council) have achieved the installation of millions of pounds’ worth of solar power and other renewables-generating and energy-saving technologies in Council buildings. The ESCO (Energy Savings Company) that the Norfolk Green councillors got through a Tory-run Council was particularly remarkable.
‘Shifting investment from current patterns of investment within the Cohesion Policy and the CAP [Common Agricultural Policy] to green sectors would increase job creation per euro by a factor of three.’

European Environmental Bureau.

The debate amongst scientists over whether climate change is happening, and whether our CO2 emissions are causing it, is over. The priority now is to adopt policies to shift our patterns of energy consumption so that we massively and rapidly reduce those emissions. The Centre for Alternative Technology has developed a scenario for Britain to be a net zero carbon emitting economy by 2030. While this does require massive investment and some changes of lifestyle, it does indicate the potential for major reductions in CO2 emissions.

The intermittency of some renewables such as wind and solar is often cited as a major problem. Research from Oxford University shows clearly that this problem is drastically overstated in the context of a renewables-based energy system. This is because a ‘mixed basket’ of sources of renewable energy will overlap to overcome issues of intermittency. Tidal is 100% reliable; wind, solar and wave will tend in most cases to not be all absent at the same time; especially once one takes into account the ability to distribute energy around the national grid: if the wind is down in East Anglia, it will often still be up in Scotland. And the tides of course are delivering maximum energy at different points around the coast at different times. And in cases of real emergency gaps in supply, biomass can be used: biomass CHP (Combined Heat & Power) plants in the East for such emergency use - unlike large-scale biomass (or biofuels - see below) that are based on imported wood etc - are a viable part of a green energy policy.

But in any case: Grid operators do NOT have significant problems with balancing supply and demand. As the proportion of renewables increases above 25%, means of shaping the power demand will become desirable. These may include tariffs which discourage use at times of shortage on the grid, and electric vehicles which can be charged at times of low demand. Energy storage systems are one of the most important and rapidly developing areas of research and development, with emerging technologies just beginning to enter the commercial market. This is a massive opportunity and our high-tech specialist industries in the East need to be at the forefront. Also possible are large hot water heat storage systems for district heating, making use of renewable energy or heat from CHP at times of surplus, this latter principle being used in Denmark and elsewhere and was used in London from the 1950s. A Europe-wide energy grid, as we discuss later, could help to solve these problems and provide consistent supply of renewable electricity.
In a time of economic stagnation the energy sector—both energy efficiency and renewable energy generation—has continued to grow and is potentially a creator of a vast number of local and skilled employment. The East of England is already in receipt of considerable EU funds through the Common Agricultural Policy. The Investing for the Future report, produced by a group of environmental NGOs, demonstrated that changing the criteria for convergence funding so that there is a key target to achieve best possible environmental outcomes could lead to a massive expansion of green jobs across the EU. They demonstrated that for each €1bn. of cohesion investment nearly 100,000 jobs could be created in home insulation and more than 70,000 jobs in the renewable energy sector. The cost of creating employment in these sectors is much lower than in the sectors currently funded.
Energy No-Nos

‘the British economy would be £20bn/yr better off by 2030 if it favoured offshore wind over gas-fired generation as the driver of an essential overhaul of the country’s existing infrastructure’.

Cambridge Econometrics

Fracking

Hydraulic fracturing or ‘fracking’ is a new process by which water and chemicals are pumped into the earth to force out shale gas held in rocks. As the map shows, there are sites in some parts of the East of England that are considered to have potential for fracking. Following a decision by the Liberal Democrats at their summer conference to change their policy and support fracking, the Green Party is now the only UK party to be wholly opposed to this damaging industrial process.

Areas under threat from fracking.
Key: Pale yellow indicates licences have already been issued; dark blue indicates areas under consideration for licensing for fracking.
Source: Department for Energy and Climate Change, Strategic Environmental Assessment for Further Onshore Oil and Gas Licensing (December 2013).

Because fracking is merely a less efficient way of gaining access to fossil fuels than conventional drilling, it can never be part of a sustainable energy policy. We need to leave more of our fossil fuels in the ground to prevent carbon emissions from continuing to grow, not developing dirtier methods for extracting them.

In the US, fracking has led to wild-west style exploitation of shale gas and devastated environments, as well as having serious impacts on human health and water supply. There is also considerable public concern about the potential negative effects from the use of unconventional methods for extracting fossil fuels which many see as a distraction from the need to transition to a low carbon energy infrastructure.

Although the government has argued that fracking may result in lower fuel bills, a senior executive at Caudrilla was caught on tape admitting that ‘a domestic shale gas revolution would be extremely unlikely to reduce prices’ (as Chairman Lord Browne has admitted in public), whilst the independent consultancy Cambridge Econometrics found that ‘the British economy would be £20bn/yr better off by 2030 if it favoured offshore wind over gas-fired generation as the driver of an essential overhaul of the country’s existing infrastructure’.

Unlike windpower, fracking is invariably unpopular with communities that are threatened with developments, and the more so as they learn more about the technology. A recent poll by the Institute of Mechanical Engineers found that 47 per cent respondents would not be happy for fracking to take place within 10 miles of their home, compared to 14 per cent who approved. Greens are concerned that this technology is being foisted on local communities, which are being pressured to accept such developments by being offered what amounts to little more than a bribe—100% of the business rates—at a time when their government funding is being drastically cut.
Alongside fracking, the Government is supporting a new generation of nuclear power stations as supposedly a clean and safe form of energy. Nothing could be further from the truth. This out-moded and expensive technology is being abandoned across the world. The UK is one of few countries left in Europe where politicians see this as a key part of the future of our energy supply. Following the Fukushima disaster, governments in most countries conducted a review of their energy policies. China, Germany and Japan, and India now all generate more power from renewables than from nuclear power, and Germany and Japan are decommissioning nuclear / putting it completely on hold. The most recent World Nuclear Industry Status Report shows an industry in decline.

The extreme expense of nuclear is demonstrated by the massive subsidies that need to be offered to the developers of the Hinkley site (in Somerset), given despite earlier statements by the Government that there would be no subsidy. The government has committed the British electricity consumer to buying power from Hinkley C at twice the present wholesale price of electricity - for 35 years, index linked for inflation - together with various other financial supports and guarantees. This cash will flow directly to EDF, owned by the French Government, and their Chinese backers.

In spite of Government hype, the next generation of nuclear stations are far from becoming a reality. Due to the high level of subsidy the Hinkley decision has to undergo state-aid scrutiny by the EU Commission, which it seems unlikely to emerge from unscathed.

Biofuels are an example of a good intention leading to a disastrous outcome. This problem began with what seemed like a simple and natural solution to our energy problems: plants absorb carbon dioxide as they grow, which is balanced by its release when burned to create power. The EU’s biofuels targets require member states to source 10% of transport energy from renewable sources including biofuels by 2020. But later research demonstrated that many of the biofuels crops actually produce more CO2 than they save. The present EU policy framework is far too blunt an instrument. All biofuels and sources of biomass are accepted as falling within the definition of ‘renewable’, even though in some cases they are found to be significant net carbon emitters. So they help the Government get towards its 20% official target, even though they do nothing to help us reduce our carbon emissions.

Grain, an NGO that supports small farmers across the world, identifies the EU carbon reduction framework a cause of increasing world hunger. The latest proposal sets a target of an energy equivalent of 40 million tonnes of oil to be provided by biofuels as part of the 20% renewables target to be reached by 2020. The expansion of biofuel production can only increase the pressure on land in the majority (‘developing’) world, destroy more habitats for endangered species, and threaten the livelihoods of some of the world’s poorest people. Oxfam express deep concern about this policy, arguing that it will increase global hunger directly, through removing peasants from their land, and indirectly, by increasing the price of staple foods on the global market.

There is nothing green about large-scale use of ‘biofuels’ (agrofuels). Unlike small schemes based on the re-use of old chip-fat, etc., Eastern England should say a firm ‘no’ to the biofuels bubble.
Energy Yes Please!

The evidence shows that the public are in line with Green policy on energy. In Yougov polling, 65% of people said the government was right to support solar and tidal, with 56% agreeing with government financial support for wind-power (polling for the Sunday Times in August 2013). It is the nature of renewable energy solutions to be varied and often small-scale, so this section will just give a flavour of some of the huge opportunities available in the East of England as we make the transition to a low-carbon future.

Windpower

The European Wind Resource map
Source: Ecotricity, based on Risoe National Laboratory data

The wind resource map shows how well the UK is endowed with energy resources. The table that follows shows how far we are lagging behind in exploiting these resources. This is an economic opportunity missed, as well as an opportunity to protect our environment and future generations from climate change.

<table>
<thead>
<tr>
<th>Country</th>
<th>% renewable electricity</th>
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<tbody>
<tr>
<td>Iceland</td>
<td>100</td>
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<tr>
<td>Norway</td>
<td>97</td>
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<tr>
<td>Brazil</td>
<td>89</td>
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<tr>
<td>Austria</td>
<td>4</td>
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<tr>
<td>New Zealand</td>
<td>73</td>
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<tr>
<td>UK</td>
<td>12</td>
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Although much of the discussion about wind turbines in the media focuses on their ‘unpopularity’, in fact this does not reflect the centre of gravity of British opinion. A poll commissioned by the Mail on Sunday asked people whether they would be happy to have a wind farm built in their local area: 70% said that they would. And it is important to remember that, unlike the price of fossil fuel, the price of wind as fuel will never go up.

There have been a huge range of myths pedalled about the impacts of wind-turbines ranging from their excessive noise to their cruelty to birds. The graphic illustrates the tiny impact that wind turbines have on birdlife in the US context compared with their natural predators such as cats. The reality is that birds are massively more threatened by climate change which will destroy a range of vital habitats such as wetlands.
The myth that wind is an insignificant to our overall electricity supply is laid by the following graphic, which illustrates the source of electricity on a day in December 2013 (daily information available here: http://www.bmreports.com/bsp/bsp_home.htm). It is important that we get past these myths because the UK is richly endowed with wind resources. We are missing out on a huge opportunity to build energy resilience and create employment because of the misinformed and misguided activities of anti-wind lobbyists.

We believe that, here in the East, and across the country, windpower schemes especially (also other renewable energy schemes, generally) should be community renewable energy schemes. This is common on the continent - it is an area where we can and should learn from our EU partners. Community wind schemes mean that the local community sees the benefit it gets from wind-power, quite literally: in terms of significant financial benefit, and in terms looking ahead of security of supply.

Work going on at Ness Point (the easternmost point in Britain, at Lowestoft) is showing how wave-power devices can be installed along with existing offshore wind turbines (making them cheap, because they use existing infrastructure for their construction and for energy transmission), and how they can contribute to the fight against coastal erosion (crucial, on our climate-vulnerable coastline, which took a terrible pasting in December’s storms) by building up sandbanks. Talk about a win-win!

Somewhat similarly: installing a tidal-power flood-barrier at Great Yarmouth could protect the Norfolk Broads from the ravages of rising sea-levels and unprecedented tidal surges for 100 years - while generating electricity at the same time.

It’s logical, really: wave and tidal take energy out of a sea that is growing unnaturally energetic. And use it to reduce our dependence on fossil fuels.
In brief...

Solar photo-voltaic systems have come down rapidly in cost recently and can play an important part of a balanced localised renewable network across the East of England. Sudden reductions in level of support by feed-in tariffs have led to loss of skills and installers. A stable and predictable support scheme is needed.

Heat pumps: In areas not on the gas grid, heat pumps can provide an attractive means of heating, particularly in well-insulated buildings. As the proportion of renewable electricity increases, heat pumps will be a valuable means reducing carbon. Community-scale heat pumps combined with heat storage on a community scale could be an effective means of matching demand to variable levels of renewable electricity generation.

Combined heat and power: There are many situations where the waste heat from power stations can be used for industrial or domestic heating. New housing developments should install, or make provision for future installation of, heat distribution piping, so a network of district heating systems can be developed, as has happened on a large scale in many northern European countries.

Demand-reduction, waste-reduction and energy-efficiency: This report primarily concerns the provision of energy, not its use. However, we need to point out that there are absolutely enormous opportunities to revolutionise the latter, and that an energy revolution in the East will certainly incorporate doing so. Central is the common sense of not wasting energy. A pivotal example here is housing stock: proper insulation of housing is a no-brainer. Greens would roll it out nationally for free as part of our 'Green New Deal' proposals: on this front, Greens in Kirklees have already led the way. Furthermore, building standards need to be improved: here, Norwich Green Party has a strong record, with its councillors having influenced local planning policy so as to insist on less wasteful and more renewables-incorporating housing stock. In the medium term, all new housing should become 'passivhaus' standard or close to it. The passivhaus development currently being finished at Yarmouth is a striking example of what can be done. It is a shining example of the kind of approach that our energy revolution seeks. But whereas at present these Yarmouth passivhauses are almost unique in our Region, we want to see them becoming the norm.
Energy in the European Context

The important role that the European Union will play in energy developments in the East of England was made clear by the decision by Ed Davey to submit his plan for expansion of Hinckley Point to the EU Commission. He was bound to do this because any development that is to receive government subsidy needs to pass the state aid rules that are part of the EU single market. But to achieve consistency between the EU’s climate change and single-market policies it is necessary to allow renewable energy development to be exempted from state aid rules. In particular the state aid rules should ensure that energy sources that involve high risk (especially nuclear) or rely on fossil fuels shall not be eligible for state aid exemption.

The Green European Foundation recently produced a report exploring the interaction of state aid rules with the policy of decarbonisation of energy across the EU. They recommended that exemptions should be allowed for energy efficiency schemes that reduce demand for energy in the first place, and should ‘include a presumption of state aid compatibility for renewable energy support incentives which have been included as part of a least-cost, long-term national decarbonisation strategy.’ They also noted that the financial crisis has reduced the funding available for green energy schemes and that there will need to be a greater reliance on public funding and for public guarantee of new technologies that are perceived to be high risk. For this reason they concluded that: ‘State aid exemption should be given to public financial institutions and products with a clear low-carbon purpose (excluding nuclear energy and carbon capture and storage), and supporting measures within a low-carbon development plan.’

At the European scale there is also a huge opportunity to combine the energy transition with a response to economic crisis. The European Climate Foundation has undertaken a study to calculate what the economic loss would be if countries across the EU fail to deliver the energy efficiency measures that are necessary to meet carbon emission targets. As energy prices rise, the cost of not improving energy efficiency rises from €50bn a year by the end of this decade to as much as €300bn a year by the middle of the century (see the graphic):
By looking across to our neighbours in mainland Europe we can see again how weak and backward-looking UK energy policy is. What a contrast to Germany, where the government has completely abandoned nuclear and set itself the ambitious goal of doubling the renewable electricity generation to 35% by 2020 and achieving 80% renewable electricity generation by 2050. The graphic shows the success so far of this policy, with economic growth being matched by reductions in greenhouse gas emissions (from the Energiewende website: http://energytransition.de/).

[Note: to achieve the level of emissions reductions actually required, to return us to one-planet levels of footprint, GDP growth will probably need to stop altogether. This is simply a fact. Greens are alone in recognising it. This report is setting out how such a post-growth future is compatible with us having the energy we need to lead good lives; how the East can undertake an energy revolution that will set us up well for the 21st century.]
Germany’s Energy Villages

Between 2006 and 2011 430 new energy co-operatives were launched in Germany. An example is the village of Grossbardorf, in Bavaria, whose 928 inhabitants invested and raised through loans $19m. to develop photovoltaic roof systems, solar power plants, a biogas plant with a combined heat and power (CHP) unit and a district heating network. Before the installation of the district heating system, 80% of the heat in the village was supplied from fossil fuel in the form of heating oil. The village of Jühnde in Göttingen began its journey to becoming a ‘bio-energy village’ in 2001, and by 2004 70% of the population of the village were members of the co-operative. The village has installed an anaerobic digester that converts liquid manure and silage into methane gas that then powers a combined heat-and-power plant that generates enough energy to meet the demand by the whole village, as well as the co-generated heat heating homes and other buildings. Approximately 4,500,000 kWh of electricity is generated annually as part of a total energy output of 10,000,000 kWh, resulting in CO2 savings of 3,300 every year.


Denmark offers an object lesson in the ability of governments to facilitate renewable energy developments that are socially owned. This is the fastest route to rapid growth in renewable energy provision, since local communities which gain the benefit of installations are much less likely to oppose planning decisions. In the period of initial expansion some 80% of turbines were owned by families or co-operatives and 28% of Denmark’s energy was coming from renewable energy. Government invested heavily, offering a subsidy of 30% on all new wind power investment between 1980 and 1990. It offered a high and consistent rate of feed-in-tariff (FIT) representing 84% of the costs of generation from 1993 onwards: the higher rate of FIT being offered to community-owned turbines meant that 12% of the population now has a share in a wind-turbine.

Perhaps the greatest myth in the whole energy debate is that we cannot provide a secure electricity supply from renewable sources. We have already addressed this above, but the key to achieving this for good is through a highly interconnected Europe-wide energy grid, a so-called super-grid. This would give us access to a diverse mix of renewable resources, including northern European wind, Icelandic geothermal, southern European (and perhaps North African) solar and Scandinavian hydroelectric and pumped storage. By balancing these different forms of renewable electricity we could be secure without polluting the planet.
As well as some existing linking of grids between countries, a much stronger European electricity grid is being proposed, involving support from EU institutions. There have been a number of technical studies demonstrating the advantages of such a grid for making the best use of different types of renewable generation, and better balancing of supply and demand. Linked wind energy from the UK and other Northern countries, solar from further south and hydro power from Norway and elsewhere could allow a very high proportion of electricity from renewables. Some of the longer links would be high voltage DC, which has low power losses over long distances, and can be laid under the sea where appropriate.

To follow the example of our European neighbours, and to back initiatives in the East of England region, we need much stronger political support for renewable energy and for our dinosaur politicians to learn that they need to leave fossil fuels in the ground.

The recent announcement of a Community Energy Strategy illustrates the limited ambition of the Coalition Government. The £10 million kick-start fund for community generation projects in England is likely to fund no more than 70 community schemes across the whole of England between now and 2020: that’s just 10 a year. Contrast this with the fivefold increase in the number of renewable energy co-operatives in Germany between 2007 (101) and 2011 (586). The strategy also lacks any commitment to increase the amount paid to community groups through the feed-in tariff for generating their own renewable electricity.

We particularly want to focus job creation in the renewable sector on contributing to the regeneration of the region’s sometimes-decaying coastal towns. The ‘energy coast’ could revitalise Yarmouth and Lowestoft and more. But only if it receives serious investment (which is what Greens would give it), and only if it is focused on the energies of the future (i.e. renewables). Sizewell and Bradwell (and Underground Coal Gasification) should be no part of the Eastern ‘energy coast’. To see why, just imagine how it would be - how terrible it would be for the ‘energy coast’, let alone for our people living on it - if we had our very own home-grown Fukushima...
Recommendations

**European Union**: these goals would be directly pursued by a Green MEP in the East.

1. Urgently research the viability of a Europe-wide energy grid to ensure baseload electricity supply.
2. Exempt renewable energy development from state aid rules and ensure that energy sources that involve high risk (especially nuclear) or rely on fossil fuels should not be eligible for state aid exemption. Renewables should get tax breaks, not fracking.
3. Extend the bans on nuclear energy in Germany and on fracking in France so that they are followed across the whole EU by 2020.
4. Remove biofuels from renewable energy targets to be met by EU nation-states.
5. Add to the EU’s energy and climate targets a fuel poverty elimination target, to be achieved through action by member states to cut energy costs and carbon emissions through large-scale home insulation programmes. **THIS IS A KEY EUROPEAN ELECTION MANIFESTO PLEDGE, THIS YEAR, OF THE UK GREENS.**
6. EU planning barriers would be removed by streaming the planning process for renewable projects (Currently a project can be set up in 3-4 years, but the planning process is so slow that it is taking around 10 years to approve).
7. Single-market policies on energy development would be exempted from the EU’s ‘state aid’ rules.

**UK**

1. A long-term, high-rate feed-in tariff for all renewables, but with a higher-rate for community-owned installations.
2. The capital costs to start up renewable projects are funded by a tax on bankers’ bonuses. The running costs of these projects pay themselves through the free, clean energy they create.
3. The bankers’ bonus tax also funds grants for communities to set up their own micro-generation projects, where people own their energy supply.
4. A Robin Hood tax on financial transactions to fund insulation and micro generation in all social housing - new and old.
5. Marine energy generation and coastal erosion protection to work together, using the latest green technology.
6. The removal of Owen Paterson as Environment Secretary. Having a member of the Government who sees climate change as an economic opportunity rather than an environmental threat is obviously dangerous.
7. End the BBC’s policy of giving equal time to climate change deniers who base their views on right-wing prejudice rather than on any science.

**Local authorities**, especially here in the East: A Green MEP would seek, through networking and leadership, to help achieve these goals:

a. Establish revolving loan funds to support community renewable projects through the initial stages of development.
b. Adopt a pro-renewables approach in their local plans.
c. Build up the ‘energy coast’, but shift its emphasis to become renewables focussed: wind, wave and tidal.
Acknowledgements

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Rupert Read. March 2014.