This is a post-print version of:

Skodvin, Tora and Steinar Andresen 'An agenda for change in U.S. climate policies? Presidential ambitions and congressional powers'. *International Environmental Agreements: Politics, Law and Economics*, Published online 25 June 2009. DOI: 10.1007/s10784-009-9097-7

The original publication is available at www.springerlink.com

An agenda for change in U.S. climate policies? Presidential ambitions and congressional powers

By Tora Skodvin* and Steinar Andresen**

* Center for International Climate and Environmental Research, Oslo (CICERO), P.O. Box 1129 Blindern, 0318 Oslo, Norway. tora.skodvin@cicero.uio.no

** The Fridtjof Nansen Institute, P.O. Box 326, 1326 Lysaker, Norway

Abstract U.S. membership in the Asia-Pacific Partnership on Clean Development and Climate (APP) constituted an important element in the Bush administration's voluntary and non-committing 'soft-law' approach to climate change. With the inauguration of President Barack Obama, the U.S. has embarked on a shift in its climate policy towards a legislative, 'hard-law' strategy. Obama's approach implies that the distribution of interests in Congress becomes more significant. In this article, we assess the rules and procedures governing the relationship between the president and the Congress embedded in the U.S. Constitution and explore implications of a stronger congressional involvement in U.S. climate policies for President Obama's ability to realise his climate policy ambitions at both the domestic and the international levels. We argue that the strong relationship between natural resource dependence (coal and oil) and opposition to climate policies is a constant feature of the U.S. climate policy debate. To succeed, Obama must break the enduring gridlock characterising congressional debate in this policy area by designing policies that, through compromise and compensation, can mobilise the support of oil- and coal-state representatives in Congress. The acceptability of an international climate treaty in Congress, moreover, depends inter alia on the resolution of the difficult issue of developing country participation. Success may be enhanced by using the APP and the Major Economies Initiative as informal arenas for negotiation and sector-based cooperation, thus providing a much-needed supplement to the UN-based negotiation process.

Key words U.S. climate policy, soft-law, hard-law, Asia-Pacific Partnership on Clean Development and Climate, Major Economies Initiative, international climate treaty.

1 Introduction

For several years the U.S. has been at odds with the Kyoto countries in its climate policy position. The U.S. reluctance to endorse the Kyoto approach has been one main cause of the slow progress we have seen in international climate negotiations since the U.S. withdrew from the Kyoto process in 2001. The U.S. opposition to the Kyoto approach seemed to reach a climax when the U.S., together with Australia, was instrumental in setting up the Asia-Pacific Partnership on Clean Development and Climate (APP) in 2005 – an approach some observers viewed as a main alternative and competitor to the Kyoto process (see, for instance, McGee and Taplin 2006).

A key feature of the 2000-2008 Bush administration's climate policy strategy was its opposition against mandatory climate measures. At the domestic level, the main instrument of

climate policy was voluntary agreements with industry.¹ At the international level, while participating in the UN-based negotiation process, the Bush administration also pursued a non-committing, 'soft-law' approach, in which the U.S.'s membership in the APP represented a key element. In contrast, President Barack Obama pursues an ambitious legislative strategy at the domestic level and a treaty-based, 'hard-law', approach at the international level, which would put the U.S. more in line with the climate strategies of other Annex I countries, notably the EU.

Obama's climate policy strategy thus implies a shift in the branches of government involved in the decision-making process through which climate policies are adopted. In particular, whereas non-mandatory policies can be adopted by the executive branch, a legislative approach at home and membership in a committing international treaty implies that the distribution of interests in Congress becomes more significant.

In this article, we assess the rules and procedures governing the relationship between the president and the Congress embedded in the U.S. Constitution and explore implications of a stronger congressional involvement in U.S. climate policies for President Obama's ability to realise his climate policy ambitions at both the domestic and the international levels. We argue that the strong relationship between natural resource dependence (coal and oil) and opposition to climate policies is a constant feature of the U.S. climate policy debate. To succeed, Obama must break the enduring gridlock characterising congressional debate in this policy area by designing policies that, through compromise and compensation, can mobilise the support of oil- and coal-state representatives in Congress. The acceptability of an international climate treaty in Congress, moreover, depends on the resolution of the difficult issue of developing country participation. Success may be enhanced by using initiatives introduced by the Bush administration, such as the APP and the Major Economies Initiative, as informal arenas for negotiation process.

The analysis proceeds as follows. In section 2, we give a brief overview of how the U.S. Constitution regulates the relationship between the President and the Congress in U.S. foreign policy. In section 3, we review climate policies and ambitions from Clinton to Obama with a view to how the strategies and ambitions pursued imply congressional involvement. Particular attention is given to the climate policy of the Bush administration. In section 4, we explore the political opportunity space in the congressional climate policy debate, before we discuss what this may imply for U.S. international climate strategies in the coming years (section 5). Section 6 concludes.

2 The power of the President and the role of Congress in U.S. foreign policy: a brief overview

Although the framers of the U.S. Constitution provided "energy in the Executive" by providing for a presidency with an electoral base that was independent of Congress, the president was not given explicit *powers* independent of Congress (Lowi and Ginsberg 1998, p. 219). This implies that the office of the president "was to be an office of delegated powers": The executive power of the presidency established in the Constitution's Article II, "must be understood to be defined as the power to execute faithfully the laws *as they are adopted by Congress*" (Lowi and Ginsberg 1998, p. 221; emphasis in original). This provision of the U.S. Constitution guides all policy areas, including the making of U.S. foreign policies.

The Constitution allows presidents "an exceptional influence" over U.S. foreign policy (Fiorina et al. 2004, p. 532). Yet, even in this policy area the president has to share his powers with

¹ The International Energy Agency (IEA) defines voluntary agreements as "those actions which form part of government policy to meet energy and climate policy objectives, and are actions based on a joint undertaking between government and industry or between national and local authorities" (IEA 1997, p. 27). While voluntary agreements may come in the form of "formally agreed co-operative programmes and binding agreements that come close to regulation" (IEA 1997, p. 27), voluntary agreements are more often, as in the U.S. case, non-mandatory in the sense that a failure of implementation is not sanctioned by governmental authorities.

Congress. In particular, while Article II, section 2 of the Constitution provides the president with the power to negotiate (international) treaties, he can only do so "with the Advice and Consent of the Senate" and "provided two thirds of the Senators present concur" to the provisions of the treaty. With all 100 senators present and voting, a minority of 34 senators can thus block U.S. ratification of an international treaty. Several presidents have experienced the loss of international credibility associated with a failure to pass an international treaty in the Senate. The most famous is President Woodrow Wilson's failure to acquire the Senate's ratification of the establishment of the League of Nations after World War I, which he had put so much effort into negotiating (Fiorina et al. 2004).

To circumvent the required senatorial ratification, presidents often negotiate executive agreements instead of treaties. The Constitution does not explicitly give the president the right to make executive agreements, but their constitutionality was confirmed by the Supreme Court in 1937 (Lowi and Ginsberg 1998; Fiorina et al. 2004). According to the Supreme Court ruling, executive agreements are equivalent to treaties but do not require Senate approval. With the 1972 Case Act, however, the President is required to inform Congress of executive agreements within sixty days after they have been made. This gives Congress the chance to cancel agreements that it opposes (Lowi and Ginsberg 1998, p. 204). Given Congress's 'power of the purse', another instrument through which Congress can limit the president's power to conduct foreign policy through executive agreements, is by "refusing to appropriate the funds needed to implement an agreement" (Lowi and Ginsberg 1998, p. 204).

A third provision of the U.S. Constitution that has relevance in the U.S.'s participation in international treaties, is the status of international treaties after having been ratified by the Senate. Article VI of the Constitution states that "[t]his Constitution, and the laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be *the supreme Law of the Land*...". This provision implies that when ratified, international treaties acquire the same status as federal law and are subjected to the same implementation regime. This includes vast opportunities to use the judicial system to ensure that treaties are actually implemented (Lowi and Ginsberg 1998, p. 131 and 328). This provision of the Constitution, therefore, has implied that the Senate is reluctant to ratify international agreements that include specific commitments by the U.S. unless these commitments already are established as federal law (Fisher 2004).

The literature on international relations increasingly distinguishes between 'soft' and 'hard' international law. Soft law is often understood as "non-binding or voluntary resolutions and codes of conduct formulated and accepted by international and regional organisations" (Chinkin 1989, p. 851). However, given the sovereignty of all nation states, which implies that all international agreements are voluntary, the criterion of 'voluntary' is not useful to precisely define soft law. Rather, the concepts of 'soft' versus 'hard' international law refer to the *level of commitment* an agreement implies for its members. To be regarded as 'hard' a treaty "must be precisely worded and specify the exact obligations undertaken or the right granted" (Chinkin 1989, p. 851). In contrast, "where a treaty provides only for the gradual acquiring of standards or for general goals and programmed action it is itself soft" (Chinkin 1989, p. 851). According to O'Connell, 'soft' law may come in treaty form, for instance, when a treaty is "devoid of legal content" (O'Connell 1972, cited in Chinkin 1989, p. 851).

Within the context of U.S. foreign policymaking, the adoption of a soft law strategy normally would have implications for the involvement of Congress in the decision-making process. Notably, soft law that takes the form of agreements that are not embedded in an international treaty, such as the APP, do not require the Senate's approval.

3 U.S. climate policies from Clinton to Obama: the executive versus the legislative branch

The provisions of the Constitution guiding U.S. foreign policymaking have had, and will continue to have, implications for the development of both domestic and international U.S. climate policies. With a main focus on the Bush administration, this section reviews climate policies and ambitions from Clinton to Obama with a view to how the strategies and ambitions pursued imply congressional involvement.

3.1 The Clinton administration (1992–2000)

Two key elements have been at the core of U.S. climate policy since the issue surfaced on the international agenda. First, any international effort to mitigate climate change has to include all major global emitters – i.e. developed *and* developing countries. Second, there is no trade-off between climate change mitigation efforts and economic growth (McGee and Taplin 2008). Thus, policy measures to mitigate climate change are only acceptable to the extent that they do not jeopardise U.S. economic growth.

When the Clinton administration signed the Kyoto Protocol, it did so in spite of the 1997 Byrd-Hagel resolution expressing the 'sense of the Senate' that an international climate agreement, which did not include developing country participation or that would "result in serious harm to the economy of the United States" would not acquire the ratification of the Senate.² The resolution was adopted in a unanimous 95-0 vote and represented a powerful signal that a Kyoto-type agreement, which arguably violated both conditions specified in the resolution, would not receive the support of the required two-thirds majority of the Senate. The treaty was never submitted to the Senate for ratification.³

Immediately after taking office, the Clinton administration announced a U.S. target of stabilisation of greenhouse gas emissions at their 1990 levels by 2000. A British Thermal Unit (BTU) tax based on the heat content of the fuel was proposed as a main instrument to achieve this goal (Skjærseth and Skodvin 2003, p. 118ff). The BTU tax proposal, however, was rejected by the Democratic majority in Congress.⁴ With Congress's rejection of the tax proposal, the Clinton administration's domestic climate policies shifted towards a non-mandatory approach in which voluntary agreements with industries constituted a core element (Skjærseth and Skodvin 2003). Yet, the Clinton administration continued to pursue a hard-law approach on the international arena, as exemplified in its signing of the Kyoto Protocol. Without federal climate legislation in place, however, the Clinton administration's Kyoto effort was doomed to failure.⁵

3.2 The Bush administration (2000–2008)

Despite his presidential-campaign promise to regulate CO_2 emissions from power plants (*E&E Daily* 2006a), one of the first things President Bush did after taking office in the White House was to announce the U.S.'s withdrawal from the Kyoto Protocol in March 2001. An important foundation for his decision was the Byrd-Hagel resolution.

Convention on Climate Change". Retrieved January 31, 2007 from http://thomas.loc.gov/cgibin/query/D?c105:3/temp/~c105bCspnC.

² S. Res 98 of 25 July 1997; "Expressing the sense of the Senate regarding the conditions for the United States becoming a signatory to any international agreement on greenhouse gas emissions under the United Nations Framework

³ For an early analysis of U.S. climate policy, see Agrawala and Andresen (1999).

⁴ See also "National Environmental Scorecard for the 103rd Congress, First Session", issued by the League of Conservation Voters, February 1994.

⁵ For a more detailed account of climate policies under the Clinton administration, see Fisher (2004).

In 2002, the Bush administration launched its main alternative to the Kyoto Protocol, the 'Climate Change Initiative'.⁶ The initiative set a goal of reducing the 'greenhouse gas intensity' of the U.S. economy by 18 percent by 2012 and introduced four domestic policy programs to achieve it.⁷ These were primarily voluntary programs with industries to promote technology development. The technology focus was reinforced in 2007 in a pledge to (continue to) "[lead] the way with clean energy technology" and to "[step] up efforts to make advanced energy technology commercially viable".⁸

In its domestic policies, the Bush administration thus pursued a strategy of engagement with industry through voluntary agreements to promote technology development and reduce the greenhouse gas intensity of the U.S. economy. This approach was also at the core of the Bush administration's international climate strategy.

Even though the Bush administration participated in the UN-based negotiation process on climate change, its main instrument at the international level was non-committing partnerships. The U.S. joined four main international partnerships related to climate change during Bush's presidency: The Carbon Sequestration Leadership Forum, established in 2003;⁹ The International Partnership for the Hydrogen Economy, also established in 2003;¹⁰ The Methane to Markets Partnership, established in 2004;¹¹ and the Asia-Pacific Partnership, established in 2005. In 2007, the partnership approach was supplemented by the 'Major Economies Initiative' in which the U.S. initiated the establishment of a forum to improve the international dialogue on climate change, which included the 17 largest economies in the world.¹² The partnerships were all voluntary with a key focus on technology development. Further, they represented efforts to engage developing countries in the mitigation of climate change in ways that the Kyoto Protocol did not. In this respect, the initiatives addressed a key concern in U.S. climate policies since the mid-1990s (see, for instance, *Greenwire* 2006a).

During the last decade, efforts to develop international climate cooperation with broader participation have been stalemated by the mutual conditionality of U.S. and developing country positions on climate change. The U.S. would not join an international climate regime unless and until major developing country emitters like China and India were subjected to similar regulatory requirements. China and India would not join an international climate regime with binding commitments unless and until developed countries, notably the U.S., had shown willingness and ability to reduce their own greenhouse gas emissions first. In the 2002 initiative, however, the Bush administration took measures to convert this conflict into a foundation for cooperation. In particular, the focus on greenhouse gas intensity was an approach believed to ensure economic growth, which in its turn would make investments in advanced technologies possible in developed as well as developing countries. This approach, therefore, was neatly aligned with developing country interests in which economic growth and access to new technologies were core issues. Noting that "eighty-one percent of the growth in global carbon emissions from fossil fuel use in 1990-2010 is expected to come from developing countries", a reduction in this projected, exponential growth was considered "a critical element of any rational policy to address global climate change".¹³ Thereby the foundation for the U.S.'s initiation of and membership in the APP was established.

⁶ "Global Climate Change Policy Book" issued by The White House February 2002, retrieved January 4, 2007 from http://www.whitehouse.gov/news/releases/2002/02/climatechange.html.

⁷ Observers maintain that an aim of 18 percent reduction in greenhouse gas emissions intensities is 'business as usual' in the U.S. economy: "The U.S. intensity peaked in 1922 and has been declining at about 18 percent per decade ever since" (Victor 2004, p. 43).

⁸ "A New International Climate Change Framework", issued by the White House, Office of the Press Secretary, 31 May 2007. See also Abraham (2004).

⁹ For more information, see http://www.cslforum.org/index.htm, retrieved January 27, 2009.

¹⁰ For more information, see http://www.iphe.net/index.html, retrieved January 27, 2009.

¹¹ For more information, see http://www.methanetomarkets.org/, retrieved January 27, 2009.

¹² "A New International Climate Change Framework", issued by the White House, Office of the Press Secretary, 31 May 2007.

¹³ Ibid.

Given that less than 20 countries are responsible for more than 80 percent of global greenhouse gas emissions (WRI 2009), the establishment of negotiating arenas with limited participation makes sense. However, having consistently rejected mandatory greenhouse gas emissions reduction targets, the U.S.'s credibility in international climate policies during the Bush administration was low. Thus, when the APP was launched, critics dismissed it as a "cynical diversion from progress made on the [Kyoto] Protocol",¹⁴ and "a red herring to distract attention from the Bush Administration's failure to tackle the greatest environmental challenge of our time".¹⁵ Testifying before the Senate in April 2006, head of the Natural Resources Defense Council's Climate Center, David Doniger, maintained that the agreement "is an exercise in looking busy while other nations engage in real efforts internationally and while business leaders, elected officials and others work toward real politics here at home".¹⁶

The APP was launched as a complement to the Kyoto Protocol. Statements by the main proponents of the partnership, however, give grounds to question this motivation. For instance, Australian environment minister, Ian Campbell, stated that:

"we're going to have a 40 per cent increase in greenhouse gas emissions under the Kyoto Protocol and the world needs a 50 per cent reduction. (...) Anyone who tells you that (...) signing the Kyoto Protocol is the answer, doesn't understand the question (...) We know that this [Partnership] is the answer, we know that the Kyoto Protocol is a failure in terms of saving the climate – we have to do better".¹⁷

Similarly, U.S. Deputy Secretary of State, Robert Zoellick, stated that "we're going to be more effective [than the Kyoto Protocol] in dealing with these combined challenges on energy, environment, climate change, if we do so in a way that takes account of mutual interests and incentives (...) One can't just command other parties to do things. You can try, but it's not going to be effective."¹⁸ Figures published by The Climate Institute (2006) based on modelling results do not confirm this optimism regarding the environmental impact of the APP: "The [APP] modelling shows that even with ambitious assumptions, the best case is that work under the [APP] would result in emissions more than doubling by 2050" (The Climate Institute 2006, p. 7; see also *E&E News PM* 2006a).

The motivation for the U.S. membership in the APP thus seems to lie in a concern for the environmental effectiveness of international efforts to mitigate climate change – notably the Kyoto approach – as well as the potential adverse effects on U.S. competitiveness associated with the Kyoto approach. Also, five years after the U.S. withdrew from the Kyoto Protocol, international pressure for a U.S. international strategy to deal with climate change may have mounted, and U.S. membership in the APP may be seen as a response to that.

Being a non-binding partnership, the APP clearly falls in the category of a soft law approach that does not require congressional approval. However, funds for the collaboration do require congressional approval. At the inaugural meeting in Sydney, the U.S. made a one-time pledge of USD 52 million for 2007, and more in the coming years if approved by Congress. As it turned out, however, it proved difficult for Bush even to raise the funding pledged for 2007. Appropriators in the House of Representatives, for instance, rejected all but USD 4 million for the State Department to spend on an international technology-sharing program (*E&E News PM* 2006b). After the White

¹⁴ Friends of the Earth, Press Release, "Asia-Pacific Partnership will fail to tackle climate change", 10 January 2006. Retrieved March 6, 2006 from http://www.foe.co.uk.

¹⁵ Statement released by (then) House Democratic Leader Nancy Pelosi: "Bush Administration Lacks Serious Policy on Global Warming". Retrieved January 31, 2007 from http://www.house.gov/pelosi/press/releases/Jan06/warm.html.

¹⁶ Testimony of David D. Doniger, Climate Center Natural Resources Defense Council in hearing on the Asia-Pacific Partnership. Environment and Public Works Committee, the U.S. Senate, September 2006.

¹⁷ Press conference at Yaluma Primary School, Perth, Australia, 27 July 2005. Retrieved January 4, 2007 from http://www.whitehouse.gov.req//foia/asia_pacific_partnership/appad.pdf.

¹⁸ U.S. Department of State press conference at Vientiane, Laos, 28 July 2005. Retrieved January 4, 2007 from http://www.whitehouse.gov.req//foia/asia_pacific_partnership/appad.pdf.

House launched both a public and private lobbying campaign for the requested funding, the Administration's request fared better in the Senate and ended up with USD 42 million, but still USD 10 million below the requested, and pledged, amount (Van Asselt 2007; *E&E Daily* 2006b; *Greenwire* 2006b).

In its domestic and international climate policies, the Bush Administration thus developed strategies that allowed the executive branch a great deal of independence vis-à-vis Congress. At the domestic level, Bush strongly opposed mandatory policies and relied instead on voluntary agreements with industry that could be reached without the involvement of Congress except when funding was required. Similarly, at the international level, the Bush administration was instrumental in initiating a number of non-binding partnerships, also not requiring congressional approval. In this way, the Bush Administration "concentrate[d] decision making within fairly tight circles of the executive branch that were highly loyal to the president" and whereby "congressional and state government leaders with contrary agendas became increasingly marginal figures" (Rabe 2007, p. 417).

3.3 The Obama administration (2008–present)

As pointed out by Fisher, the provisions of the U.S. Constitution have implied that "the history of the politics of climate change in the United States has long been one of debate and discord: since well before the Kyoto round of negotiations, in 1997, the United States had not had a consistent climate change policy, let alone one agreed on by the different branches of the government" (Fisher 2004, p. 121). Is that history set to change with President Obama in the White House?

In his presidential election campaign, Obama repeatedly talked about "a planet in peril" and his intention of making the U.S. a leader in global efforts to combat climate change (*The Economist* 2009). Obama's announced climate goal included a stabilisation of greenhouse gas emissions at their 1990 levels by 2020 and 80 percent reduction from 1990 levels by 2050. As discussed above, the domestic and international strategies are strongly linked. Before the Senate can ratify U.S. participation in an international agreement, federal legislation to ensure implementation of specific commitments needs to be in place.

Obama's U.S. climate policy makeover, however, was kick-started with the initiation of measures that did *not* require congressional approval (see also Román and Carson 2009). For instance, after less than a week in the presidential chair, he had launched two initiatives. First, he instructed the Department of Transportation to set new fuel-economy standards for motor vehicles by March 2009, for 2011 car models (*Greenwire* 2009a). The instruction had its legislative foundation in the "Energy Independence and Security Act of 2007", adopted by Congress and signed by President Bush in December 2007 but which the Bush Administration did not take steps to implement. Second, he instructed the Environmental Protection Agency (EPA) to review the request by California to enforce its own strict limits on CO₂ emissions from cars. As the only state, the Clean Air Act allows California to enforce its own standards, although only with a federal EPA waiver. If EPA grants the waiver, other states can adopt California's standards. California's request was first issued in 2002, but the Bush administration sat on it for four years before it was denied in March 2007 (Los Angeles Times 2009; see also E&E Daily 2009a).

Obama also initiated a process to follow up on the U.S. Supreme Court ruling (*Massachusetts vs EPA*) from April 2007 in which the Supreme Court concluded that CO₂ is a pollutant under the Clean Air Act and that the EPA must take action regarding CO₂ emissions from motor vehicles. Section 202 of the Clean Air Act requires an 'endangerment finding': that is, documentation that the emissions in question cause or contribute to air pollution "which may reasonably be anticipated to endanger public health or welfare". According to Senate Environment and Public Works Committee Chair, Barbara Boxer, the required documentation was prepared by the EPA for the Bush Administration, but it was blocked by the White House (*Greenwire* 2009b; 2009c). Experts predict the EPA finding also will trigger rules for stationary sources such as power plants and refineries (*ClimateWire* 2009a). The Supreme Court ruling thus enables two tracks for

addressing climate change: the legislative track of developing comprehensive federal climate legislation through Congress, and an administrative track whereby regulations are developed under the Clean Air Act by the EPA (*E&E News PM* 2007a). EPA issued its endangerment finding in April 2009 and the public comment period ends 23 June 2009. Observers have maintained that "EPA regulations may end up being Obama's diplomatic trump card absent a final cap-and-trade law" (cited in *Greenwire* 2009d; see also *Greenwire* 2009b; *ClimateWire* 2009b).

Even if there are options for greenhouse gas emissions regulations that lie within the jurisdiction of the executive branch, Obama's international climate ambitions nevertheless require congressional approval. Obama's stated position is a hard law approach in which the U.S. joins an international climate treaty with mandatory and binding emissions reduction commitments. Such an international commitment requires two-thirds senatorial support. Further, given the provisions of the U.S. constitution, notably that a ratified international treaty has the status of "the supreme law of the land", it is difficult to see how membership in an international climate treaty can be achieved in the absence of federal climate legislation (see also section 2, above). To understand the political opportunity space in this issue area, therefore, we need to look at the decision-making system and the distribution of interests in Congress.

4 The political opportunity space for federal climate legislation in Congress¹⁹

A lot of popular and academic attention has been given to the driving forces for a more ambitious U.S. climate policy at local, state and congressional levels (see, for instance, Bang et al. 2007; Hovi and Skodvin 2008; Lutsey and Sperling 2007; Rabe 2004; 2007; 2008; Rabe et al. 2006; Selin and VanDeveer 2007). Less attention has been directed towards the opposition that policy change in this issue area faces (Fisher 2004; 2006; Van Asselt et al 2009 are notable exceptions). To understand the political opportunity space in this issue area, at least three factors are important: 1) the rules guiding U.S. decision-making and legislation, 2) the natural resource base that fuels the U.S. and state economies, and 3) the distribution of interests in the congressional climate debate.

4.1 The U.S. legislative system

The U.S. legislative system is characterised by two supermajoritarian procedures (Krehbiel 1998; Lowi and Ginsberg 1998; Fiorina et al. 2004): First, the *executive veto* implies that the president can prevent policy change by vetoing legislative initiatives by Congress. To override a presidential veto two-thirds majority in both chambers of Congress is required. Second, the *Senate's filibuster procedure* allows individual senators to talk for as long as they like. This has become a much-used technique to halt the legislative process on issues where the senator in question opposes the proposed legislation but lacks the support to win a vote (in a simple majority of 51 votes). The Senate majority can end filibuster by adopting a cloture motion, which requires the support of a qualified majority of three-fifth of the senators (i.e. 60 of 100 senators). Thus, a minority of 41 senators can block a motion to invoke cloture and thus policy change (Fiorina et al. 2004). As pointed out by *The Economist*, the filibuster mechanism implies that "if the least-populous states ganged together, senators representing 11% of the population could theoretically thwart the will of the 89%" (*The Economist* 2008: 78).

The U.S. legislative system, therefore, is designed to bias the status quo. Policy change is particularly difficult in an issue area characterised by continuous discord, such as the climate issue. The conflicts over climate policies in the U.S. are strongly associated with the resource base that fuels the U.S. economy, which we turn to now.

4.2 The natural resource base of the U.S. economy

¹⁹ The research cut-off date for this section was 24 April 2009.

The U.S. economy is fuelled by vast resources of coal, oil, and natural gas and the infrastructure of society builds on the premise that energy resources, primarily fossil fuels, are plentiful and cheap (Fisher 2006).²⁰ Whereas the U.S. controls approximately 2 percent of the world's proven oil reserves (2005),²¹ it is the world's third largest oil producer (2006).²² Even more significant is its vast coal resources: With its 29 percent share of world estimated recoverable coal reserves in 2005, only Asia and Oceania (31 percent, of which China controls roughly 40 percent) have larger coal reserves than the U.S..²³ More than half of U.S. electricity is produced from coal (EIA 2009) and in 2007 coal represented 23 percent of primary energy consumption in the U.S.²⁴

Whereas more than 80 percent of U.S. oil reserves are concentrated in four states; Texas, Alaska, California and Louisiana (in that order), U.S. coal reserves are distributed among 26 states (Fisher 2004, p. 117). This implies that 52 senators represent constituencies whose welfare to a small or large extent is linked to the production of coal. If we add the U.S. car industry and, particularly, the states that depend on imports of coal-based electricity from other states to provide their populations with power, the economy in well over half of the U.S. states would be affected by policies and measures to reduce greenhouse gas emissions.

4.3 The distribution of interests in the congressional climate policy debate

This distribution of resources generates a significant geographical dimension in conflicts over climate policies in the U.S. Analysing the Senate's vote in summer 2003 on the Climate Stewardship Act proposed by Senators McCain and Lieberman, Fisher explores the relationship between natural resource dependence and voting behaviour. Her findings suggest that "senators from resource-dependent states were significantly more likely to vote against the bill than those from non-extracting states" (Fisher 2006, p. 484; see also Román and Carson 2009). The relationship was particularly strong for coal extraction: "None of the 14 senators who supported the act came from states with significant coal dependence" (Fisher 2006, p. 485). These findings are supported by Bang, who also shows that this voting behaviour has been relatively consistent across climate-related decisions since the early 1990s (Bang 2009). The results indicate that even if the ideological dimension of the climate issue is strong in the U.S., the geographical dimension – i.e., whether senators represent oil- or coal-producing states – significantly increases the likelihood of voting no to climate-related legislation, regardless of party affiliation (Bang 2009; see also *The New York Times* 2009).

The bipartisan aspect of U.S. climate policies is also indicated in a letter ten Democratic senators sent Senate majority leader, Harry Reid, and Senate Environment and Public Works Committee Chair, Barbara Boxer, when the Lieberman-Warner Climate Security Act of 2008 (as amended in the nature of a substitute by senator Boxer) was discussed by the U.S. Senate in June 2008 (see also Van Asselt et al. 2009). The senators expressed their "concerns with the bill that is currently before the Senate" and concluded that they "cannot support the final passage of the Boxer Substitute in its current form" (*E&E News PM* 2008). Seven of the ten senators that signed the letter represented coal-producing states while two represented the car-producing state of Michigan. The letter stated that one of their motivations for writing the letter was their role as "Democrats from regions of the country that will be most immediately affected by climate legislation" (ibid.).

The relationship between coal extraction and opposition to climate legislation, however, is reinforced by party affiliation in the sense that the strongest opponents to climate legislation in the

²³ Energy Information Administration, *International Energy Annual 2006*, retrieved January 31, 2009 from

²⁰ Personal communication by Skodvin with staff in the House Energy and Commerce Committee, November 2008.

²¹ Energy Information Administration, http://tonto.eia.doe.gov/country/index.cfm?view=reserves, retrieved January 31, 2009.

²² Energy Information Administration, http://tonto.eia.doe.gov/country/index.cfm, retrieved January 31, 2009.

http://www.eia.doe.gov/emeu/international/contents.html. For a more detailed account of the U.S.'s fossil fuel resources, see, for instance, Fisher (2004; 2006).

²⁴Energy Information Administration, retrieved January 31, 2009 from http://www.eia.doe.gov/emeu/aer/overview.html.

U.S. are republicans from coal-extracting regions. An analysis undertaken by *Greenwire* indicates, for instance, that the electoral support for Obama in the Appalachian coal region was no higher than it was for the two previous Democratic candidates, John Kerry (2004) and Al Gore (2000). Interestingly, the analysis indicates that Obama even received less electoral support than the two previous Democratic candidates in most coal counties of states where Obama's overall results were better than for any Democratic presidential candidate in a long time: Obama is the first Democratic presidential candidate to win Virginia and Ohio in 40 and 16 years, respectively. Yet, in Virginia's 9th District, which is responsible for all of the state's coal production, Obama lost by an almost 20 percent margin according to the analysis. In Ohio, Obama lost the two biggest coal-producing counties and was tied in the third-biggest (*Greenwire* 2008a). Similar trends were identified also in Pennsylvania, West Virginia and Kentucky. Notable exceptions to this trend were Indiana and Illinois (ibid.). The *Greenwire* reporter concludes: "The reluctance of coal-region voters to embrace Obama may signal trouble for the [President] in selling proposals for changing the nation's energy economy and addressing climate change. More importantly, it may spell trouble for lawmakers whose political fortunes rest on support from those regions" (ibid.).

The geographical dimension of U.S. climate policy is important for understanding the political opportunity space in this issue area, because it represents a more or less constant feature of climate policy decision-making. Thus, even though democrats strengthened their position significantly in the 2008 elections, the political opportunity space on climate policy is not radically different from the 110th (2006–2008) to the 111th (2009–2011) Congress. This is for instance indicated in *E&E Daily*'s analysis of the climate positions of the 100 senators of the 111th Congress (*E&E Daily* 2009b: see also *ClimateWire* 2009c). According to the analysis, 43 senators have not yet decided on their position: 12 are identified as 'Probably yes' votes, 10 as 'Probably no' votes and 21 are identified as 'Fence sitters'. Coal-states are heavily represented: Of the total group of 43 undecided senators, 27 (i.e., ca 63 percent) represent coal-producing states. If we only look at the 21 'fence sitters' the trend is even stronger with 15 (i.e., ca 71 percent) of the group representing coal-producing states. The group of undecided senators is bipartisan, with a slightly stronger Democratic representation: 24 (i.e., 56 percent) of the total group of undecided senators are democrats.

The resource base of the U.S. economy, therefore, appears to be a significant explanatory factor of U.S. climate policies in general and the gridlock characterising the domestic debate in particular. While many senators currently support more ambitious climate policies, the minority most affected by climate legislation is empowered by its filibuster capacity and can block policy change in this issue area. Thus, the significance of the geographical conflict dimension in the U.S. climate debate is reinforced by a legislative system that biases status quo.

Yet, observers believe that the U.S. indeed will adopt federal climate legislation during the second session of the 111^{th} Congress (2010) (Selin and VanDeveer 2007; Román and Carson 2009).²⁵ The compromises needed to enable such an outcome are assumed to be linked, for instance, to intensified research and development of 'clean coal technology', notably technology to capture and sequester CO₂ emissions from the burning of coal for electricity production. In this perspective, it is interesting to note that funding to help accelerate commercial-scale use of CCS had a prominent place both in the economic stimulus bill signed by President Obama in February 2009 (Román and Carson 2009) and the draft climate bill that was released in the House by representatives Waxman and Markey in March 2009 (*E&E Daily* 2009c). Moreover, senators who stand to lose the most from greenhouse gas regulations urge a slower-paced approach than the one signalled by the president in his election campaign (*The New York Times* 2009). A compromise may thus be reached by modifying the short-term greenhouse gas emissions reduction targets for 2020, thereby providing more time for the transition to a less carbon-intensive economy.²⁶

²⁵ Personal communication by Skodvin with staff and advisors in both the House of Representatives and the Senate in November 2008.

²⁶ This is a viewpoint that was expressed by all interviewees Skodvin met with in November 2008. For a full list of the interviewees' institutional affiliations, see References. See also Samuelsohn and Geman 2009; Samuelsohn 2009c.

5 Implications for the U.S. international climate strategy

Even if the 60-vote limit of the Senate is reached and federal legislation is adopted, the stretch from the 60 votes required for federal legislation to the 67 votes required for ratification of an international treaty may be long (*Greenwire* 2008b). One of the sticky points is developing country participation.

As discussed above, developing country participation has been a key concern in the U.S. climate debate since the mid-1990s. First, there is widespread concern that a domestic program to limit greenhouse gas emissions will have adverse effects on the competitiveness of U.S. industry. In particular, U.S. decision-makers are concerned that U.S. energy-intensive industries could face higher costs under a domestic greenhouse gas program that would put them at a disadvantage in their global competition with industries not subjected to similar regulations (particularly China) (see, for instance, van Asselt et al. 2009). Second, given that greenhouse gas emissions increase at a faster rate in China and India than anywhere else in the world (see, for instance, Raupach et al. 2007), a climate treaty that does not impose restrictions on these emissions will not be effective in terms of mitigating the climate problem. Some of the main arguments underlying the Bush administration's initiation of and membership in the APP thus still enjoy broad support in the domestic U.S. climate debate (see section 3.2).

Obama has taken care to distance himself from President Bush's policies in almost all policy areas, including climate change. Both the APP and the Major Economies Initiative are true-born children of the Bush administration and may thus be difficult for Obama to embrace. On the other hand, however, an international agreement with quantitative greenhouse gas emissions control targets for developing countries is not imminent. During the 14th meeting of the Conference of the Parties to the UNFCCC (COP-14) in Poznan in December 2008, developing countries were reluctant even to endorse a 'shared vision' for a long-term emission goal (*ClimateWire* 2008a). It is thus interesting to note that the Obama administration launched its own "Major Economies Forum on Energy and Climate" in March 2009, with an aim to "facilitate candid dialogue among key developed and developing countries, help generate the political leadership necessary to achieve a successful outcome at the UN climate change negotiations that will convene in Copenhagen, and advance the exploration of concrete initiatives and joint ventures that increase the supply of clean energy while cutting greenhouse gas emissions".²⁷ While no substantive outcomes were achieved at the Forum's first meeting in April 2009, it was hailed by participants as a trust-building exercise where "the free-flowing exchange among nations on climate was a key accomplishment in itself" (*ClimateWire* 2009d).

Scholars of international negotiations have since long established that the more parties that are involved in a negotiation process, the more difficult it tends to be to find common ground and develop agreement. Reducing the number of parties to negotiations, therefore, is a much-used strategy to facilitate agreement (Sebenius 1983). Given the Bush administration's low credibility in climate policies, however, the APP and the Major Economies Initiative were seen as efforts to side-track rather than supplement the formal negotiation process taking place under UN sponsorship (see section 3.2, above). Obama, on the other hand, has already acquired higher credibility in climate policies. In this setting, Obama's Major Economies Forum is likely to have more credibility as a sincere strategy to reach acceptable compromises with an aim of more effective climate change mitigation and could thus acquire a more important function as an informal and much-needed supplement to the UN process than Bush's initiative ever did (Andresen and Skodvin 2009).

²⁷ White House press release: "President Obama announces launch of the Major Economies Forum on Energy and Climate". The White House, Office of the Press Secretary, 28 March 2009. Retrieved April 1, 2009 from http://www.whitehouse.gov/the_press_office/President-Obama-Announces-Launch-of-the-Major-Economies-Forum-on-Energy-and-Climate/.

Awaiting an international agreement, moreover, some of the basic ideas of the APP may also still have a role to play.²⁸ A key feature of the APP is its sectoral approach.²⁹ Task forces covering eight sectors constitute the 'backbone' of the partnership.³⁰ Action plans have been developed for each sector outlining more than 150 projects initiated to achieve the Partnership's objectives.³¹ No sectoral targets are set in the action plans, but some, for instance the action plans for steel and cement, "seek to identify benchmarks and performance indicators" (van Asselt 2007, p. 21). The APP is not the only, but the most comprehensive, sectoral approach that has emerged during recent vears. Other examples include industry initiatives in which individual sectors (aluminium, cement, iron and steel) collaborate across countries for information-gathering purposes, monitoring and benchmarking, as well as the establishment of voluntary emissions reductions goals within each sector.³²

Although not part of an international strategy, the EPA had worked with sectoral approaches as a strategy to improve the environmental performance of U.S. industry for quite some time. In 2000, the EPA launched its "Sector Program Plan" for 2001–2005, which subsequently has been followed up by sector performance reports at regular intervals (EPA 2000). Sectoral approaches as a means of inducing, for instance, public-private partnerships to enhance environmental performance was thus not new in U.S. environmental management.³³

Since 2005, sectoral approaches have received increased attention from intergovernmental organisations such as OECD, G8 and IEA and is also specifically mentioned in the Bali Action Plan (UNFCCC 2007; CEPS 2008; Meckling and Chung 2009). In the ongoing post-Kyoto negotiation process, Japan has become a key proponent of a sectoral approach.³⁴ In its 'Cool Earth Promotion Program', ³⁵ Japan suggested to use a sectoral approach to generate (binding) national emissions reduction targets (see also *ClimateWire* 2008b). A softer version of a sectoral approach would be internationally negotiated standards, for instance to limit greenhouse gas emissions per unit produced in specified sectors (Pew Center 2008). The acceptability of the approach to developing countries depends on the extent to which standards are differentiated according to national circumstances (thus respecting the UNFCCC's principle of 'common but differentiated responsibilities') and combined with technological assistance and transfer from developed to developing countries. The acceptability of the approach in the U.S. depends on the extent to which it serves to mitigate competitiveness issues associated with carbon leakage and whether it is combined with domestic measures to compensate energy-intensive industries that are most exposed to international competition (Pew Center 2008; Meckling and Chung 2009).

While the debate on sectoral approaches reflect old contentions between the North and the South, observers believe "it is increasingly likely that some form of sectoral approach will make its way into the future climate regime" (Meckling and Chung 2009, p. 6). Their success, however, depends on the extent to which "parties on both sides of the controversy will consider sector-based

³³ See, for instance, http://www.epa.gov/ispd/index.html, retrieved May 10, 2009.

²⁸ The broader scholarly debate on different "architectures" of a new international climate agreement is not discussed here. For an overview of the various proposals, see Kuik et al. (2008) which summarises contributions published until 2006. For a major contribution after 2006, see Aldy and Stavins (2007).

²⁹ The term refers to "global sectoral industry approaches", i.e., "industry-focused initiatives that aim to engage a sector on a broad international basis" (CEPS 2008, p. 2).

³⁰ 1. Cleaner fossil energy; 2. Renewable energy; 3. Power generation; 4. Steel; 5. Aluminium; 6. Cement; 7. Coal mining; 8. Buildings and appliances. APP Work Plan, retrieved March 6, 2006 from http://www.dfat.gov.au/environment/climate/ap6.

³¹ See http://www.asiapacificpartnership.org/english/project_roster.aspx, retrieved May 10, 2009.

 $^{^{32}}$ Cement Sustainability Initiative sectoral approach to managing CO₂ emissions; the aluminium industry's global

sectoral approach to climate change; the proposal for a global sectoral approach to climate change for the steel industry. For more details, see CEPS (2008). For a typology of sectoral approaches see Meckling and Chung (2009).

³⁴ For a more detailed discussion of the politics of sectoral approaches, see Meckling and Chung (2009).

³⁵ See "View on possible means to achieve mitigation objective", presentation by Shuichi Takano, June 2008. Retrieved January 31, 2009 from

http://unfccc.int/search/search/g=cool+earth&site=default_collection&client=unfccc_frontend&output=xml_no_dtd&p roxystylesheet=unfccc_frontend.

proposals to try to find common ground or use them to further polarize the debate" (Meckling and Chung 2009, p. 25).

The APP may thus constitute a framework within which developing countries may take action on climate change that subsequently may facilitate their membership in an international treaty. In particular, the APP may serve an important function to satisfy the U.S. Congress's demand for developing country action even if developing countries, in a transition period, do not actually commit to economy-wide regulations of greenhouse gas emissions in an international treaty. In this sense, the APP may represent an important juncture on the road to an international agreement that developing countries like China and India as well as the U.S. ultimately can join.

6 Conclusion

President Obama's climate policy agenda represents a shift not only in the policies pursued, but also in which branches of government that are involved in the decision-making process. His ambitions of adopting U.S. federal climate legislation and pursuing U.S. participation in an international treaty to regulate greenhouse gas emissions implies that the distribution of interests in Congress becomes more significant. In Congress, support and opposition to climate change policies is strongly linked to the distribution of the natural resources that fuel the economy at both federal and state levels. In particular, representing a coal- or oil-extracting state enhances the likelihood that elected officials oppose more ambitious climate policies. This geographical dimension constitutes a more or less constant feature of the U.S. climate policy debate. To succeed in his ambitions, therefore, President Obama must break the enduring gridlock characterising congressional debate in this issue area by designing policies that, through compromise and compensation, can mobilise the support of oil- and coal-state representatives in the Congress.

Obama has made a pledge to his U.S. voters as well as the international community to make the U.S. a leader in international efforts to mitigate climate change. This implies a stronger U.S. engagement in the UN-based climate negotiation process. In the domestic climate debate, however, U.S. decision-makers are worried that an international agreement that does not include emissions control measures for developing countries like China and India will harm U.S. competitiveness and reduce the environmental effectiveness of an agreement. Developing country participation thus remains a key premise for U.S. membership in a future international climate treaty. Developing countries, however, have indicated that they are not prepared to join an international agreement with binding greenhouse gas emissions control commitments any time soon. In the meantime, the APP and the Major Economies Initiative may serve an important function as informal arenas for negotiation and sector-based cooperation, thus providing a much-needed supplement to the UNbased negotiation process. In this sense, the APP and the Major Economies Initiative may continue to play a role as vehicles to bridge positions on some of the most contentious issues in the international climate negotiations, ultimately potentially enabling membership in a future international climate treaty for both the U.S. and developing countries like China and India.

Acknowledgements We are grateful to Aubrey Spilde, who did a lot of very useful background research on the Asia-Pacific Partnership on Clean Development and Climate (APP) during her stay at the Fridtjof Nansen Institute in 2006. We also gratefully acknowledge useful comments to earlier drafts from Jon Hovi, guest editors Harro van Asselt and Sylvia Karlsson and two anonymous reviewers.

References

Abraham, S. (2004). The Bush administration's approach to climate change. Science, 305, 616-617.

Agrawala, S., & Andresen, S. (1999). Indispensability and indefensibility? The United States in the climate treaty negotiations. *Governance*, *5*, 457-482.

- Aldy, J. E., & Stavins, R. N. (Eds.) (2007). Architectures for agreement: Addressing global climate change in the post-Kyoto world. Cambridge: Cambridge University Press.
- Andresen, S., & Skodvin, T. (2009). The climate regime: achievements and challenges. In: P.J. Schei, & D. Vidas (Eds.), *The world ocean in globalisation: Challenges and responses*. Leiden: Martinus Nijhoff/Brill.
- Bang, G. (2009). Does public policy set the scope for U.S. international climate negotiation mandates? Paper presented at the 50th ISA Annual Convention in New York, NY, 15-18 February 2009.
- Bang, G., Froyn, C. B., Hovi, J., & Menz, F. (2007). The United States and International Climate Cooperation: International 'pull' versus Domestic 'push'. *Energy Policy*, 35(2), 1282-1291.
- Bensinger, K., & Tankersley, J. (2009, January 26). Obama clearing way for California emissions waiver. Los Angeles Times. Retrieved January 28, 2009, from http://www.latimes.com/news/science/environment/la-na-emissions26-2009jan26,0,5256881.story.
- Broder, J. M. (2009, January 27). Geography is dividing democrats over energy. *The New York Times*. Retrieved January 29, 2009, from http://www.nytimes.com/2009/01/27/science/.
- CEPS (2008). *Global sectoral industry approaches to climate change: The way forward.* CEPS Task Force Report. Brussels: Centre for European Policy Studies.
- Chinkin, C. M. (1989). The challenge of soft law: development and change in international law. *International and Comparative Law Quarterly*, *38*(4), 850-866.
- EIA 2009. Annual energy outlook 2009: Early release overview. Washington, D.C.: Energy Information Administration. Retrieved January 31, 2009 from http://www.eia.doe.gov/oiaf/aeo/index.html.
- EPA 2000. EPA sector program plan 2001–2005. Washington, D.C.: U.S. Environmental Protection Agency, Office of Policy, Economics, and Innovation.
- Fiorina, M. P., Peterson, P. E., & Voss, D. S. (2004). America's new democracy. New York: Pearson Longman.
- Fisher, D. (2004). National governance and the global climate change regime. Lanham: Rowman & Littlefield.
- Fisher, D. (2006). Bringing the material back in: understanding the U.S. position on climate change. *Sociological Forum*, *21*(3), 467-494.
- Following Australia conference, nations pledge nearly \$445M in programs. (2006, January 12). *E&E News PM*. Retrieved January 26, 2009, from http://www.eenews.net/eenewspm/print/2006/01/12/5.
- Friedman, L. (2008, December 2). Developing countries want to go slow with 'shared' climate vision. *ClimateWire*. Retrieved February 6, 2009, from http://www.eenews.net/climatewire/print/2008/12/02/2.
- Friedman, L. (2009, April 29). Climate negotiators engage in trust building. *Climate Wire*. Retrieved May 20, 2009, from http://www.eenews.net/climatewire/print/2009/04/29/4.
- Geman, B. (2009, April 1). Waxman bill boosts CCS but will coal-state members smile? *E&E Daily*. Retrieved April 1, 2009, from http://www.eenews.net/EEDaily/print/2009/04/01/1.
- Hovi, J., & Skodvin, T. (2008). Which way to U.S. climate cooperation? Issue linkage versus a U.S.-based agreement. *Review of Policy Research*, 25(2), 129-148.
- IEA (1997). Voluntary actions for energy-related CO₂ abatement. Paris: International Energy Agency.
- Kaplun, A. (2008, November 13). Do Obama's struggles in coal country foretell problems for his energy agenda? Greenwire. Retrieved November 18, 2008, from http://www.eenews.net/Greenwire/print/2008/11/13/4.
- Krehbiel, K. (1998). Pivotal politics: A theory of U.S. lawmaking. Chicago: The University of Chicago Press.
- Kuik, O. J., Aerts, J., Berkhout, F., Biermann, F., Bruggink, J., Gupta, J. & Tol, R. S. J. (2008). Post-2012 climate policy dilemmas: a review of proposals. *Climate Policy*, 8, 317-336.
- Laws, J. L. (2006, July 12). Bush advisors go head-to-head with lawmakers on climate change policies. *E&E Daily*. Retrieved May 24, 2008, from

http://www.eenews.net/EEDaily/2002/07/12/archive/1?terms=climate?change?initiative.

- Leber, J. (2009a, May 19). EPA prodded to act on climate endangerment finding. *ClimateWire*. Retrieved May 20, 2009, from http://www.eenews.net/climatewire/print/2009/05/19/4.
- Leber, J. (2009b, April 15). EPA climate regulation would give U.S. more leverage for international talks. *ClimateWire*. Retrieved April 15, 2009, from http://www.eenews.net/climatewire/print/2009/04/15/3.
- Lowi, T. J., & Ginsberg, B. (1998). American government: Freedom and power. New York: W. W. Norton & Company.

Lutsey, N., & Sperling, D. (2008). America's bottom-up climate change mitigation policy. Energy Policy, 36, 673-685.

- Marshall, C. (2009, January 7). Fresh Senate faces may not be quite enough to pass climate bill. *ClimateWire*. Retrieved March 26, 2009, from http://www.eenews.net/climatewire/print/2009/01/07/2.
- McGee, J., & Taplin, R. (2006). The Asia–Pacific Partnership on Clean Development and Climate: A Complement or Competitor to the Kyoto Protocol? *Global Change, Peace & Security, 18*(3), 173-192.
- McGee, J., & Taplin, R. (2008). The Asia-Pacific Partnership and the United States' International Climate Change Policy. *Colorado Journal of International Environmental Law and Policy*, *19*(2), 179-218.
- Meckling, J. O., Chung, G. Y. (2009). Sectoral approaches to international climate policy. A typology and political analysis. Discussion Paper 2009-02, Cambridge MA: Belfer Center for Science and International Affairs.

- Morello, L. (2007, April 5). Supreme Court ruling bolsters case for legislation, Dems say. *E&E News PM*. Retrieved January 29, 2009, from http://www.eenews.net/eenewspm/print/2007/04/02/1.
- Nation pushes for 'bottom-up' approach that includes U.S., China. (2008, March 18). *ClimateWire*. Retrieved June 6, 2008, from http://www.eenews.net/climatewire/print/2008/03/18/2.
- Pew Center (2008). Addressing competitiveness in U.S. climate change policy. Congressional Policy Brief, Pew Center on Global Climate Change. Retrieved January 31, 2009 from http://www.pewclimate.org/DDCF-Briefs/Competitiveness.
- Rabe, B. G. (2004). *Statehouse and greenhouse: The emerging politics of American climate change policy*. Washington D.C.: Brookings Institution Press.
- Rabe, B. G. (2007). Environmental policy and the Bush era: the collision between the administrative Presidency and state experimentation. *The Journal of Federalism*, *37*(3), 413-431.
- Rabe, B. G. (2008). States on steroids: the intergovernmental odyssey of American climate policy. *Review of Policy Research*, 25(2), 105-128.
- Rabe, B. G., Roman, M., & Dobelis, A. N. (2006). State competition as a source driving climate change mitigation. *New York University Environmental Law Journal*, *14*(3), 1-53.
- Raupach, M. R., Marland, G., Ciais, P., Le Quéré, C., Canadell, J. G., Klepper, G., & Field, C. (2007). Global and regional drivers of accelerating CO₂ emissions. *Proceedings of the National Academy of Sciences (PNAS)*, 104(24): 10288-10293.
- Román, M. and M. Carson (2009). *Sea change: U.S. climate policy prospects under the Obama administration*. Report by the Swedish Commission on Sustainable Development, March 2009.
- Samuelsohn, D. (2006a, June 9). White House pushes to restore Asia-Pacific funding. *E&E Daily*. Retrieved January 26, 2009, from http://www.eenews.net/EEDaily/pring/2006/06/09/1.
- Samuelsohn, D. (2006b, June 14). House panel gives Asia-Pacific effort \$4M, symbolic victory. *E&E News PM*. Retrieved January 26, 2009, from http://www.eenews.net/eenewspm/print/2006/06/14/3.
- Samuelsohn, D. (2006c, April 17). U.S. to host Asia-Pacific partnership this week. *Greenwire*. Retrieved January 26, 2009, from http://www.eenews.net/Greenwire/print/2006/04/17/1.
- Samuelsohn, D. (2006d, June 29). Senate panel funds Asia-Pacific partnership. *Greenwire*. Retrieved January 26, 2009, from http://www.eenews.net/Greenwire/print/2006/06/29/5.
- Samuelsohn, D. (2008a, June 6). Key senate democrats list concerns with dead emissions bill. *E&E News PM*. Retrieved December 7, 2008, from http://www.eenews.net/eenewspm/2008/06/06/1/.
- Samuelsohn, D. (2008b, December 11). Senate rules hover over post-Kyoto treaty talks. *Greenwire*. Retrieved January 31, 2009, from http://www.eenews.net/Greenwire/print/2008/12/11/6.
- Samuelsohn, D. (2009a, January 26). Obama to make White House punch on Calif. waiver, CAFE rules. *E&E Daily*. Retrieved January 28, 2009, from http://www.eenews.net/EEDaily/print/2009/01/26/1.
- Samuelsohn, D. (2009b, February 10). Senate cap-and-trade boosters still searching for path to 60 votes. *E&E Daily*. Retrieved March 13, 2009, from http://www.eenews.net/EEDaily/print/2009/02/10/1.
- Samuelsohn, D. (2009c, April 24). Talks intensify in search for committee win on emissions bill. *E&E Daily*. Retrieved April 24, 2009, from http://www.eenews.net/EEDaily/print/2009/04/24/1.
- Samuelsohn, D. (2009d, January 27). Obama to turn next to Supreme Court ruling, endangerment finding. *Greenwire*. Retrieved January 29, 2009, from http://www.eenews.net/Greenwire/print/2009/01/27/1.
- Samuelsohn, D. (2009e, January 5). Bush admin rejects bid to unseal EPA endangerment finding. *Greenwire*. Retrieved January 29, 2009, from http://www.eenews.net/Greenwire/2009/01/05/4/.
- Samuelsohn, D., & Bravender, R. (2009, April 2). EPA holds trump card in U.S. emissions debate. *Greenwire*. Retrieved April 3, 2009, from http://www.eenews.net/Greenwire/print/2009/04/02/1.
- Samuelsohn, D., & Geman, B. (2009, April 22). Moderate Dems lay out concerns with draft energy and commerce bill. *E&E Daily*. Retrieved April 22, 2009, from http://www.eenews.net/EEDaily/print/2009/04/22/1.
- Sebenius, J. K. (1983). Negotiation arithmetic: adding and subtracting issues and parties. *International Organization*, 37(2), 281-316.
- Selin, H., & VanDeveer, S. (2007). Political Science and Prediction: What's Next for U.S. Climate Change Policy? *Review of Policy Research*, 24(1), 1-27.
- Shenanigans and seriousness. (2008, December 20). The Economist (p. 78).
- Sins of emission. (2009, March 12). The Economist. Retrieved April 14, 2009, from www.economist.com.
- Skjærseth, J. B., & Skodvin, T. (2003). *Climate change and the oil industry: Common problem, varying strategies.* Manchester: Manchester University Press.
- The Climate Institute (2006). *First progress report on the Asia-Pacific Partnership on Clean Development and Climate*. The Climate Institute, April 2006.
- UNFCCC (2007). Decision 1/CP.13, paragraph 1(b)(iv), FCCC/CP/2007/6/Add.1. Retrieved August 29, 2008 from http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf#page=3.

- van Asselt, H. (2007). From UN-ity to diversity? The UNFCCC, the Asia-Pacific Partnership, and the future of international law on climate change. *Carbon and Climate Law Review*, 1(1), 17-28.
- van Asselt, H., Brewer, T., & Mehling, M. (2009). Addressing leakage and competitiveness in US climate policy: Issues concerning border adjustmenst. Working Paper, March 2009. Cambridge, UK: Climate Strategies.
- Victor, D. (2004). *Climate change: Debating America's policy options*. A Council Policy Initiative, Council on Foreign Relations.
- Voorhees, J. (2009, March 27). Obama finalizes 8% CAFE' hike for 2011 models. *Greenwire*. Retrieved April 29, 2009, from http://www.eenews.net/Greenwire/print/2009/03/27/2.
- WRI (2009). Climate Analysis Indicators Tool (CAIT) Version 6.0. Washington, D.C.: World Resources Institute, 2009. Retrieved April 15, 2009 from http://cait.wri.org/.