

Fragmentation: Bane or Blessing?

Global Energy Policy in Multiple Arenas

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Abstract:

Our knowledge of forum shopping in global governance shows that strategic inconsistencies between the arenas in which global policy is made provides opportunities for both state and non-state actors to influence outcomes. This paper will examine the fate of an agenda of the US to limit financing of coal-based electricity generation construction in the World Bank and the OECD – through the adoption of a Directions Statement in the Bank and a Sector Understanding on Export Credits for Coal-Fired Electricity Generation Projects agreed to by the Participants to the Arrangement on Officially Supported Export Credits in the OECD.

The OECD decision to restrict the use of finance for coal stations using Export Credit Agencies (ECAs) was perhaps the more significant, as greater amounts of financing have been provided for coal-fired power stations by ECAs than by the Bank. The US prevailed in the Bank but in the OECD, after opposition from Japan, Korea, Australia and others, the decision allowed the continued use of Export Credits to fund coal stations if they were High Efficiency Low Emissions (HELE) — with further exemptions for Least Developed Countries.

As HELE stations represent the dominant type planned or under construction in the Asia-Pacific, the OECD outcome was a significant win for interests in the region and a defeat for the US and the environmental and natural gas interests that had persuaded the US to adopt this position. And as ultrasupercritical coal plant (at 45% efficiency) offers substantial mitigation opportunities when it replaces conventional plant (global average 33% efficiency, with approximately 2% emissions reduction for every 1% efficiency gain), the provision for HELE plant in the OECD decision promises to progress the joint goals of greenhouse gas mitigation and economic development.

This paper will show that the two outcomes reflect the different characteristics of the two arenas, especially voting rules. It suggests that fragmentation of global policy making into different arenas provides opportunities for actors at a disadvantage in one arena to counter the quasi-hegemonic influence of others in different arenas.

The global governance of energy is fragmented. The International Energy Agency (IEA), co-located with and a kindred organization of the OECD plays an important part in the regime complex covering energy, but it is restricted in membership, largely including consumers, which reflects its origins in the aftermath of the 1973 oil crisis as a response to OPEC, and especially OAPEC (Florini 2011; Dubash & Florini 2011; Florini & Sovacool, 2009; Van de Graaf & Colgan 2016).

While there is no formal world energy organization, several are responsible for issues relating to energy use and trade, including the OECD, the Nuclear Energy Agency (NEA), International Atomic Energy Agency (IAEA), World Bank Group, and WTO, and several Informal International Organisations (IIOs) such as the G7/8, G20 and APEC often find energy matters on their agendas. In addition, of course, climate change is quintessentially about energy as it impacts energy competitiveness and energy security, providing additional justification for policies that advantage particular energy sectors and reinforce the need for high taxes, introduced to improve energy security and not always popular.

This fragmentation seems to be a problem for many scholars and political commentators. (For a review, see Van de Graaf & Colgan, 2016). There seems to be a reluctance to allow global governance to occur through a multiplicity of more limited agreements due to concern about the proliferation of bilateral and regional agreements, and their restricted subject matter. However, as the increasing use of bilateral and plurilateral trade agreements after the creation of the WTO showed, multiple limited agreements can be a useful alternative to multilateralism. Indeed, in surveying numerous multilateral environmental agreements, David Vogel (1997) once observed that those that had been the most successful appeared to be the most limited in scope — both in geography and subject matter. Yet many advocates of environmental policy action seem to be especially optimistic about the holism that is a feature of ecological science: fragmentation, duplication, overlap, pluralism, multiple arenas and multi-level governance all seem anathema to a growing cohort of environmental policy advocates.

What is often overlooked is that fragmentation is both necessary — since all tasks of governance must be decomposed into more manageable chunks — and not entirely problematic. Decomposition into manageable tasks is unavoidable in any level of governance, but immediately creates problems of coordination and integration. Fragmentation and the dispersion of tasks to different arenas of governance and, indeed, to different levels of governance, however, also creates dynamism and opportunities for forum shopping, which can assist *or* hinder the development of governance regimes (Kellow, 2012; Murphy and Kellow, 2013; 2016). Fragmentation can therefore provide opportunities to assist with the development of global policy instruments that go beyond lowest common denominator approaches, overcoming Underdal's 'Law of the Least Ambitious Program' and develop them more rapidly than is suggested by the analogy that international negotiations can proceed only at the pace of the most unwilling, like a convoy that can travel only at the speed of the slowest ship.

This maritime analogy is apposite. Maritime governance exhibits a messiness that offends those seeking unitary control. In addition to the Law of the Sea Convention, there are numerous issue-specific multilateral agreements such as MARPOL, the International Convention for the Regulation of Whaling, the London Dumping Convention, numerous relevant geographically-specific multilateral agreements (Antarctic Treaty, CCAMLR), regional seas agreements (for the Mediterranean, North Sea, Baltic, and so on), and numerous more limited agreements governing polar bears, fish stocks, albatrosses and petrels, and so on. When we add many national policies (on matters like coastal zone management and cabotage) and that international agreements and organizations also have some relevance for maritime governance (the work on

shipping in the OECD, for example), we can see that there is considerable complexity and seeming disorder.

As this example suggests, issues of overlap, duplication, fragmentation, redundancy, forum shopping, side payments and linkage are common in discussing governance across multiple arenas at multiple levels. Neither does this suggest that fragmentation is necessarily a problem – though it can be – but such problems confront all systems of governance, even unitary national governments, as they must decompose problems and allocate them to different agencies and divisions within agencies and then (with greater or lesser success) reintegrate them into a whole-of-government response to connected problems. As Christopher Hood (1976) pointed out many years ago, there is always potential for multi-organizational sub-optimization, but there is value, too, in decentralized systems like markets and ecosystems over centralized, unitary systems, with markets and ecosystems providing obvious examples where diversity and negative feedback mechanisms offer advantages in adaptiveness and stability over central governing agencies (Landau, 1991).

It should also be noted that fragmentation rather than integration to achieve policy coherence sometimes occurs deliberately, since decomposition to different agencies allows inconsistent policies to appeal to different constituencies. The European Commission, for example, historically pursued strong action on climate change in one Directorate while continuing coal subsidies through another, and supported both biodiversity conservation and aggressive fishing activities. But, leaving aside the political advantages of fragmentation, it is not clear that eliminating it would be a desirable state of affairs. As Jeremy Richardson (1981: 49) once noted in relation to the governance of Norwegian off-shore oil resources, rather than avoiding duplication among public bureaucracies, we should perhaps encourage it, because removing duplication creates a monopolistic bureaucracy which can then exploit the ‘market’ for policy advice. Martin Landau (1969, 1991) has pointed out, ‘duplication and overlap’ can in fact bring advantages from what communications theorists refer to as redundancy. Redundancy brings insurance against the risk that one organization might overlook or deliberately neglect some issue, and against the possibility that (if a single agency enjoys a monopoly in the provision of advice) decision-makers might be provided with low quality information.

Single, monopolistic institutions are all very well if they can only be persuaded to act, but diversity provides opportunities: multiple arenas provide opportunities for the development of global policy that would be absent if we were to await decisions from single, large monopolistic arenas. Different arenas provide different opportunities for action. Size matters. George F. Kennan, a long-serving US diplomat, is credited with the insightful aphorism that the unlikelihood of any negotiation reaching agreement grows by the square of the number of parties taking part. In other words, the quality of international policy can be improved with multiple, smaller arenas, because smaller arenas are less subject to lowest common denominator problems and need rely less on strategies such as creative ambiguity that cruel the chances for successful outcomes by contributing to vertical disintegration. There is ample evidence that actors adopt the strategy of selecting arenas for political action according to how propitious they are for their agendas – even on occasion creating them especially for the purpose (forum shopping).¹

¹ We have discussed this at length elsewhere (Kellow, 2012; Murphy and Kellow, 2013; 2016), but see also: Davis, 2000; Dudley and Richardson, 1996; Guiraudon, 2000; Hansen and Krejci, 2000; Helfer, 2009; Lachowski, 1998; Myer-Bisch, 2001; Sheingate, 2000; Smythe, 1998; Tarullo, 2000; Wendon, 1998.

The example of the maritime regime complex (above) is not atypical, and so there is a legitimate question to be asked as to why we should expect a single regime for energy. Oran Young (1996: 1) once pointed out that most issue-specific regimes in fact exhibit complex linkages to other institutional arrangements, and that the institutional interactions arising from these have important consequences for the outcomes flowing from each of the affected regimes. Young went on to describe four types of linkages (embedded institutions, nested institutions, clustered institutions, and overlapping institutions), suggesting the importance of forum shopping by noting that, with embedded institutions, actors ‘desiring to change the basic rules . . . frequently concentrate on the establishment of issue-specific regimes in the hope that they can start trends that will spread to from one issue area to another . . .’ (Young, 1996: 8). In addition, with overlapping institutions, he observed that some overlaps were the products of deliberate actions, the result of efforts on the part of disaffected parties to solve issues associated with the operation of existing regimes by creating new institutions they believed would foster reform in existing regimes or, alternatively, produce more favourable results under new auspices (Young 1996: 13). Young (1996: 13) suggested that ‘these linkages are often subject to conscious manipulation on the part of actors seeking to promote their own ends.’

This discussion leads us to note that, while global energy governance is fragmented into different arenas, the question that needs to be asked is that posed by Prost and Clark (2006) in the subtitle to their paper: ‘How Much Does the Multiplication of International Organizations Really Matter?’ We suggest here that the answer is: not terribly much. We develop our argument by first pointing out just how many arenas have been sites of activity in the development of the climate change regime agreed to in the Paris Agreement, and that the use of these multiple arenas, often chosen or created with a view to particular outcomes, has been largely functional for regime development. We then present two brief case studies of global policy development reflecting attempts by the Obama Administration to progress its ‘Clean Energy Plan’ or ‘War on Coal’ internationally in two arenas: the World Bank and the OECD. While the US succeeded in the Bank, thanks to its quasi-hegemonic position, its attempt to restrict access in the developing world to finance for coal-fired power stations fell short because other actors (Australia, Japan and Korea) were able to protect their interests taking advantage of OECD voting rules. The result was continued support for High Efficiency, Low Emissions coal technology that is being rolled out, especially in the Asia-Pacific, and which offers substantial opportunities for mitigating greenhouse gas emissions from an energy source that is important for the developing world.

Forum Shopping in Global Climate Change Policy

The development of the Framework Convention on Climate Change (FCCC) and its Kyoto Protocol saw extensive use of forum shopping, with conferences of scientists at Villach and Bellagio being reined in by governments wishing to assert control over scientific activism by the establishment of the Intergovernmental Panel on Climate Change (IPCC). Canada embraced the issue, which favoured its interests in CANDU nuclear technology and suited its ambition to export the output from hydroelectric developments like James Bay and Peace River Site C into the US market under a trade agreement, and thus sponsored the Toronto Conference. UNEP Executive Director Mustafa Tolba saw the IPCC as the venue where climate change policy would be developed, but G77 had other ideas and moved the issue the UN General Assembly, where it has dominance, and it established an International Negotiating Committee (INC). The INC lacked analytical capacity, so it made numerous references to the OECD to undertake some important policy analysis to underpin the negotiations.

Turning to the post-Kyoto negotiations, which have seen a proliferation of arenas used and created in leading to the Paris Agreement and a reset of global policy after the failure of Kyoto, we find further fragmentation, and argue that this has been more productive than problematic.

One forum that was created with a view to shaping global climate policy post-Kyoto was the G8+5 Climate Change Dialogue. In 2005 UK Prime Minister Tony Blair, as host of the G8 summit at Gleneagles, invited five emerging countries to join the talks in the hope that this would allow a more inclusive discussion that might help advance the Doha Round of trade negotiations and improve North-South cooperation on climate change. A G8+5 Climate Change Dialogue was then launched on February 24, 2006, by the Global Legislators Organisation for a Balanced Environment (GLOBE) which provided a means for the G8 (the G7 after Russia was expelled in 2014 over its conduct in Crimea) to engage productively on climate change with Brazil, China, India, Mexico, South Africa. GLOBE started as a multi-party group in the UK Parliament and it convened a meeting of the G8+5 Climate Change Dialogue in Washington where a non-binding agreement was reached that developing countries also had to face targets, and that there should be a global system of cap and trade, which they hoped should be in place by 2009 to replace Kyoto (BBC, 2007). GLOBE then launched an International Commission on Climate and Energy Security, comprising senior legislators from each of the major economies, which produced a report adopted by the GLOBE Copenhagen Legislators Forum and submitted to the UNFCCC and leaders of the major economies ahead of COP15 in Copenhagen.

There was some overlap between the memberships of the G8+5 dialogue and the Asia-Pacific Partnership on Clean Development and Climate (APP), with the US, Japan, China and India common to both, to which Canada could be added once it joined. The two groups were merged in an arena known as the Major Economies Meeting, an initiative of the Bush Administration, which was rebadged as the Major Economies Forum on Energy and Climate after the election of Barack Obama in November 2008. This ‘rebirthing’, in which both the UK and Australia conspired, had the advantage of assuaging the concerns of some G77 members who wished to deny Bush success while providing Obama with an early achievement. The APP was disbanded in 2010 with unfinished projects amalgamated into other US-sponsored, climate-related cooperation partnerships.

The MEF also adopted some work programs, initiating a number of Technology Action Plans, spanning ten climate-related technologies that addressed more than 80% of the energy sector CO₂ emissions reduction potential identified by the IEA. While COP-15 in Copenhagen ended in deadlock, the US announced there the establishment of another forum, the Clean Energy Ministerial, with the addition of Chile, Denmark, Finland, Norway, Saudi Arabia, Sweden, and the United Arab Emirates, which met for the first time in Washington in July 2010. The members of the CEM accounted for about 75 percent of global greenhouse gas emissions and 90 percent of global clean energy investment (CEM, 2017).

Another forum was provided by the Carbon Sequestration Leadership Forum (CSLF), a Ministerial-level international climate change initiative that is focused on the development of improved cost-effective technologies for carbon capture and storage (CCS). The CSLF membership (25 countries plus the European Commission) was essentially that of the CEM minus Finland, Sweden, Denmark, Chile, Indonesia and plus Serbia, Romania, Czech, Netherlands. It represented over 3.5 billion people (60% of the world’s population) on six continents and comprised 80% of the world’s total anthropogenic carbon dioxide (CO₂) emissions.

Eighteen of the CSLF members are also members of another group called Mission Innovation, formed after Paris. The members are: Australia; Brazil; Canada; China; the European

Commission; France; Germany; India; Italy; Japan; Korea; Mexico; Netherlands; Norway; Saudi Arabia; United Arab Emirates; United Kingdom; and the United States. Also among the members are those in other forums, but not CSLF: Chile; Denmark; Finland; Indonesia; and Sweden. The 23 members of Mission Innovation at the inaugural Ministerial at San Francisco in June 2016 pledged to double their governmental and/or state-directed clean energy research and development investment over five years.

Much of the work undertaken by the APP, MEF, CEM or CSLF could have been undertaken by the IEA, but the IEA membership does not include key developing countries, and the process of working together on practical solutions was part of the advantage of these fora, which helped build trust, understanding and commitment. They also had the advantage, as far as the US was concerned, that they could be entered into under the executive powers of the president, and so did not have to run the gauntlet of ratification by the US Senate, with the relatively high hurdle of a two-thirds majority. Ultimately, Obama extended this to the Paris Agreement which was not called a treaty and therefore he ratified it without referring it to the Senate – but also leaving it at the mercy of President Trump, who in June 2017 announced the US exit from the Agreement.

The last such move to create an arena to build momentum before Paris was even more intimate and even less formal: the US-China Joint Announcement on Climate Change (White House, 2014). This bilateral *announcement* was made by Presidents Barack Obama and Xi Jinping in Beijing on 12 November 2014 when they announced their respective intended post-2020 actions on climate change, ‘recognizing that these actions are part of the longer range effort to transition to low-carbon economies, mindful of the global temperature goal of 2°C’. The United States stated that it intended to reduce its emissions by 26%-28% below its 2005 level in 2025 and to make best efforts to reduce its emissions by 28%. China intended to reach a peaking of CO₂ emissions around 2030, but to ‘make best efforts’ to peak earlier, and intended to increase the share of non-fossil fuels in primary energy consumption to around 20% by 2030. Both sides also intended to continue to work to increase ambition over time. The two stated that they hoped that by announcing these targets, they could inject momentum into the negotiations and inspire other countries to promise ‘ambitious actions’ as soon as possible, but preferably by the first quarter of 2015. They also resolved to work closely together over the next year to address major impediments to a successful conclusion in Paris.

The US and China are the two largest emitters and two of the world’s largest investors in clean energy and had already established the US-China Climate Change Working Group (CCWG), that developed action initiatives on vehicles, smart grids, carbon capture, utilization and storage, energy efficiency, greenhouse gas data management, forests and industrial boilers. They had also agreed to work together towards the global reduction of use of hydrofluorocarbons (HFCs), created the US-China Clean Energy Research Center to foster collaborative work in carbon capture and storage technologies, energy efficiency in buildings, and clean vehicles and agreed to a joint peer review of fossil fuel subsidies under the G-20. The two countries also expressed their intention to continue to strengthen their policy dialogue and practical cooperation, including cooperation on advanced coal technologies, nuclear energy, shale gas and renewable energy, which would help optimize the energy mix and reduce emissions, *including from coal*, in both countries.

This action in multiple, fragmented arenas (some created deliberately) helped, rather than hindered the development of the Paris Agreement. They were exercises in minilateralism over practical measures that were relatively non-threatening because there was little prospect that any binding commitments would emerge from them. Nevertheless, as mostly learning-by-doing exercises, they helped bridge the gulf between the developed and developing world

and helped bring about the first comprehensive coverage in the Paris Agreement. We now turn to two cases where the different characteristics of established arenas allowed different outcomes. While many might see the decision in the OECD to allow any continuation of the use of export credits for coal energy to be an undesirable outcome, it was one that was much more aligned to the dual needs of developing countries to access cheap reliable energy and of all nations to minimise GHG emissions.

Two Battlegrounds in the War on Coal

The Obama Administration might have agreed to advance coal technology in its bilateral relationship with China, but it actually sought to *restrict* the development of coal-fired electricity globally in the World Bank and the OECD, succeeding in the Bank, but thwarted in the OECD. At a superficial level, this might have seemed like a laudable policy aim, but it ignored the considerable proposed deployment of coal technology, particularly in the Asia-Pacific, where access to low-carbon alternatives like natural gas is more restricted than in the US, where the shale gas revolution had reduced CO₂ emissions from electricity generation in 2015 to 1993 levels.

Country	Construction	Planned	Total
China	126	639	765
India	177	539	716
Indonesia	60	145	205
Philippines	18	61	79
Vietnam	24	52	76
Turkey	11	44	55
Pakistan	6	32	38
Russia	8	21	29
South Korea	11	16	27
Japan		21	21
South Africa	12	9	21
Total	453	1579	2032

Table 1.

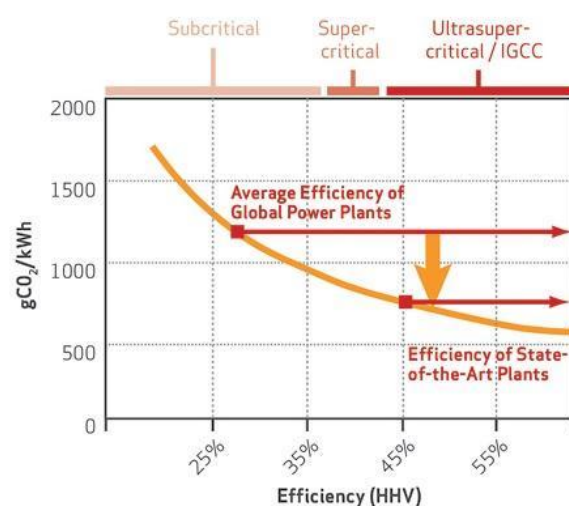
Coal-fired Power Stations Under Construction or Planned, Top Ten Locations, March 2016

Source: Platt's Database

While many environmentalists tend to think that coal should not be used at all in a context of global climate change policy, the IEA World Energy Outlook consistently sees coal utilization growing in absolute terms, albeit while declining in relative share. There are significant numbers of coal-fired power stations planned or under construction, overwhelmingly in the Asia-Pacific (see Table 1), and ensuring that they are High Efficiency Low Emissions (HELE) in nature is highly desirable, since a 1% increase in efficiency produces a 2-3% reduction in CO₂ emissions (see Figure 1). Indeed, an improvement in the efficiency of coal stations from the current global average of 33% to 40% would provide a reduction in annual CO₂ emissions of the same ballpark as that provided by all existing

nuclear energy or all existing hydroelectric plant, and substantially more than all non-hydro renewables thus far (see Table 2).

Reducing emissions through efficiency improvements



Source: IEA "Focus on Clean Coal" (2006)

Note: 1% increase in efficiency = 2-3% decrease in emissions

Figure 1.

Efficiency vs CO₂ Emissions: Global Average vs Best Available Technology

Source: CAIB (2015)

Emission reductions by policies / actions, bn tonnes CO ₂ equivalent			
Policy / Action	Cumulative emissions	Period	Annual emissions*
Montreal protocol	135.0bn	1989-2013	5.6bn
Hydropower worldwide	2.8bn	2010	2.8bn
Nuclear power worldwide	2.2bn	2010	2.2bn
Increase average global efficiency of coal-fired power plants to 40%			2bn
China one-child policy	1.3bn	2005	1.3bn
Other renewables worldwide	600m	2010	600m
US vehicle emissions & fuel economy standards*	6.0bn	2012-2025	460m
Brazil forest preservation	3.2bn	2005-2013	400m
India land-use change	177m	2007	177m
Clean Development Mechanism	1.5bn	2004-2014	150m
US building & appliances codes	3.0bn	2008-2030	136m
China SOE efficiency targets	1.9bn	2005-2020	126m
Collapse of USSR	709m	1992-1998	118m
Global Environment Facility	2.3bn	1991-2014	100m
EU energy efficiency	230m	2008-2012	58m
US vehicle emissions & fuel economy standards*	270m	2014-2018	54m
EU renewables	117m	2008-2012	29m
US building codes (2013)	230m	2014-2030	10m
US appliances (2013)	158m	2014-2030	10m
Clean technology fund	1.7bn	project lifetime	na
EU vehicle emission standards	140m	2020	na

Figure 2.

Contributions of various measures to GHG emissions mitigation

Source: CAIB (2015)

The interests affected by climate policy are complex and non-obvious. For example, natural gas interests are advantaged by restrictions on coal, as combined cycle gas turbine (CCGT) generation provides a 60% reduction in carbon dioxide emissions over conventional black coal generation, and renewables must be backed up by either nuclear or fossil fuel generation (Gartner, 2008). Gas interests have therefore supported renewables and sought to limit the use of coal, even though India and China in particular are increasing their use of coal, and adopting supercritical and ultrasupercritical coal technologies delivering efficiencies in the 40-50% range that begin to rival CCGT.

Natural gas, nuclear and renewables can play a role in mitigating global emissions of greenhouse gases (GHGs) in the electricity sector, but the potential role for coal is less obvious, largely because it is opposed by most ENGOs and other sectoral interests. As such, an explanation of the role it might play is helpful. The future deployment of advanced ultra-supercritical and Integrated Gasification Combined Cycle (IGCC) plants, likely to be commercially available around 2020, will provide efficiencies approaching 50%. By 2010, more than 150 supercritical and ultrasupercritical units were in operation, and 60% of new coal plants in China were large supercritical units (IEA 2015). Since then, ultra-supercritical technology has begun to dominate as subcritical technologies have been completely phased-out for new Chinese coal fired stations (Lazarus and Chandler, 2011: 18).

The Obama Administration used two global policy arenas as the venues seeking to impose internationally significant decisions it had taken domestically about finance for coal electricity development: the World Bank and the OECD. In 2013, the World Bank decided to cease funding coal-fired power stations – including High Efficiency, Low Emissions (HELE) plant such as ultra-supercritical stations – except under exceptional circumstances (World Bank Group, 2013). The US enjoys a quasi-hegemonic position in the Bank. The World Bank Group has 188 members, but gives the US 16% of the voting power, when many decisions require a qualified 85% majority, giving the US an effective veto and this Directions Statement reflected policy announced by Obama in 2013.

The Directions Paper (World Bank, 2013) addressed the use of fossil fuels, affirming that the World Bank Group would ‘only in rare circumstances’ provide financial support for new greenfield coal power generation projects, such as ‘meeting basic energy needs in countries with no feasible alternatives’ (World Bank, 2013a). It promised that the World Bank Group would scale up its work helping countries develop national and regional markets for natural gas, the fossil fuel with the lowest carbon intensity, and also confirmed the Bank Group’s intention to increase support for hydropower projects. This reflected US policy developed in the executive branch and followed the issuing by the Treasury in late 2009 of ‘Guidance for U.S. Positions on MDBs [Multilateral Development Banks] Engaging with Developing Countries on Coal-Fired Power Generation’ (US Treasury, 2013), after substantial lobbying by both ENGOs and renewables and natural gas interests.

Subsequent domestic political activity saw Members of Congress from coal states introduce a Bill (H.R. 3570 of 2013) attempting to prohibit US representatives from voting in accordance with the Guidance, and the success in influencing Bank investment policy came at the cost of diminished influence by the NGO International Rivers, which previously enjoyed considerable success in blocking funding for hydroelectric projects by building coalitions in Congress, because the Directions Statement explicitly favoured hydro and gas. This move had been sought by the gas industry. Royal Dutch Shell, for example, established a special unit to secure the World Bank decision (Geman, 2012; Chambers, 2013; Validakis, 2013), and the Sierra Club’s ‘Beyond Coal’ campaign, was supported financially to the tune of \$US25m by Chesapeake Energy (Walsh, 2012; 2012a) and by various hedge funds (Navarro, 2012; Markay, 2012), which have also sought to lift restrictions on gas exports. It seems clear that

those actors focused on the ‘logic of consequences’ often acted in concert with those motivated by the ‘logic of appropriateness’ (March and Olsen, 1984) in Yandle’s ‘bootlegger and Baptist’ coalitions.

Then in 2015, the OECD agreed to restrict the use of export credits to support coal development, a decision arguably more significant than that by the Bank. But the OECD decision still allowed funding for HELE coal and even less efficient plants under some conditions. Participants in the Arrangement on Officially Supported Export Credits in the OECD in November 2015 agreed to a restriction on the use of finance for coal stations using Export Credit Agencies (ECAs), which stemmed from the Sector Understanding on Export Credits for Coal-Fired Electricity Generation Projects (OECD, 2015). The greater significance of the ECA decision lay in the fact that far larger amounts of financing have been provided historically for coal-fired power stations by ECAs than by the Bank (OECD, 2014). The US, which had decided to cease its own use of this support, wanted a blanket prohibition (as it achieved with the Bank) and was supported by the European Union, but, after opposition from Japan, Korea, Australia and others, the Decision adopted allowed the continued use of Export Credits to fund coal stations if they were HELE – with some exemptions for Least Developed Countries.

Significantly, the US position (as with the Bank), was opposed only to finance for coal-fired electricity, despite the fact the OECD earlier also proposed prohibiting gas. Again, this reflected the strength of the coalition between ENGOs and gas interests that had shaped US domestic policy. The position of the US within the OECD, however, is at best one of *primus inter pares*. While it is the largest provider of funds for the OECD budget, and sometimes likes to remind other members of this when seeking to amplify its influence, the voting rule for most decisions in the OECD is that of ‘mutual agreement’ (Carroll and Kellow, 2011). This is not quite consensus, as members can abstain from decisions and not be bound by them, but they can also exercise a veto by casting a negative vote – although they are usually reluctant to do so. This meant, however, that Australia, Japan and Korea were able to block the US-EU proposal for a blanket ban of the use of export credits for all coal-fired developments and preserve this possibility for HELE plants.

The OECD Arrangement thus sought to balance the needs of Developing Countries to access the energy they needed to develop, on the one hand, and the need to mitigate CO₂ emissions, on the other. It also both protects the export market of the Japanese and Korean engineering sectors, which dominate HELE technology, and assists China, which is making large investments in this area and is not bound by the OECD Arrangement (though it is a significant engagement partner with the OECD). It also protects the interests of Australia, which as the world’s largest exporter of steaming coal, aspires to provide the fuel for any HELE plant in the Asia-Pacific. Whilst the OECD Arrangement might only be a ‘gentlemen’s agreement’ between the EU and the eight other Participants (United States, Canada, Japan, Korea, Norway, Switzerland, New Zealand and Australia), the Arrangement and its amendments are automatically incorporated into EU law, and it is usually honoured by parties to it.

These decisions, one successful and one blocked by use of the characteristics of the OECD as an arena, went well beyond the US agreement with China to deny public financing for new conventional coal-fired power plants except in the poorest countries, as the US sought to limit the ability of other states to continue to finance even the most efficient. The Bank and the OECD have different characteristics in terms of size, decision processes, engagement processes and type of policy decision. Together, they provide a contrast in the significance of factors such as size of membership and decision processes on global policy decisions, and the different characteristics of the OECD allowed other parties to limit the quasi-hegemonic influence of

the US. Ironically, the domestic US ‘War on Coal’ helped Donald Trump win the Presidency, with the race decided by about 70,000 votes in coal mining and rustbelt states.

The Value of Multiple Venues

As this paper has shown, the path to the Paris Agreement was not a simple one and did not proceed within the confines of the several arenas within the FCCC. Fragmentation into multiple arenas not only existed, but was consciously created with the formation of venues of interaction that, because of their characteristics, were preferred to others by some actors as they sought to shape the outcome. For example, the discussion of an agreement to succeed the Kyoto Protocol did not proceed within the Meeting of the Parties (MOP) to the Kyoto Protocol, but within the COP of the FCCC, for the obvious reason that the US and Australia had not ratified Kyoto and therefore could not formally attend meetings of the MOP. And as we have shown here, there were many other arenas used and created on the road to Paris.

The fragmentation of global energy governance undoubtedly gives rise to problems, but the existence of multiple venues, supplemented by the creation of those purpose-built, can provide opportunities for actors to develop or block agreement on global policy instruments, or to steer them towards conclusions they prefer.

The criticisms of the creation of the arenas such as APP were essentially attempts to prevent the development of different architecture to Kyoto. Among political actors in the US, this criticism came largely from Democrats (like Nancy Pelosi) who were supporting the enthusiasm for Kyoto that Gore had brought to the White House, but which failed to infect the US Congress. Scholarly criticism was along similar lines, fearful that the use of alternative venues might lead policy away from targets, timetables, and multilateral redistribution. For example, Christoff and Eckersley (2007:33) suggested

that the United States’ and Australia’s defection from Kyoto, which is directly linked to their exclusive commitment to the [APP], stands as a major stumbling block to China and other major developing countries undertaking mandatory emissions reductions in the second round of Kyoto negotiations.

As we have seen, the APP and the numerous other arenas assisted the development of the Paris Agreement, particularly by bringing together around the same table (or, correctly, multiple tables) the main players among both the developed and developing countries, engaging them in cooperative work programs, rather than in seeking to impose on them compulsory targets and timetables. These venues allowed trust and mutual understanding to develop, and facilitated the development of the Paris Agreement including commitments by developing countries. Kyoto had, by this stage, demonstrably failed, both horizontally and vertically, and those resisting the development of different architecture were resistant to learning this lesson. Thirty years on, there was little chance of institutional bargaining, where the impacts on the interests of each party are unknown, as the winners and losers were clearly identified. What was productive was to have the main parties engaged on matters on which they could make commitments according to their circumstances without any prospect of their interests being compromised.

We cannot, as noted by Young (above), understand global policy by examining what happens in only one arena. There are frequently linkages between developments in several arenas. For example, the Columbia River Treaty in 1961 appeared generous to Canada, but it must be appreciated that it followed a 1958 agreement to integrate the US-Canada air command through the establishment of NORAD, and economic cooperation with the opening in 1959 of the St. Lawrence Seaway. Similarly, Russia positioned itself in 2003 as the state the ratification of which would trigger the entry into force of the Kyoto Protocol, after giving out signals that it

might not ratify. It did so after extracting promises of support from the EU for its accession to the WTO, and of investment in its oil and gas sector from financial interests keen to get emissions trading up and running.

Climate negotiations resemble trade negotiations, and the lesson to be learned about fragmentation of climate negotiations is essentially that which was apparent in trade negotiations in the trade regime: the advantages of minilateralism. Reflecting on the lack of progress on multilateral climate change and trade negotiations, the then editor of *Foreign Policy*, Moisés Naím (2009: 135) stated that ‘We need to abandon that fool’s errand in favor of a new idea: minilateralism.’ Despite the fact that scholars have subsequently repeated Naím’s claim of novelty (see, for example: Eckersley, 2012; Slaughter, 2013), there was nothing new in the concept of minilateralism, which had earlier been used both in relation to climate change (for example, Kellow, 2006) and in the context of trade negotiations, where it originated, first used by David Richardson in the mid-1980s, and appearing in the literature by 1990 (Richardson, 1990). Minilateralism offers some hope of overcoming the slow pace of negotiations, limited by the speed at which the most reluctant party is prepared to move (Sand, 1990; Ward et al. 2001), and raising the quality of measures that might be agreed to – overcoming Arild Underdal’s ‘Law of the Least Ambitious Program’ (Underdal, 1980; Hovi and Sprinz, 2006), or lowest common denominator decisions.

There has been some concern that this ‘exclusive minilateralism’ is undemocratic, because it excludes smaller states from the table (McGee, 2011, Eckersley, 2012), but this ignores the rather obvious point that there is much that is unfair and undemocratic in a world of states. The Sultan of Brunei is one of the wealthiest people in the world, but Kyoto imposed no obligations on him because his nation is ‘developing’, and in the United Nations system Tuvalu, with a population a little over 10,000 has one vote – the same as China with a population of 1.4 billion.

Negotiating agreements in the global trade regime has proved difficulty since its membership was expanded in 1995 with the establishment of the WTO, and bilateral and plurilateral negotiations have become more common. The climate regime has seemingly learned this lesson, and adopted the minilateralism that was once used in the trade regime, with the US running ‘green room’ negotiations, developing agreements with selected parties in a smaller setting and then seeking to enlarge these in the broader multilateral arena.

As our case studies of the World Bank and OECD show, the fragmentation of global energy governance into existing arenas also carries with it advantages. Had the US been able to prosecute its agenda in the OECD with the freedom that was possible in the Bank, it would have restricted the use of coal and HELE technology – to the advantage of the interests of the US and its gas sector, supported by its ENGOs, but to the disadvantage of developing countries, especially in the Asia-Pacific by restricting their access to cheap coal that can be utilized almost as efficiently as gas. The fracking revolution has not only transformed US electricity generation and thus GHG emissions, but has led to a boom in gas exports. Exports of natural gas have increased by an order of magnitude since the turn of the century, and tripled since 2005, from 243,716 million cubic feet (2000) to 728,601 million cubic feet (2005) and 2,315,387 million cubic feet in 2016 (US EIA, 2017). On the contrary, US exports of coal are falling, and it provided less than 4% of Asia’s coal imports in 2012, and less than 1% of total coal consumed by the four large Asian importers, China, South Korea, India and Japan (the four largest importers globally). Moreover, its exports to the region are overwhelmingly of metallurgical coal, used in steel production, rather than of steaming coal, used primarily in power generation, so the attempt to restrict construction of HELE plants in the region would have little impact on US interests.

Conclusion

Global energy governance is fragmented, and is probably likely to remain so. While this undoubtedly leads to problems of coherence and integration, such problems are inescapably part of any system of governance, global, national, or subnational – and, indeed, can be found within organisations.

Fragmentation can also bring advantages, however, through diversity and redundancy. Significantly, fragmentation into multiple arenas assisted, rather than hindered, the development of the Paris Agreement, the first comprehensive agreement on climate change that contained commitments from developing countries, including China (the largest emitter). Engagement of the larger emitters, developed and developing, in multiple minilateral arenas where their interests were not threatened was undoubtedly productive in assisting agreement at Paris. Moreover, the different characteristics of the World Bank and the OECD were vital in determining outcomes from the US attempts to impose disadvantage on coal and efficient coal utilization technology, while advantaging its gas sector.

We suggest, therefore, that fragmentation is a mixed blessing to the development of global energy policy. Fragmentation certainly creates problems, but these are to be found in all policy domains at all levels of governance, and there is a need to recognize the advantages fragmentation can bring in global energy governance in in other policy domains.

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