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The United States has since 2008 managed to decrease its greenhouse gas emissions, due to the combined effects of an increased use of shale gas, the economic downturn and subsequent slow recovery, and stimulus investments in the energy sector. Climate change-related topics, however, have become increasingly politicized, with Congress deadlocked on any comprehensive climate change and energy legislation. As a result, the Obama administration is resorting to its own powers to influence cli-

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mate and energy policy, mainly through increased investment and regulations. Individual US states have also been increasingly active by supporting renewable energy technologies, energy efficiency, energy portfolio standards and even by adopting their own or regional market-based emissions trading system. This paper reviews the various measures taken at the federal and state level to protect the environment and fight climate change, with a view to identifying where leadership in this particular policy domain is exercised in the US.

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# Adjustments of US Energy Policy on Climate Change: Trends at the Federal and State Level

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United States

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## Introduction

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The first ten years of the new millennium have seen a tremendous shift in the perception of environment and energy in the US. In the past decade, much more attention has been paid to climate change than ever before, but there has also been an increase in the politicisation of the climate change agenda. Although energy has received a lot of attention, energy policy -or some sort of concept of it- has, according to many commentators, simply not been present (Reardon 2004). Europe particularly has been generally dissatisfied with the lack of strong political leadership on energy and the environment in the United States. The US has been trying to solve its energy problems since the oil embargoes of the late 1960s and 1970s, which forced the country to face the fact that its consumption of energy was greater than its ability to produce. Even though the dramatic situation of the oil embargoes led to the emergence of various technological innovations, as well as the spread of renewable energy, forty years later the main problem remains unresolved.

In this article, I will try to answer the question of whether the US federal government provides political leadership in relation to policy on climate change, or whether the states themselves are increasingly playing the leading role. In doing so, the article seeks to illustrate how the federal, state and regional levels of action respond to climate change, as well as to highlight the difficulties in transposing one level of action onto another one.

Historically, the American energy sector has to a large degree been defined by an abundance of domestic resources. Fossil fuels were extremely cheap for decades thanks to large domestic deposits of coal and oil, as well as favourable economic circumstances. Yet the country's demand for energy was so great that by the early 1970s local levels of oil production were insufficient and the country had to begin importing. By 2005, imported oil provided for over 50 percent of the total level of consumption (EIA 2012b).

Over the last decade energy prices have consistently increased and petroleum prices in particular have skyrocketed. Even though the onset of the economic crisis in 2008 stalled these increases, in 2009 prices

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resumed their upward trend and the limited economic recovery made many businesses and households pay much closer attention to their expenses for electricity, heating and petrol for their cars.

The fact that petrol has become so expensive has led to both increased levels of investment in technologies and greater focus on technological innovation. This has made it increasingly possible and profitable to extract conventional oil under conditions that were deemed unfeasible only a few years ago, such as drilling oil and gas from shale deposits.

Thanks to the shale gas revolution, US imports of natural gas have decreased over the last few years and in 2012 reached minimal levels (EIA 2013b). Furthermore, liquefied natural gas (LNG) has the potential to become an important export commodity for the US, providing a new fuel source for import dependent economies. For example, much of Asia and Europe are still to a great extent dependent on imports from Russia via pipelines, so US-sourced LNG provides a potential means of diversification.

Thanks to reduced consumption, along with new indigenous sources of fossil fuels, the US has managed to domestically produce a larger share of its daily requirement and therefore to decrease its reliance on imports of foreign oil. The natural gas bonanza has also led to the closing down of many old coal-fired power plants and the construction of new natural gas power plants. Natural gas produces approximately half the amount of carbon dioxide produced by coal and two thirds the amount produced by petroleum.<sup>1</sup> The widespread use of natural gas, along with increased focus on renewable energy and the reduction in energy consumption due to the economic crisis, have contributed to a reduction in the volume of greenhouse gas emissions (EPA 2013). Though a decline in these emissions in the United States has been greeted with some cautious optimism among members of the international community, the decline is for the most part due to a number of factors, namely the economic situation, changing consumer behaviour, state activities and the influx of natural gas.

However, at the federal level, the process of adoption of policy measures which would significantly reduce greenhouse gas emissions has become extremely difficult, as has the achievement of political consensus on environmental issues which would allow comprehensive and ambitious energy reforms. The government must balance economic, environmental and security concerns; pleasing voters on all these fronts has been very difficult to reconcile with energy reform.

## 1. Power of Market or Federal Incentives

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The emergence of energy as a historically important topic in the US dates back to the 1970s. At this time, American society became more concerned with the environment, as well as with the effects of pollution on human health. In addition, the oil crisis in 1973 pushed energy security to the fore as a major concern. As a result, the last forty years have been marked by political proclamations that the US needed to significantly decrease its dependence on oil, especially from foreign sources. The argument was that these supplies often came from countries which were hostile to the US, countries which were politically unstable or located in an unstable region -or all of the above. These factors threatened access to supplies as well as generating an unstable pricing environment.

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<sup>1</sup> Various types of coal emit approx. 210 pounds of CO<sub>2</sub> per million Btu, diesel and home heating fuel 161.3, gasoline 157.2 and natural gas 117 pounds of CO<sub>2</sub> per million Btu (EIA 2013a).

However, although energy security was such an important issue in strategic terms, the energy sector in the US has traditionally been significantly market-driven. The federal and state governments provided basic regulations and tax incentives, but the development of technologies and the choice of projects were for the most part left to private companies. In contrast, most European countries perceive energy as a strategic sector, and governments often keep majority shares in energy businesses or own strategic infrastructure. Over the past forty years successive US governments have chosen to adopt seemingly minimal intervention, but even relatively small interventions have been quite effective. The biggest problem turned out to be the inconsistency of these interventions – inconsistency in the support for renewable energy and frequent changes to the tax credit system, as well as inconsistency in federal funding for research and development in the energy field (Laird and Stefes 2009).

In the 1970s, the United States and Europe began to take quite different approaches to renewable sources. Whereas European countries often chose to introduce feed-in tariffs, the United States opted for tax credits on renewable energy production. The incentives helped the fast emergence of the use of wind energy in the 1970s and 1980s. However, after the embargo was lifted and oil prices returned to a relatively low level in the US, support for renewable energy ceased.

In comparison, European countries have generally considered renewable energy policy to be more significant and have supported it in a much more consistent way. As a result, the EU-27 produces 6.7 percent of its total electricity from renewable energy sources, in comparison to the US where the share of electricity from renewable energy is only about 2.7 percent (Schmidt and Haifly 2012). The United States has also been overtaken by China in terms of levels of investments in renewable energy, a fact acknowledged by President Barack Obama in his 2013 State of the Union address (Obama 2013).

The topic of energy has also been closely linked to the rise and fall of oil prices. Americans commute to work in large numbers: of 138 million Americans of working age, in 2010 over 86 percent used a car to travel to work, and the average occupancy of one of these cars was only 1.07.<sup>2</sup> The United States has kept the rate of taxation on petrol very low in comparison with the high excise rates imposed on petroleum by most European countries, these taxes in some cases accounting for as much as half of the price.

The case of nuclear energy is an interesting one. The US was a leader in the field of energy research and pioneered the use of nuclear energy. However, largely because of the Three Mile Island accident in 1979, many projects for new reactors were completely abandoned. Nuclear energy became a dangerous investment, since financial returns on a nuclear power plant take decades and the operating costs are high. Only the soaring energy prices of the 2000s prompted a change in investors' perception of nuclear energy. However, the present shaky economic conditions and the emergence of natural gas are rather unfavourable developments in relation to the further expansion of the US nuclear energy sector. Only a handful of nuclear reactors will be built in the coming years, despite support from the federal government. The earthquake and subsequent tsunami that hit northern Japan in 2011, causing among other things a major nuclear disaster at the Fukushima power plant, reduced public trust (though not dramatically – see Rasmussen Reports 2012) in nuclear technology. Regulators are now more vigilant in their observation of the operational standards at existing facilities. Since the disaster at Fukushima, nuclear energy has become a politically sensitive issue in Europe, where several governments are in the process of deciding whether their countries need nuclear industry and whether it is a desirable technology or not.

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2 US Census Bureau, "Commuting Characteristics by Sex, 3 Year Estimates (S0801)" in *2009-2011 American Community Survey*, [http://factfinder2.census.gov/bkmk/table/1.0/en/ACS/11\\_3YR/S0801/0100000US](http://factfinder2.census.gov/bkmk/table/1.0/en/ACS/11_3YR/S0801/0100000US)

In the wake of the unprecedented 2008 economic crisis, US President Obama and his new administration had no other option but to focus on stabilising the American economy. This happened mainly through the so-called “stimulus” (US 2009b) and massive subsidies. Energy became one of the main fields of intervention, with federal investment in clean energy technology more than tripling in comparison to previous years (Jenkins et al. 2012). The stimulus funding injected massive amounts of money into infrastructure in order to revive the economy, and renewable energy resources, energy efficiency programmes and biofuels were among the sectors that were targeted. The creation of new “green jobs” in order to jump-start the economy along the way became something of a mantra for the new administration.

The real effect of these measures is hard to determine; similarly it is almost impossible to count the number of “green jobs” created. Different government agencies provide conflicting figures, as do various advocacy groups, and as a result, the estimated impact on green job creation varies from negligible to considerable (Yehle 2011). Yet, the stimulus bill has had a major impact on renewable sources of energy. It included substantial direct spending on infrastructure, tax credits, deductions and loans, as well as on loan guarantees. The stimulus funding granted the energy sector unprecedented public investment, comparable only to that of the New Deal era. Investment was made in infrastructure, in means of electric power transmission (which in the US is often obsolete or in rather bad condition, leading to energy waste), and in research on carbon capture and sequestration. Projects aiming to transform federal buildings into low-carbon buildings and to create an energy-efficient car-fleet for federal agencies are other examples of stimulus investment.

Even though federal investment has been large-scale, a crucial problem with such an incentive remains: it is time-limited. Many of the programmes funded by the fiscal stimulus are destined to expire within a few years. Many of them will be automatically terminated unless Congress specifically renews them. The same goes for tax credits, deductions and loan guarantees for renewable energy, all of which have to be renewed periodically. Energy incentives have thus become part of the budgetary diplomacy between the president and Congress, and many programmes may fall victim to compromise. In this respect, inconsistency and uncertainty are very harmful and off-putting to investors.

## 2. Political Deadlock

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When President George W. Bush was sworn into office in 2001, he refused to submit the Kyoto Protocol, which imposed restrictions on greenhouse gas emissions, to Congress for ratification. One of the reasons for his decision was the fear of giving economic advantage to developing competitors, mainly China and India, since the Kyoto Protocol targets applied only to developed countries. As a result, the biggest accomplishment of the Kyoto Protocol in the US was probably that of raising public awareness of the issue of climate change (Purvis 2012), although it also highlighted the potential trade-off between environmental protection and economic activity.

The two terms of the Bush presidency were marked by the onset of mainstream production of gas from shale, the so-called “shale revolution”. Shale gas really does constitute a revolution in a way. Not only does it give the country a comparably cheap fuel, but also a relatively clean alternative to both coal and petrol.

The Bush era did not serve to introduce any groundbreaking change in energy policy, but for the most part concentrated on increasing domestic production of fossil fuels and their alternatives, such as biofuels and ethanol, rather than emphasising the importance of reducing energy consumption. During President Bush's second term, two reform energy bills (US 2005 and 2007) were adopted. The problem with these two pieces of legislation was that neither gave clear direction to the sector. What these two laws did achieve was a sense of bipartisanship on energy, since they found wide support in both chambers of the US Congress, particularly the Energy Independence and Security Act. This sense of bipartisanship was lost during the first term of the Obama presidency. The Bush years also brought changes in the sourcing of US oil imports, with a marked shift towards politically friendly countries. Canada became the largest crude oil supplier to the US.<sup>3</sup>

Energy policies and climate change as political issues were openly raised and discussed during the presidential election in 2008. What gave the topic a more prominent place in the debate was the high price of oil, which had risen sharply in 2007 and was hitting historical records in 2008. Right before the election, in September 2008, the economic crisis hit with its full force. Still a presidential candidate, Barack Obama unveiled a plan called *New Energy for America* which involved an emission cap-and-trade scheme to trade emission in excess, as well as measures to increase energy efficiency (Obama 2008).

The first years of the new government were concerned mainly with plans regarding how to revive the economy and regulate the financial system effectively. Thus, in 2010, the federal government had to give up any serious efforts to introduce comprehensive energy policy legislation. In the Spring of 2009, a democratic legislative proposal for the American Clean Energy and Security Act (US 2009a) was introduced in the House of Representatives.<sup>4</sup> The bill would create a cap-and-trade scheme, which at the time was one of the Obama administration's cornerstones of energy and environmental policy. The bill was approved in the House of Representatives but was defeated in the Senate, which decided not to take any action on such a major energy bill before the approaching midterm elections. Interestingly, when the president was trying to lobby in favour of the bill, it was labelled as yet another piece of legislation that would promote job creation and support the economy. At that point, there was already a strong partisan division on energy reform and in particular on the idea of cap-and-trade.

The failure of cap-and-trade legislation meant the end of any realistic possibility that Congress would approve any major legislation on energy and the environment. The year 2012 was mostly devoted to the approaching presidential election and campaign, with no space for divisive legislative proposals such as a new energy bill. The cap-and-trade scheme not only became a much-politicised topic, with almost no Republican support, but also had the potential to increase consumer prices of energy and put extra pressure on industry and the business sector. This combination of factors made it virtually impossible to uphold the proposal ahead of the election, especially since the incumbent president had little to gain from advocating a rather unpopular measure, such as the cap-and-trade scheme, in a very close election where both Obama and Romney were seen to have almost equal chances of winning.

President Obama had made energy such an important part of his agenda in his first term however that complete resignation from any achievements in that sector could have been harmful as well. He then advanced a much more modest proposal than the cap-and-trade scheme. It came in the form of the Clean Energy Standard Act (US 2012). This proposal would require all large energy producers to add renewable or clean energy to their

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3 In 2001, the monthly import of oil from Canada was around 60 million barrels, whereas in 2012, it was 93 million (EIA 2013c).

4 Introduced by Democrats Henry Waxman of California and Edward Markey of Massachusetts.

portfolio (the legislation would define a specific percentage of clean and renewable energy in the portfolio, the percentage would increase every year and this would come fully into effect by 2035). This law would lead to a gradual increase in energy prices; according to projections by the US Energy Information Administration, energy prices would peak around 2025 (EIA 2012a). While opponents of the legislation point to consumer price increases as one source of justifiable criticism, environmentalists are not completely satisfied either because natural gas was to be regarded as a clean source of energy. Another questionable provision is that the legislation would apply only to energy producers that supply the grid with at least a million megawatt hours per year, exempting smaller producers, notwithstanding the fact that they constitute a considerable share of the market. Consumer prices for customers of smaller producers could stay intact, whilst customers of large producers would have to pay more. Nevertheless, this proposal -or a similar one with a different pace of increase in the proportions of renewable and clean energy- in the current political situation would prove very difficult to pass through the Congress.

If climate change was one of the key topics in the presidential campaign in 2008, in 2012 the phrase was hardly ever mentioned. This omission was not only on the part of Republican candidate Mitt Romney, but was also absent from President Obama's campaign. It was not even a topic in the presidential election debates. When the issue did emerge, Mitt Romney, in spite of his relatively progressive record on environmental issues during his stint as governor of Massachusetts, spoke against tax credits for renewable energy and even expressed his dissatisfaction with the updated Corporate Average Fuel Economy (CAFE)<sup>5</sup> for cars, even though car manufacturers had agreed to it (Johnson 2012). During a debate on energy and the environment between representatives of both presidential candidates at the Massachusetts Institute of Technology, Romney's representative Oren Cass said that the energy plan of the Republican contender was that government investment was to be restricted to only the very early stages of research, with heavy reliance on private sector (Dizikes 2012).

Partisan division on topics related to energy and environment existed before, but the division has become very prominent during the Obama administration. The Democratic party is now strongly associated with the environmentalist agenda and policies to mitigate climate change, whereas it has become increasingly problematic for members of GOP to publically accept the existence of climate change and global warming, let alone design policies to address them (Purvis 2012). Under such a strong partisan division, it is almost impossible to get any major legislation on energy or the environment through Congress.

### 3. Regulations

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In response to the political deadlock at the legislative level, individual departments of the administration, such as the Department of Energy (DoE), the US Department of Transportation (DoT), and the Environmental Protection Agency (EPA) have reacted by issuing regulations within the limited -yet not insignificant- scope of authority they have been granted by individual laws. These institutions have consequently been able to shape a significant amount of rules and exert a great deal of influence on issues of energy efficiency and controls on the emission of greenhouse gases and other pollutants. The EPA particularly has become the target of a wider debate on the scope of its powers. Unsurprisingly, the debate is to a large degree unfolding along partisan lines.

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<sup>5</sup> CAFE is a regulation to increase fuel efficiency and curb the greenhouse gas emissions of new vehicles and is expressed in miles per gallon. More information in the National Highway Traffic Safety Administration (NHTSA) website: <http://www.nhtsa.gov/fuel-economy>.

The EPA has produced various regulations on pollution originating from coal-fired power plants and natural gas systems, as well as requirements on the efficiency of light bulbs and electric appliances. Through the Corporate Average Fuel Economy (CAFE) it also regulates the car industry in the form of limiting the greenhouse gas emissions of passenger cars, light-duty and heavy-duty trucks. CAFE was first introduced in the 1970s and had a profound effect on the fuel efficiency of cars, yet it became technologically obsolete in the 1990s. CAFE was not updated until 2007 (via the Energy Independence and Security Act), though its impact is still only slight - raising requirements from 27.5 miles per gallon to 35.5 by 2016. Even though CAFE proved effective in the 1970s and 1980s, the emission of carbon dioxide from transportation rose significantly since the 1990s. This was partially due to more mileage, but also thanks to the popularity of light-duty trucks, such as vans, pickups and sport utility vehicles (SUVs, the market share of which jumped from 2 to 28.5 percent between 1975 and 2010. See EPA 2012:tab. 7), which had an exception to CAFE and therefore maintained low fuel economy. Greenhouse gas emissions related to transportation accounted for 28 percent of emissions in 2011 and between 1990 and 2011 carbon dioxide transportation emissions grew by 17 percent (EPA 2013). In contrast, in Europe (which by and large traditionally sets a high excise tax on petrol) the average fuel efficiency of cars grew considerably, since the demand of customers (due to the expensive fuel) was centred more on small fuel-efficient cars.

In 2008 the American car industry was driven to its knees by the financial crisis, and survived only with generous help from the federal government. Oil prices, which had hit all-time records prior to the crisis, dropped significantly, but demand for new cars was low as a result of the crisis. As the economy sluggishly began to recover, prices of petrol rose again because of external circumstances such as the Arab spring, the war in Libya and also the Deepwater Horizon catastrophe.<sup>6</sup> As a result, American customers started buying lighter cars and the car industry finally concentrated more on the market section with better fuel efficiency and less robust bodies (Vlasic 2012). It was symbolic that in 2010 General Motors discontinued the line of lavishly inefficient Hummer SUVs, signalling a change in the American relationship with cars.

In 2012, the EPA in agreement with car manufacturers set a new CAFE that will gradually grow to the very ambitious target of 54.5 miles per gallon in 2025, thus requiring serious technological innovation involving much lighter car bodies and most probably hybrid-electric engines. Since 2011 heavy-duty trucks have also been given a CAFE standard for the first time in history.

The government and various agencies have the potential to influence environmental and energy regulations, even though there might be no new laws enacted by Congress. However, regulations may be rewritten with changes of administration, whereas laws always require a majority in Congress and therefore provide a better chance of continuity once they are approved. However, the newly revised CAFE has the potential to become one of the most promising steps towards reducing greenhouse gas emissions in the US.

## 4. Regional, State and Local Initiatives

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While political deadlock has inhibited action at the federal level, individual US states have introduced innovative legislation on greenhouse gas emissions and renewable energy. As a result, energy policies are increasingly subject to decentralisation. States have become active not only when it comes to their own legislation, but are also increasingly influencing energy policies on a larger scale. It is not just states that are developing programmes

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<sup>6</sup> The Deepwater Horizon was a deep-water oil rig operated by British Petroleum. It exploded on 20 April 2010 and spilled between 4 and 5 million barrels of oil into the coastal waters of the Gulf of Mexico, making it the worst accidental oil spill in history.

to support alternative energy and energy efficiency. Cities across the United States have also become involved in different initiatives to lower pollution levels in urban areas, to reduce the use of petroleum and to support alternative means of transportation. These local projects are usually conducted in cooperation with businesses and transportation companies or other private sector stakeholders.

States have also entered into the battle over the role and powers of the EPA. During the second Bush administration, the EPA was challenged by a group of states that were being asked to regulate their carbon dioxide and other greenhouse gas emissions under the Clean Air Act. The Clean Air Act, which was approved back in 1970, gives the EPA the power to regulate pollutants, from which followed the argument that greenhouse gases are a form of pollutants. In 2007, the Supreme Court decided the case, known as *Massachusetts v. EPA*, by upholding the role of the EPA in regulating greenhouse gases as a form of pollutant (US Supreme Court 2007). Under the Obama administration, the EPA, after conducting a thorough scientific study, promulgated greenhouse gas-related rules before again being challenged by a different group of states at the D.C. Court of Appeals on the right to regulate greenhouse gases. The states maintained that the EPA was misinterpreting the Clean Air Act and enacting oppressive regulation. The appeals court however followed the same reasoning as the Supreme Court and upheld the EPA's authority (US Court of Appeals for the District of Columbia 2012).

State policies vary greatly, depending on their geography, industries and electorate. As many as half of the states of the federation have adopted renewable portfolio standards of some sort, with the most common being the renewable electricity standard (Miranda 2010). Under such standards, energy providers are required to source a specific percentage of their electricity production from renewable sources. California and some states in the Northeast have also used clean energy funds, an effective tool of state investment into renewable energy.

The systems have experienced some teething problems but seem to be working quite effectively. One of the biggest issues with portfolio standards and clean energy funds at present is that states tend to choose winning technologies. In other words, states tend to prefer certain types of renewable energy technology that may be (usually for geographic reasons) most suitable for them, but these preferences invariably influence the choice of renewable technology beyond their borders. Renewable energy sources such as wind and solar power are most effective only in very specific external weather conditions, but if investors are rewarded for the use of solar power in one state, they will tend to construct solar power plants even in states where it would be more economical to build wind turbines, etc.

Most states also provide various forms of tax credits and deductions on renewable energy, yet the problem with picking specific technologies (and winners) applies here as well. In addition, just like federal tax credits, state tax credits are susceptible to political volatility. Tax credits are easily changed or not renewed when another party wins an election. Tea Party favourites are particularly prone to changing the tax credits and deductions set by former Democratic or Republican state governments. For example, Texan wind farms have been threatened with the loss of tax incentives in the form of property tax discounts.

Another problem that the states may face is an old transmission grid. A new, complex transmission system is needed, since renewable sources of energy do not supply the system with the same amount of energy consistently, but rather produce more at certain times and could thus potentially destabilise the entire grid with an overflow of energy.

California has long been the pioneer and trend-setter among states when it comes to the environment. California has set its own stricter rules for car emissions in the past, it has pioneered the use of catalytic convertors, and

the Californian example has often been followed by other states. The “Golden State”, with over 10 percent of the entire population of the US and the largest economy of any American state, is undoubtedly a significant actor. Not only does it have a population that is traditionally mindful to the environment, but there are much fewer partisan divisions on this issue as well. The state legislature has produced some important legislation on energy and environment at times when Republicans were holding the top office. It was during the tenure of Governor Arnold Schwarzenegger, most crucially, that the Global Warming Solution Act, also known as the “AB 32” Act, was introduced (California 2006). This piece of legislation has created the basis for a new cap-and-trade scheme in the state and set as a goal the gradual reduction of greenhouse gas emissions to 1990 levels by 2020. The legislation was approved during the tenure of a Republican governor but implementation had already been prepared when Democrat Jerry Brown took over the government in 2011.

The implementation of California’s cap-and-trade scheme has not come without problems and has been delayed and challenged in court (US Court of Appeals of the State of California 2012), but it still represents the most extensive emissions trading scheme in the US. If it is successful, other states and regions will be encouraged to subscribe to a similar one. Neighbouring states and Canadian provinces might join it. California is a member of the Western Climate Initiative (WCI) the signatories of which are not only US states, but also some Canadian provinces (observer status is also awarded to some Mexican states). The WCI’s goal is to reduce greenhouse gas emissions and possibly create an emission-trading scheme covering most of the western part of the North American continent.<sup>7</sup> Governor Brown and other representatives of California are lobbying in Quebec and British Columbia, in the hope that the Canadian provinces may expand California’s cap-and-trade (York 2013).

Spreading the cap-and-trade scheme to a larger region would be beneficial, since if the scheme is only pursued by a single state it can have little direct effect on pollution and almost zero effect globally. Comparatively, other forms of pollution that have a dramatic effect on the air and water quality, when addressed, have a faster, more visible impact and are more easily “sold” to voters.

Another significant state initiative is the Regional Greenhouse Gas Initiative (RGGI), which has already implemented a form of emissions trading, though less extensive than the Californian model since it applies only to power generating facilities. RGGI members are US states in New England and other north-eastern states, as well as Ontario, Quebec and New Brunswick in Canada. The profits generated through the system are later reinvested into improving energy efficiency and in several states of the RGGI the revenue from emissions sold goes directly to state clean energy funds.<sup>8</sup>

This notwithstanding, the RGGI has suffered from some setbacks, notably New Jersey’s withdrawal from the scheme. According to New Jersey Governor Chris Christie, the RGGI is not sufficiently effective and does not have the potential to curb emissions significantly in the future (Navarro 2011). Another initiative that aims to limit greenhouse gas emissions and build a cap-and-trade system is the Midwestern Greenhouse Gas Accord, although this initiative has been dormant for the past few years. In 2012, states also created a forum on the reduction of greenhouse gas emissions, which is called North America 2050.

State rules can become a model for national regulation – California has in the past proved that it can be a trendsetter. However, it may be extremely difficult to unify pre-existing state regulations. For example, renewable portfolio standards are in some form valid in almost half of all states in the US, yet the standards differ widely and

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7 See the WCI website: <http://www.wci-inc.org>.

8 See the RGGI website: <http://www.rggi.org>.

it could be hard to bring uniformity at the federal level. Similar challenges might impose a federal cap-and-trade system to those already in existence. In the case of cap-and-trade, less strict rules on credits may completely compromise the emissions trading already in place by devaluing the price of credits.

## Conclusion

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In recent years, the United States has decreased its levels of greenhouse gas emissions per year. However this is to a great extent caused by external factors such as the natural gas boom, high oil prices, the economic crisis and technological development, rather than by conscious policies and clear leadership from Washington. Partisan divisions over energy policy increased significantly during the first Obama administration to the extent that during the 2012 presidential campaign it became politically difficult for Republicans even to speak about climate change as a proven scientific fact. Climate change became an unconvincing “theory” for too many voters, especially those without a stable political affiliation or those who support Republicans.

Since Congress is in political deadlock over energy policy and an agenda that would lead to reducing the levels of greenhouse gas emissions, the executive has increasingly resorted to using its own powers to act. The EPA in particular has had a great impact on energy and environmental issues.

Individual US states have also turned out to be much more dynamic in enacting energy and environment policies. Yet state energy policies are often volatile and susceptible to political change; in addition, inconsistencies in state programmes tend to harm the development of renewable energy technologies. One way to overcome this problem is by involving more states (even from other countries, such as Canada) in regional arrangements, such as WCI or the RGGI. Regional initiatives to curb emissions on a market-based scheme could spread to new states if proven successful. Another challenge presented by the trend of state energy policies is that it might be difficult to connect them to a universal federal policy at some point in the future.

The prospect of a federal market-based scheme is bleak, at least until the next Congressional election in 2014. After the hibernation of energy policy during the presidential election in 2012, the reality of budgetary difficulties have sunk in with politicians and both sides of the political spectrum have started talking about the possibility of a carbon tax that could boost federal tax revenue. In all likelihood, if it had been raised a few days prior to the election, such an idea would have been deemed absolutely unrealistic to even talk about (Volcovici 2012). President Obama came back to the topic in his 2013 State of the Union address and practically warned Congress that it should produce a bipartisan market-based solution to curb greenhouse gas emissions; otherwise he will use all his executive power to take action. President Obama also spoke in favour of the creation of a new Energy Security Trust, which would be funded by revenue from oil and gas production on federal lands and would direct money into research. Even so, it is still highly unlikely that Congress will reach a compromise on energy.

In 2012 the United States faced a series of extreme weather events, varying from extreme drought and wildfires to the “superstorm” Sandy, and the beginning of 2013 brought massive snowstorms. The public might react to such outbreaks of extreme weather; if public opinion changes, there might be some chance that less dogmatic politicians in Congress will manage to fight their way to a compromise on energy. However, this will almost certainly not change until the next midterm election and the 114th Congress.

## References

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California (2006), *Global Warming Solutions Act of 2006*, Assembly Bill No. 32, 27 September, [http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab\\_0001-0050/ab\\_32\\_bill\\_20060927\\_chaptered.pdf](http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf).

Dizikes, Peter (2012), "Presidential campaigns offer energetic energy debate at MIT", *MIT News*, 9 October, <http://web.mit.edu/newsoffice/2012/obama-romney-reps-debate-energy-1009.html>.

EIA (2012a), *Analysis of the Clean Energy Standard Act of 2012*, 2 May, <http://www.eia.gov/analysis/requests/bces12>.

EIA (2012b), *How dependent are we on foreign oil?*, 13 July, [http://www.eia.gov/energy\\_in\\_brief/foreign\\_oil\\_dependence.cfm](http://www.eia.gov/energy_in_brief/foreign_oil_dependence.cfm).

EIA (2013a), *Carbon Dioxide Emissions Coefficients*, 14 February, [http://www.eia.gov/environment/emissions/co2\\_vol\\_mass.cfm](http://www.eia.gov/environment/emissions/co2_vol_mass.cfm).

EIA (2013b), *Short Term Energy Outlook (STEO) - Natural gas*, 12 February, <http://www.eia.gov/forecasts/steo/report/natgas.cfm>.

EIA (2013c), *U.S. Imports from Canada of Crude Oil and Petroleum Products*, 27 February, <http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=mttimusca1&f=m>.

EPA (2012), *Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 Through 2011*, <http://www.epa.gov/otaq/fetrends.htm>.

EPA (2013), *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2011*, April, <http://www.epa.gov/climatechange/ghgemissions/usinventoryreport.html>.

Jenkins, Jesse, et al. (2012), *Beyond Boom & Bust. Putting Clean Tech on a Path to Subsidy Independence*, Washington, Brookings Institution, April, <http://www.brookings.edu/research/papers/2012/04/18-clean-investments-muro>.

Johnson, Brad (2011), "Romney pledges to kill existing Fuel Economy Standards", *ThinkProgress*, 5 December, <http://thinkprogress.org/climate/2011/12/05/382001/romney-pledges-to-kill-existing-fuel-economy-standards>.

Laird, Frank N., and Stefes, Christoph (2009), "The diverging paths of German and United States policies for renewable energy: Sources of difference", *Energy Policy*, Vol. 37, No. 7 (July), p. 2619–2629, [http://www.drexel.edu/~media/Files/greatworks/pdf\\_fall09/GermanUnitedStatespolicies.ashx](http://www.drexel.edu/~media/Files/greatworks/pdf_fall09/GermanUnitedStatespolicies.ashx).

Mayer, Frederick.W. (2012), "Series Stories of Climate Change: Competing Narratives, the Media, and U.S. Public Opinion 2001-2010", *Joan Shorenstein Center on the Press, Politics and Public Policy Discussion Paper Series*, No. D-72, February, <http://shorensteincenter.org/2012/02/stories-of-climate-change>.

Miranda, Therese (2010), "Designing a National Renewable Electricity Standard. Five Key Components", *Carnegie Policy Outlook*, 2 November, <http://carnegieendowment.org/2010/11/02/designing-national-renewable-electricity-standard-five-key-components/24en>.

Navarro, Mireya (2011), "Christie pulls New Jersey from 10-state climate initiative", *The New York Times*, 27 May, p. A20, <http://www.nytimes.com/2011/05/27/nyregion/christie-pulls-nj-from-greenhouse-gas-coalition.html>.

Obama, Barack (2008), *New Energy for America*, Speech delivered at Lansing, Michigan, 4 August, [http://www.pbs.org/newshour/bb/politics/july-dec08/obamaenergy\\_08-04.html](http://www.pbs.org/newshour/bb/politics/july-dec08/obamaenergy_08-04.html).

Obama, Barack (2013), *Remarks by the President in the State of the Union Address*, 12 February, <http://www.whitehouse.gov/the-press-office/2013/02/12/remarks-president-state-union-address>.

Purvis, Nigel (2012), "Climate of Despair? The Future of U.S. Climate Policy and Global Negotiations", *GMF Climate & Energy Policy Paper Series*, April, <http://www.gmfus.org/archives/climate-of-despair-the-future-of-u-s-climate-policy-and-global-negotiations>.

Rasmussen Reports (2012), *44% Support Building more U.S. Nuclear Power Plants*, 18 May, [http://www.rasmussenreports.com/public\\_content/politics/general\\_politics/may\\_2012/44\\_support\\_building\\_more\\_u\\_s\\_nuclear\\_power\\_plants](http://www.rasmussenreports.com/public_content/politics/general_politics/may_2012/44_support_building_more_u_s_nuclear_power_plants).

Reardon, Jack (2004), "An Institutional Critique of the Bush Administration's Energy Policy", *Journal of Economic Issues*, Vol. 38, No. 2 (June), p. 449-457.

Schmidt, Jake, and Haifly, Aaron (2012), *Energy fact Delivering on Renewable Energy Around the World: How Do Key Countries Stack Up?*, New York, Natural Resources Defense Council, May, <http://www.nrdc.org/energy/12060701.asp>.

US (2005), *Energy Policy Act of 2005*, Pub.L. 109-58, 8 August, <http://www.gpo.gov/fdsys/pkg/PLAW-109publ58>.

US (2007), *Energy Independence and Security Act of 2007*, Pub.L. 110-140, 19 December, <http://www.gpo.gov/fdsys/pkg/PLAW-110publ140>.

US (2009a), *American Clean Energy and Security Act of 2009*, H.R. 2454, 26 June, <http://www.gpo.gov/fdsys/pkg/BILLS-111hr2454eh>.

US (2009b), *American Recovery and Reinvestment Act of 2009*, Pub.L. 111-5, 17 February, <http://www.gpo.gov/fdsys/pkg/PLAW-111publ5>.

US (2012), *Clean Energy Standard Act of 2012*, S. 2146, 1 March, <http://www.gpo.gov/fdsys/pkg/BILLS-112s2146is>.

US Court of Appeals of the State of California (2012), *Association of Irrigated Residents v California Air Resources Board*, 143 Cal. Rptr. 3d 65, 16 June, <http://www.courts.ca.gov/opinions/archive/A132165.DOC>.

US Court of Appeals for the District of Columbia (2012), *Coalition for Responsible Regulation, Inc., et al. v Environment Protection Agency*, Case No. 09-1322, 26 June, [http://www.cadc.uscourts.gov/internet/opinions.nsf/52AC9DC9471D374685257A290052ACF6/\\$file/09-1322-1380690.pdf](http://www.cadc.uscourts.gov/internet/opinions.nsf/52AC9DC9471D374685257A290052ACF6/$file/09-1322-1380690.pdf).

US Supreme Court (2007), *Massachusetts v Environmental Protection Agency*, 549 US 497, 2 April, <http://www.supremecourt.gov/opinions/06pdf/05-1120.pdf>.

Vlasic, Bill (2012), "Gas Prices Rise, but So Do Auto Sales", *The New York Times*, 5 September, p. B1, <http://www.nytimes.com/2012/09/05/business/august-us-car-sales.html>.

Volcovici, Valerie (2012), "Long-shot carbon tax suddenly part of fiscal cliff debate", *Reuters*, 8 November, <http://www.reuters.com/article/2012/11/08/us-carbon-tax-fiscal-cliff-idUSBRE8A71IU20121108>.

Yehle, Emily (2011), "As Stimulus Funding Ends, Experts Weigh Law's Impact on 'Green Economy'", *The New York Times*, 2 June, <http://www.nytimes.com/gwire/2011/06/02/02greenwire-as-stimulus-funding-ends-experts-weigh-laws-imp-3817.html>.

York, Anthony (2013), "Gov. Jerry Brown works to spread California's green doctrine", *The Los Angeles Times*, 3 March, <http://www.latimes.com/news/local/la-me-brown-environment-20130304,0,7670187,full.story>.

## THE PROJECT

In an era of global flux, emerging powers and growing interconnectedness, transatlantic relations appear to have lost their bearings. As the international system fragments into different constellations of state and non-state powers across different policy domains, the US and the EU can no longer claim exclusive leadership in global governance. Traditional paradigms to understand the transatlantic relationship are thus wanting. A new approach is needed to pinpoint the direction transatlantic relations are taking. TRANSWORLD provides such an approach by a) ascertaining, differentiating among four policy domains (economic, security, environment, and human rights/democracy), whether transatlantic relations are drifting apart, adapting along an ad hoc cooperation-based pattern, or evolving into a different but resilient special partnership; b) assessing the role of a re-defined transatlantic relationship in the global governance architecture; c) providing tested policy recommendations on how the US and the EU could best cooperate to enhance the viability, effectiveness, and accountability of governance structures.

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