

Climate of Opinion

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Commentary

When the American butterfly flaps its wings – Gulya Isyanova¹

Over the past year, the build-up to the US Presidential election has not only dominated the political and media debate in America, but has also become an increasingly important preoccupation for Europe. In abstract terms, this should seem odd. After all, why should the appointment of one country's leader inspire such a high level of interest around the world? However, the reality is that this is a contest where one man – either Senator Barack Obama or Senator John McCain – will become leader of the USA – the predominant global power and a country whose internal direction and policies have a major impact, whether directly or indirectly, on the rest of the world.

The hegemonic butterfly

America's transformation from a disparate group of European colonies to a powerful economic, political, cultural and military presence with a particularly strong sense of national identity has been extraordinary. Within the space of two centuries, America and Europe have exchanged roles, so that by the end of the Second World War a ravaged Europe had to rely on American financing for its civil, military and economic reconstruction.

This post-war reconstructive period consolidated America's position as the dominant power on the world stage for decades to come. Although it was involved in an ideological and military struggle with Soviet Union during the Cold War period, in the end it emerged as the default winner. This outcome has been reinforced by the appeal and spread of American values, popular culture (especially in film, television and music) and lifestyle aspirations.

America's position as a global giant ensures that its domestic policies, as well as the direction it takes in its international policy, have a major

impact on other countries. When this hegemonic butterfly flaps its wings, tornadoes may be experienced all over the world. The roots of the current global financial crisis, for example, lie in the domestic policies and practices of the US, and the US-led 'War on Terror' has engulfed a high number of countries, whether as allies or as enemies. This is not to say that the American 'butterfly effect' is all negative, of course, but – whether positive or negative – the particular policy direction and choices of the new US President will undoubtedly have an impact on us all. This is especially the case with respect to energy and environmental policy issues.

Sustainable energy and a sustainable planet

The domestic and international choices of the new US President in energy and environmental matters are of crucial relevance to Europe since both policy areas deal with matters of an inherently global nature. Energy – and specifically the production of and trade in fossil fuels – is a global commodity and subject to a global market, where oscillations in supply and demand affect the entire world economy. The environment – whether one subscribes to James Lovelock's 'Gaia' hypothesis or not – is a unitary global unit. The complex interrelations between the Earth's various elements – oceans, atmosphere, vegetation and so on – ensure that any local changes lead to global ramifications.

Let us consider these points in more detail.

□ Energy

Uniquely perhaps, the US is one of the world's top fossil fuel energy consumers *and* producers. As such, its actions and policies have a major impact on the amount of oil and gas available on the global markets, and subsequently on their prices. Will the next US President try to increase domestic production and pursue aggressive offshore drilling? Will he try to mitigate domestic demand with energy efficiency measures? Will he tackle oil price speculation?

□ Energy security

A major preoccupation for the leader of any country is energy security. Although the term is used to refer to different concepts, in the current period of heavy interdependence it can only mean having access to diversified supplies, both vertically (different energy types) and horizontally (from different geographical sources).

With respect to vertical security, will the new President increase domestic production in non-fossil fuel energy sectors, such as nuclear power and cleantech? How will these technologies be encouraged and bolstered?

With respect to horizontal security, what kind of friends and enemies will the new President make? How do the candidates view contentious energy partners such as Venezuela and Russia?

□ Climate change

As well as being one of the world's top fossil fuel consumers, the US is, as a result, also one of its top CO₂ emitters. Therefore with respect to climate change policy, it is absolutely crucial that the US is on board for any global initiative. Any global policy without American participation can only be ineffective.

For Europe in particular, there is an added element. With America's failure to ratify the Kyoto treaty in the 1990s, the EU was able to step into the global leadership vacuum in the climate change debate and take the policy lead. As we shall see elsewhere in this issue, both candidates have stated their intention to put the US back in the driving seat of global climate policy. To what extent will the EU be challenged,

and will the US succeed in getting back behind the wheel of the global climate initiative?

The US coming on board will also hopefully have a positive impact on the behaviour - and the willingness to participate - of other major polluters, especially the BRIC countries (Brazil, Russia, India and China). Will the US try to 'nudge' the BRICs or will it pursue their involvement with pressure?

Finally, the world will be watching how the US contends with other (especially contentious) policy areas which have troubled the energy and environmental policy domains, in particular nuclear power, biofuels and carbon capture and storage (CCS) technologies. Nuclear power continues to be politically divisive the world over, first-generation biofuels have played a damaging role in rising food prices and second-generation fuels are still in the development phase, and CCS technology is yet to be proven commercially. How will a new President deal with these issues?

Overview

The answers that the candidates are proposing will be presented in the following articles. In his policy brief, Paul Healy takes a closer look at the proposals of Senator Barack Obama, while Emma Gurrey provides an overview of the policy proposals of his rival Senator John McCain. Meanwhile, Paul Domjan considers whether the policies of either of the candidates are sufficient for dealing with the challenges that the US currently faces.

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Policy brief – Barack Obama's energy and environment policies – Paul Healy ¹

On 20 January 2009, the 44th President of the United States will be sworn into office. As well as being handed the keys to the White House, the new US President will be given the unenviable task of trying to lead his country's energy policy

and to re-engage the US in global attempts to create a more sustainable environment. In order to do this, Senator Barack Obama, the Democratic Presidential candidate, and Joe Biden, his running mate, have proposed a policy plan entitled *New Energy for America*, as well as a range of climate-related policies, which focus on using direct government intervention and funding to

change America's production and usage of energy.

New Energy for America

A major priority in Obama's energy plan is to diversify US energy supplies. In order to achieve this goal, he proposes that by 2025, 25% of energy consumed by the US should come from renewable sources, especially solar, wind, geothermal and nuclear power. Obama proposes to invest \$150 billion over 10 years, with the funds coming from the revenues generated by a proposed cap & trade carbon emissions scheme discussed below. Moreover, Obama not only promises to double government funding in green R&D, but also to pursue a long-term extension of related tax credits. This push for increased renewable energy is his answer to the problem of America's 'oil addiction' – an addiction which currently sees the US consuming a quarter of the planet's oil. It is problematic not only in terms of the carbon emissions that the US produces, but also with respect to energy security.

Obama believes that carbon capture and storage (CCS) technology also has a vital role to play in addressing oil dependency and climate change. He promises that he will instruct the Department of Energy to enter public-private partnerships to develop five commercial-scale coal-fired CCS plants, which he hopes will lead to an overall acceleration of private sector investment in CCS.

With the automobile playing such an intrinsic part in the American way of life, a particular source of interest for Obama is fuel efficiency and cleaner car fleets. To this end, he proposes a number of policies. First, he believes that by creating a National Low Carbon Fuel Standard (which he claims would speed up the introduction of low-carbon non-petroleum fuels, i.e. biofuels), by 2010 fuel suppliers can be encouraged to begin a reduction of the carbon content of their fuels by 5% within 5 years and 10% within 10 years. Obama would also like to see all new vehicles becoming Flexible Fuel Vehicles (FFVs), and promises to offer American consumers a \$7,000 tax credit for the purchase of low-carbon vehicles.

Obama believes that in making these changes the US would not only improve its energy security, but also see significant economic benefits, namely the creation of five million 'green' jobs based in the clean energy production sectors. These would be facilitated firstly by a number of new workforce training programmes, which would fulfil a dual role of accelerating the domestic development of green technologies and getting socially-vulnerable groups back into work. For example, he proposes a green energy-focused youth jobs programme and a counselling and job placement programme for war veterans (dubbed the 'Green Vet Initiative'). Secondly, the creation of these jobs will be encouraged by a \$1 billion-per-year programme which will seek to enable local manufacturers to modernise and convert their capacities to the manufacture of green technology. Obama believes that exporting these new technologies to rapidly-industrialising economies such as China will play a role in reversing the current trend of importing energy and subsequently help tackle the national security implications of oil from politically-unstable or unfriendly regions.

Obama claims to be realistic about the continuous need for oil in the US. He therefore accepts the need for limited offshore drilling and wants domestic oil companies, which have access to 68 million acres of undrilled land, to 'use it or lose it'. He promises to remove any infrastructural obstacles that prevent the drilling of oil and gas in areas such as Montana and Alaska. The construction of the Alaskan Natural Gas Pipeline is a priority in this effort, as it will have a daily capacity of 4 billion cubic feet of natural gas – almost 7% of current US gas consumption.

While much of this rhetoric focuses on the longer-term perspective, Obama has also offered a number of short-term policies that are aimed at helping US families in the current economic climate. The first of these is to provide an immediate rebate of \$500 per person to help with the rising prices of petrol and food, which would be paid for by a windfall tax on oil companies. He has also committed to enacting simple legislation that could help to bring down artificially high oil prices, by promising to tackle loopholes that exist in current regulations, and

which fuel excessive and unnecessary energy speculation. Finally, Obama wants to release light oil from the Strategic Petroleum Reserve, which he thinks would allow the country to deal with current economic pressures. This oil will be later replaced with cheaper, heavier crude.

US and climate change

Like his Republican opponent, Obama is committed to reducing carbon emissions in the US. He proposes a higher goal of an 80% reduction of 1990 levels by 2050, versus the 60% reduction proposed by McCain. Obama's strategy focuses on a market-based cap & trade system. Under the Obama plan all the allowances are sold at auction, with none of the free allocation of permits included in McCain's cap & trade proposals. Obama believes this will create a fair system that accounts for every tonne of emissions to be paid by polluters, as well as generating revenue for the development and deployment of clean energy as part of his \$150 billion renewables investment.

The Democrat's plan asserts that any drive towards a cleaner economy starts with a strong and determined example being set by the federal government. As a result, he has promised that all new federal buildings will be carbon neutral by 2025, in addition to ensuring that by 2010 the entire White House fleet of cars is converted to

plug-in hybrid vehicles and that half of all purchased federal government cars will be plug-ins or electric by 2012.

By re-engaging with the UN Framework Convention on Climate Change (UNFCCC), Obama promises to put the US on a path to restoring its leadership in tackling global climate change. This will be further supported by the creation of a Technology Transfer Programme which will be dedicated to exporting clean technologies to developing countries. In addition, he wants to create a Global Energy Forum comprised of the largest energy consuming nations (G8 countries plus Brazil, China, India, Mexico and South Africa) which would focus exclusively on global energy and environmental issues.

Senator Obama's energy and environment proposals, while touching on the same areas of those of Senator McCain, are more ambitious. Furthermore, while McCain emphasises market mechanisms and incentives to the private sector, Obama favours direct government intervention, often with federal money. It remains to be seen whether this more comprehensive, and costly, approach to energy and the environment will actually be implemented as the US tips into recession.

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Policy brief – John McCain's energy and environment policies – Emma Gurrey¹

Earlier this year, Senator John McCain, the Republican Presidential candidate, outlined his energy policy. Naming his package of proposals the *Lexington Project* – after the town where America declared its independence – McCain sent out a clear message that he sees energy as a key national security issue. Indeed, the goal of the *Lexington Project* is to achieve 'strategic energy independence' by 2025.

Senator McCain, not only wants to decrease imports from OPEC member states, but also wants to ensure that US energy needs are met domestically, with any imports coming from friendly states.

In line with the GOP's traditional focus on the economy and national security, albeit with a new 'green' emphasis, McCain's proposals also view energy policy as providing an economic opportunity. Policies that focus on harnessing the power of the market to create new jobs and promote new export opportunities dominate the *Lexington Project*.

The first element in McCain's energy policy is a commitment to expand domestic exploration, in particular offshore drilling, which has long been a divisive and partisan issue in Washington. Unlike his running mate Sarah Palin, however, he remains opposed to drilling in the Arctic National Wildlife Reserve (ANWR), saying "we called it a 'refuge' for a reason."² Although McCain does not believe the US can drill its way to energy independence, he nonetheless claims that drilling is crucial for bridging the gap between current oil dependency and future energy independence. Critics, however, point out that it will take years for offshore drilling to have an impact.³

Another key policy focus of the *Lexington Project* is nuclear power. Although McCain has criticised the subsidy plans of his rival Democratic Presidential candidate Senator Barack Obama, in the area of clean energy sources, McCain has singled out nuclear power as requiring federal assistance. He has long been a proponent of nuclear power stating that: "It is safe, it is proven, and it is essential to America's energy future".⁴ A centrepiece of the McCain campaign, therefore, is a commitment to build 45 new nuclear reactors by 2030, and eventually 100 new reactors altogether. In keeping with his belief that economic opportunity is a more compelling narrative than climate change, the McCain campaign claims nuclear power will create thousands of new jobs for Americans. Moreover, there are indications that the majority of the public agrees with McCain's view of nuclear power. In a recent poll, for example, 56% supported building new nuclear power plants.⁵

McCain has also singled out 'clean coal', another energy source which he believes deserves federal funding. The *Lexington Project* aims to invest \$2 billion a year in carbon capture and storage (CCS), a technology that could make coal 'green'. McCain believes that not only will CCS technology play a key role in allowing the US to use a domestically-abundant but dirty energy source in the cleanest possible way (thereby adding to domestic capability as well as decreasing the environmental impact of coal use), but would provide an excellent economic opportunity. Emerging economies such as China, for example, already generate the majority of their electricity from coal, and this use is only set

to grow. The potential markets for exporting CCS technology are therefore immense.

However, McCain's interest in clean coal appears to be an exception, not the rule. Although he has professed admiration for wind and solar power, he does not offer the expensive tax credits offered to CCS. He promises to tidy and simplify the current patchwork of credits, but McCain has little else to recommend – claiming that "government must be an ally but not an arbiter".

More in tune with his market-based solutions is the proposal to establish a permanent tax credit equal to 10% of wages on Research and Development (R&D). McCain believes that this will entrench innovation and allow the market to choose the most deserving technologies.

McCain has also stated his commitment to end ethanol subsidies and tariffs, a policy that lost him the Iowa caucus back in January. This policy is in direct confrontation with those pursued by President Bush, as well as much of the Republican Party and Senator Obama. McCain argues that ethanol subsidies only distort the market and prevent the 'greenest' options from emerging. At the same time, McCain is overwhelmingly optimistic about second-generation biofuels and has called on manufacturers to speed up the transition to Flexible Fuel Vehicles (FFVs).

McCain's free market ethos extends to transport, although some policies do appear to contain a populist tilt. A fondness for the tax credit mechanism emerges once more, and \$5,000 is offered to every consumer who buys a zero-emissions car. Money will also be offered to those who buy a low-emissions car – the more efficient the vehicle is, the higher the tax credit will be. McCain will try to stimulate innovation by establishing a \$300 million prize fund, available to the first manufacturer who can build a car battery that leapfrogs current hybrids.

America's domestic car industry has struggled recently and McCain supports a number of policies to help US carmakers. The first is a refusal to tighten Corporate Average Fuel

Economy (CAFE) standards; McCain instead proposes to properly enforce current standards. This could mean that domestic carmakers may face fines if their fleets do not meet these standards, something that has not happened since the CAFE system began to operate in 1975. Furthermore, McCain supports loans of \$25 billion to domestic manufacturers, designed to help them retool plants in order to start building fuel efficient cars.⁶

One proposal designed for popular appeal is the plan to suspend petrol tax (\$0.18 per gallon) during the peak summer months. However, this measure is unlikely to save American consumers a great deal of money. Such a move might also encourage consumption, which is incongruous with McCain's other policies.

On issues concerning the environment McCain has a record of going against the policies of the incumbent President and of his own party. He first introduced a bill capping carbon emissions with Senator Joe Lieberman in 2003, and introduced similar bills in 2005, 2007 and 2008. His current plans focus on a domestic cap & trade scheme that aims to reduce emissions by 60% of their 1990 levels by 2050. McCain argues that the system will make alternative energies such as wind and solar more competitive. The reduction rates are less ambitious than Senator Obama's. Moreover, in contrast to the Obama plan, McCain will also initially allocate permits instead of auctioning them. Small businesses will be entirely exempt from cap & trade, but the major emitters (for example, transport and energy companies) will be included.

Finally, McCain is adamant that the US needs to play a significant role in the United Nations Framework Convention on Climate Change (UNFCCC) negotiations, especially at the Copenhagen conference taking place in June 2009. At the same time, he is equally adamant that no state can shrink from its global responsibilities. Thus, he believes that China and India need to sign up as fully-fledged participants

– as a pre-requisite for US involvement. Incentives could be provided to ensure their participation but there has been no elaboration on what these might be.⁷ However, McCain acknowledges that the opportunity to create jobs and become a world leader in green technologies provides a strong case for unilateral action on climate change.

Senator John McCain's energy and environment policies are not as ambitious as Senator Barack Obama's. Will this make them more attainable? In the midst of a global economic downturn and an enormous government deficit, both the public and Congress are less likely to be in favour of sweeping changes that will initially cost a great deal of money. The proposals themselves, aside from a number of gimmicky measures such as the petrol tax holiday, by and large, harness the power of market mechanisms.

For further details of Senator McCain's energy and environment policies, please see: <http://www.johnmccain.com/Informing/Issues/17671aa4-2fe8-4008-859f-0ef1468e96f4.htm> and <http://www.johnmccain.com/Informing/Issues/dal51alc-733a-4dc1-9cd3-f9ca5caba1de.htm>

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²<http://www.johnmccain.com/Informing/News/Speeches/Read.aspx?guid=d3ee7e45-7043-4623-ab99-ffbdeb7a431d> (accessed September 2008)

³<http://www.time.com/time/business/article/0,8599,1815884,00.html> (accessed September 2008)

⁴<http://www.johnmccain.com/Informing/News/Speeches/1b708e23-5496-42a3-8771-aec271bf823e.htm> (accessed September 2008)

⁵<http://www.quinnipiac.edu/x1295.xml?ReleaseID=1205> (accessed September 2008)

⁶<http://online.wsj.com/article/SB121944446619964841.html> (accessed September 2008)

⁷<http://www.johnmccain.com/Informing/News/PressReleases/1f8b2869-689e-4e79-bfb4-c20cf1a47297.htm> (accessed September 2008)

The next President's energy policy: Will it meet the challenges of the future? – Paul Domjan¹

In the past few months Senators Barack Obama and John McCain have made a number of policy proposals relating to energy and environmental issues. However, will the proposed policies of either of these candidates be able to meet the various challenges that the US is bound to encounter in the future? Although both candidates make some progressive and foresighted proposals, there are also a number of policy and rationale gaps.

'Energy independence' and other fallacies

The energy policies of both candidates are based on a dual fallacy – that the US can achieve 'energy independence' and that it can do so by importing less foreign oil, especially from the Middle East and Venezuela. While some may be rejoicing at the prospect of 'energy independence', the more sober reader should ask whether the candidates' definition of 'energy independence' is correct and what might actually happen if they achieve their shared goal of fewer imports.

On the basis of their definition, the US is already more than 80% energy-independent, however, the entire US oil bill still goes up when events in the Middle East and Venezuela, not to mention Nigeria, Russia and others, create uncertainty in the oil markets and increase the security premium in the oil price. This is because wherever US oil comes from, it is still part of a global energy market where price rises affect all market participants, regardless of where they buy their oil.

Moreover, concentrating on the Middle East and Venezuela is a purely political gambit and just does not add up. First, the US currently imports only half of the oil it uses, and of this half, only one third comes from the Middle East and Venezuela – in other words, only one sixth of the crude consumed by the US. Second, both of the candidates make a rather far-fetched assumption that any reduction in oil imports could be precisely targeted at Middle Eastern and Venezuelan imports. Third, even if this already-small proportion of Middle-Eastern/Venezuelan

crude were to be decreased via proposed measures such as the increased use of plug-in hybrids and by efficiency improvements, this decrease would still only amount to the energy savings that the US is expected to make in the next ten years.²

The reality is that the US cannot make itself immune to the vagaries of the international oil markets. It must therefore focus on reducing the importance of oil in the economy instead. This means improving energy efficiency, encouraging alternative sources of energy and improving the elasticity of energy demand. 'Energy independence' will only come when the US economy is independent of the fluctuating cost of energy, not when the US is independent of imports from certain suppliers.

Achieving this economic resilience requires three things: (1) greater energy efficiency, (2) alternative sources of energy, and (3) reducing the impact of energy price rises on the economy by increasing the elasticity of energy demand. The candidates seem to have the right idea about energy efficiency and alternative energy. While their partisan emphases are different, the broad thrusts of their policies are similar. McCain accepts the need to improve fuel economy, and Obama accepts the need to expand domestic production and build new nuclear plants.

Where they are both weak, however, is on implementing technology that would allow the market to improve demand elasticity. In essence, the US needs to move to a domestic energy system that is much more able to reduce the quantity of energy used in real time as the price of energy rises. A smart grid, for example, enables this by signalling to appliances that electricity is in short supply and that they should shut down temporarily, and by signalling to plug-in hybrid cars that they should stop charging and release electricity back to the power grid.³ Obama has made some remarks about the smart grid, but generally speaking, both of the candidates fail to give sufficient thought and emphasis to demand elasticity.

Similarly, while they both support substantial cuts in US carbon emissions by 2050 and a much larger role for the US in global climate

negotiations, neither of them has tackled two key issues in climate policy. First, both have failed to explain exactly how they will start serious emissions reductions now to prevent the kinds of developments we see in the Stockholm Network's own research in its *Agree & Ignore* scenario.⁴ Second, while both of them mention the need for active involvement from the other major economies (especially China), and indicate that technology transfer might play a role as an incentive to these economies, neither of them suggests a proper policy framework to secure this involvement.

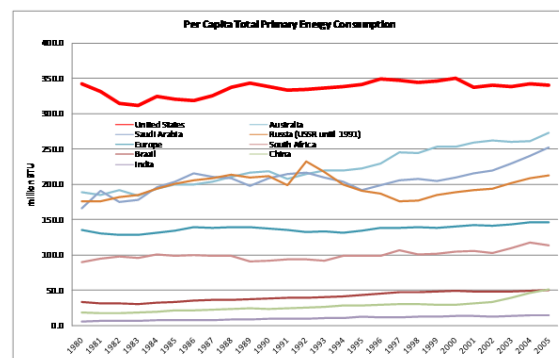
Energy and the financial crisis

The danger of failed energy policy (in other words, the failure to tackle a number of structural problems in the global energy market) has been dramatically illustrated by the financial crisis. While the seeds of the financial crisis had nothing to do with energy, rising energy prices nonetheless played a major role in reducing household incomes, thereby contributing to mortgage defaults. The unfolding of the financial crisis itself has shown the US the importance of developing a common understanding of shared international challenges and taking coordinated action to manage markets, whether financial or energy. While energy policy works over a much longer time-frame, thereby making this sort of international coordination harder, it does require the same sort of coordinated policy approach.

Worryingly, however, the current recession may lead the new President to prioritise short-term economic priorities over long-term energy goals and policies (which either have a substantial price tag for the federal government or that could be seen to pose an economic cost at a time of hardship). This would be unfortunate. The continuation of the structural problems in the energy market that produced record oil prices earlier this year, combined with the cost of moving to low-carbon energy, would mean that energy will remain expensive.

As the figure below shows, the US's per capita energy consumption (in red) is massively higher than that of the rest of the world, even oil-rich Saudi Arabia. The rise in oil prices from an

average price of \$17 per barrel in 1999 to a peak of nearly \$150 per barrel earlier this year has been driven by two things – short-term political risk and the doubling of Chinese per capita consumption. Were China to achieve per capita energy consumption on a par with South Africa, let alone with Europe, Australia or the US, this price pressure would only strengthen in the long term. This price pressure is, of course, exacerbated further by the possibility of India beginning to take a Chinese growth path.



In light of this, if the US does not make foresighted policy decisions today to dramatically change its per capita energy consumption, energy costs will become a structural impediment to US growth in the future. Obama and McCain rhetorically recognise the importance of energy as a component of economic growth and have policies to encourage energy sector employment, but will they convert this rhetorical commitment into action in areas that have short-term costs in order for the US is to make the transition to a structurally less energy-intensive economy?

The tensions of energy and climate security

Not only is reducing energy intensity necessary to secure the US economy, it is also key to addressing climate change. Both candidates have advocated a stronger US approach to climate change, and the discussion of energy in the debates between the candidates shows that they see climate security and energy security as equally-important goals. Their concern about climate makes the case for not sidelining the issue and delaying action on energy measures in the

face of the short-term pressures of the financial crisis even stronger.

If the US acts now and embraces long-term solutions to energy and climate, there are many policy options that are mutually supporting. Improved energy efficiency and domestic alternative energy, including nuclear, both avoid carbon emissions and reduce the US's economic reliance on oil and gas. Carbon capture and storage (CCS) technology would enable the use of domestic coal resources without emitting substantial amounts of carbon into the atmosphere. Research and development is crucial to CCS deployment and will help expand alternative energy more broadly. Somewhat more controversially, new domestic conventional oil and gas production (which both candidates support), while still part of the carbon economy, can be a climate benefit if it is in lieu of carbon-intensive unconventional production, like the Canadian oil sands.

However, all of these policy options have long lead times. The longer the US waits before taking serious action on energy and climate, the more likely it is that it will be forced into short-term carbon-intensive solutions – such as coal without CCS – in the future. Similarly, a crisis response to climate change in the future would require immediate use of the least carbon-intensive energy options available, whether imported or domestic, and this could potentially lead to

problems such as nuclear proliferation, with the world rushing to build nuclear reactors at the last minute.

The new president will take office with the US at an energy crossroads. He must have the commitment and foresight to make difficult decisions today to avoid having to backtrack in the future once the US has already wandered onto the wrong path.

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² This is based on the average energy efficiency improvements plotted for the OECD region by the International Energy Agency.

³ A smart grid uses robust two-way communications, advanced sensors and distributed computers to improve the efficiency and reliability of power delivery and use. For more information please see: <http://www.oe.energy.gov/smartgrid.htm>

⁴ The SN Carbon Scenarios describe three possible futures arising from different global climate change policies being implemented post-Kyoto. The scenario with the highest long-term temperature rises is called Agree & Ignore because it describes a world in which politicians make agreements and long-term commitments, but then ignore the short-term implementation of these policies, leading to backsliding and implementation failures. For further information please see: <http://www.stockholm-network.org/Conferences-and-Programmes/Energy-and-Environment/carbonscenarios>

Microclimates – Top stories in energy and environment

EU 'wrong' to prioritise energy diversification

High-level European and Russian officials locked horns over how the EU should deal with the looming global energy crunch at a debate in Brussels, with Russian Deputy Head of Mission to the EU Alexander Krestyanov spurning allegations that his country used energy as a political weapon.

Insisting that Moscow was Europe's ally in its search for energy security, Krestyanov said the

EU was "wrong" to "reduce the issue of energy security to just the issue of energy supply". Much will also depend on the exploration of new territories for oil and gas and the development of new technologies, which "can only be done through joint efforts," he stressed.

<http://tinyurl.com/677smf>

Czech cabinet approves 2007 report on environment

The Czech government has approved the 2007 report on the environment according to which air pollution is the country's main problem.

Environment Minister Martin Bursik told journalists that despite the increasing volume of traffic emissions and high emission levels from the power industry and others, the state of the environment is improving again following stagnation in 2005 and 2006. Although only 6.3% of Czech territory had low quality air in 2007 (while it had been 29% in 2006), one-third of Czechs live in the affected territory. Moreover, the improvement was partly a result of weather conditions.

After a steep decline in the early 1990s, greenhouse gas emissions have gone up in recent years. Currently they are among the highest in Europe, according to the report.
<http://tinyurl.com/697h59>

Ed Miliband to head up new UK department for energy and climate change

Gordon Brown has created a new government Department for Energy and Climate Change in his latest cabinet reshuffle, with former cabinet office minister Ed Miliband taking on the role of Secretary of State.

The creation of the Department for Energy and Climate Change will bring energy and climate change policy under the same roof for the first time. Previously, the responsibility for climate change was divided between the Department for Business, Enterprise and Regulatory Reform (BERR), which managed the nation's energy strategy, and the Department for Environment, Food and Rural Affairs (Defra), which was in charge of reducing greenhouse gases and promoting energy efficiency.
<http://tinyurl.com/5bxgot>

EU sticks to greenhouse goals despite financial fears

Leaders of the European Union have pledged they will stick to a pricey plan for deep cuts in greenhouse gas emissions, saying the recent meltdown of financial markets must not deter efforts to combat global warming.

After presiding at a two-day EU summit, French President Nicolas Sarkozy said that despite some misgivings about the cost, "climate change is so important that we cannot use the financial and economic crisis as a pretext for dropping it."
<http://tinyurl.com/6ra69r>

Nuclear reactors may supply a fifth of global electricity by 2050

Nuclear reactors may produce more than a fifth of global electricity by 2050 as demand for power rises in countries such as China and India, according to a report by the OECD. At the higher end of forecasts, nuclear power output would climb to 22% of the total in 2050 from the current 16%, according to the study published by the OECD's Nuclear Energy Agency.
<http://tinyurl.com/5azx7d>

Industry slams EU hydrogen initiative

The European Commission has launched a long-term public-private research partnership aimed at accelerating the commercialisation of eco-friendly hydrogen and fuel cell technologies. Over the next six years, the EU 'Fuel cells and Hydrogen' joint technology initiative (JTI) is to receive €470 million from the EU's current research budget (known as Framework Programme Seven, or FP7, which runs until 2013). This figure has to be at least matched by private sector contributions. But industry leaders immediately slammed the initiative's lack of ambition and accused the scheme of duplicating the European Hydrogen and Fuel Cell Technology Platform, which the Commission launched in 2004.
<http://tinyurl.com/69o5an>

Baltic Region Steps up Energy Efforts

The European Commission and leaders of seven EU Member States which border the Baltic Sea have agreed to integrate their energy markets and to cooperate to secure energy supplies. The proposal, called the Baltic Interconnection Plan, is to be put in place by 2010. The aim is to ensure that the electricity grids of all seven states –

Denmark, Estonia, Finland, Latvia, Lithuania, Poland and Sweden – are connected and to coordinate efforts to diversify gas sources.

<http://tinyurl.com/5zytvp>

EU to ban high-energy light bulbs

High-energy light bulbs are to be banned in Europe from the start of 2010, EU energy ministers have agreed. Incandescent bulbs - the conventional version with a filament - will be replaced with low-energy fluorescent bulbs as part of the EU's drive for energy efficiency. The decision comes just days before the lifting of EU import duties on energy-saving lamps from China, which will help bring down the price of the most efficient light bulbs.

<http://tinyurl.com/5aen5k>

Deal reached over foreign energy investors

European energy ministers have signed an agreement intended to nudge the EU towards a single energy market. The reform's centrepiece is an agreement allowing Member States to open their energy markets to foreign investment. Foreign energy providers will be prevented from investing significant amounts in EU states unless there is a guarantee that EU companies can invest in that state's energy sector. The proposal is widely seen as an attempt to curb the influence of Russia's Gazprom.

<http://tinyurl.com/5kb4cp>

European Auto Makers ask for Low Interest Loans

EU automakers will seek €40 billion in low interest loans to help in the transition to greener cars. The request comes just one week after US domestic manufacturers secured loans of \$25bn dollars (€34bn) from the American government.

<http://tinyurl.com/6evvcf>

Lithuania's Ignalina Plant Likely to Close

A referendum to postpone the closure of Lithuania's Ignalina nuclear power plant failed due to insufficient voter turnout. Only 47.6% of Lithuanians voted in the referendum (failing to reach the required 50% minimum), even though of those who voted, 88.7% voted to keep the plant open.

Lithuania decommissioned the plant in 2004 as part of the deal to join the EU, but the replacement (due to be built as part of a \$3-4 billion joint project with Poland, Estonia and Latvia) is unlikely to be ready before 2015.

With 70% of Lithuania's electricity coming from the plant and with no replacement in place, Lithuania will in all likelihood have to increase its dependence on Russia.

<http://tinyurl.com/5omywp>