

Claremont-UC Undergraduate Research Conference on the European Union

Volume 2015

Article 5

2015

Of Uranium and Carbon: Divergence of Energy Policy in Germany and France

Jie Ming Chong
University of Arizona

Follow this and additional works at: <https://scholarship.claremont.edu/urceu>



Part of the [International and Area Studies Commons](#), and the [International Relations Commons](#)

Recommended Citation

Chong, Jie Ming (2015) "Of Uranium and Carbon: Divergence of Energy Policy in Germany and France," *Claremont-UC Undergraduate Research Conference on the European Union*: Vol. 2015, Article 5. DOI: 10.5642/urceu.201501.05
Available at: <https://scholarship.claremont.edu/urceu/vol2015/iss1/5>

This Chapter is brought to you for free and open access by the Current Journals at Scholarship @ Claremont. It has been accepted for inclusion in Claremont-UC Undergraduate Research Conference on the European Union by an authorized editor of Scholarship @ Claremont. For more information, please contact scholarship@cuc.claremont.edu.

3

OF URANIUM AND CARBON: DIVERGENCE OF ENERGY POLICY IN GERMANY AND FRANCE

JIE MING CHONG

UNIVERSITY OF ARIZONA

ABSTRACT

After the 2011 Fukushima nuclear accident, Chancellor Merkel of Germany announced a complete nuclear phase-out in Germany by 2022, while President Hollande of France assured the French government of his commitment to nuclear energy. Fossil fuels, notably lignite and coal, dominated the German energy sector with 47.9% market share of total energy production in Germany; nuclear energy is the leading energy source in France with a market share of 80.9% in 2013. The difference between natural resources' abundance in Germany and France shaped the development of energy policy in both countries. Huge lignite and coal reserves in Germany continued to sustain Germany's growing economy, while France, lacking fossil fuel deposits, pursued nuclear energy to gain economic and energy independence after the 1973 oil crisis. Anti-nuclear movement in Germany succeeded in mass mobilization and gained major political representation in both federal and state governments through the Green Party and Social Democratic Party of Germany (SPD). The French anti-nuclear movement faced a strong centralized French government and failed to gain public support, and political isolation prevented any influence on French energy policy.

KEYWORDS

nuclear power, energy policy, Germany, France

OF URANIUM AND CARBON: DIVERGENCE OF ENERGY POLICY IN GERMANY AND FRANCE

Energy has always been a crucial element of European politics, as Jean Monnet, one of the founding fathers of the European Union, once said, “coal and steel were at once the key to economic power and the raw materials for forging weapons of war” (Monnet, 1978, p. 293). One of the main objectives of the Treaty of Paris in 1951 was to “ensure the supply of coal on equal terms inside a common market” through the establishment of the European Coal and Steel Community (ECSC), the predecessor of the European Union (Dedman, 2010, p. 55). Since the early days of European Coal and Steel Community (ECSC), Germany and France, the two largest economies in the European Union, had shared a strategic and prosperous partnership. However, Germany and France have significantly diverged from each other in their respective energy policy. Germany has steadily harvested their rich coal and lignite resources even until today, while France feverishly adopted nuclear power for energy production since the enactment of Messmer Plan in 1974. The paper examines the intriguing divergence in Germany and France’s current energy policy, and provides conclusive explanations for the policy divergence. The methodology employed to examine this issue consists of analyzing scholarly research and government publications, as well as looking at statistical data.

DAWN OF NUCLEAR ENERGY IN GERMANY AND FRANCE

Nazi Germany’s European war campaign during World War II has haunted post-war Germany, especially during the early years of reconstruction in the newly divided West Germany and East Germany. However, it is interesting to point out that anti-nuclear sentiment in Germany after World War II did not affect the early development stage of the nuclear energy industry in Germany. Initially, protests by anti-nuclear movements in Germany were only targeted against nuclear weapons. Schrafstetter (2004) noted that the successful West German peace movement *Kampf dem Atomtod* during the late 1950s was focused on “the deployment of US nuclear forces on West German soil” (p. 119). Furthermore, when the nuclear superpowers drafted a nuclear nonproliferation treaty in 1966, Willy Brandt, the Social Democratic Party (SPD) foreign minister at the time and future German chancellor, welcomed the nonproliferation treaty but argued for “unrestrained use of civil nuclear energy” (Schrafstetter, 2004, p. 133–134). This supports the argument that the government of West Germany was committed to Chancellor Adenauer’s promise in 1954 on the renunciation of nuclear weapon development in West Germany, but not extended to the development of civil nuclear energy. The first nuclear power plant in Germany, the Obrigheim Nuclear Power Plant, started its operation in 1969 as one of the energy sources of a diverse German energy industry.

While Germany had adopted nuclear energy as early as 1969 and gradually added more nuclear power plants throughout the years, France only massively adopted nuclear energy after the announcement of Messmer Plan by French Prime Minister Pierre Messmer in 1974. Under the Messmer Plan, France targeted to increase nuclear energy production to 85% by 2000, and 170 light water nuclear reactors would be installed across 40 sites (Topçu, 2008, p. 228). The Messmer Plan is an “ambitious nuclear program,” planned in reaction to the 1973 oil crisis, and the French government promoted nuclear energy as the only solution for an independent French energy sector (Topçu, 2008, p. 228). As a result of the Messmer Plan, 56 nuclear power plants is installed in France within 15 years (Palfreman, 1997).

SUPPLY CHAIN FOR URANIUM AND FOSSIL FUELS IN GERMANY AND FRANCE

Even though the success of the anti-nuclear movement in Germany is largely credited to the mass mobilization and strength of political allies, economic factors also strongly influence the energy policy planned by the German and French governments. The supply for both fossil fuels and uranium is a major factor determining the energy choice of both Germany and France. Both Germany and France are highly dependent on foreign oil imports, with Germany having a 98% import dependency (International Energy Agency, 2012a) and France having almost 100% import dependency (International Energy Agency, 2012b). Therefore, both petroleum and natural gas power stations are not primary choices for energy production in both Germany and France, as the energy price would be affected by global oil and gas supply shock. As a result, only about 1.1% of energy in France is produced by oil and gas, and only 10.5% of energy in Germany is produced by oil and gas (Eurostat, 2015). The slightly higher percentage of oil and gas energy production in Germany could be explained by Germany's wider network of oil and gas suppliers. Crude oil is imported into France through three main seaports, with 43% of imports originating from Organization of the Petroleum Exporting Countries (OPEC), notably Libya and Saudi Arabia (International Energy Agency, 2012a). Meanwhile, Germany has four cross-border pipelines and four main seaports supplying crude oil into Germany, with 50.8% of imports originating from former USSR countries, notably Russia (International Energy Agency, 2012b).

Even though both Germany and France lack major oil and gas deposit, Germany has a huge coal and lignite deposit compared to France. According to data released by the European Association for Coal and Lignite, Germany has 40.4 gigatons of lignite reserves and 2.50 gigatons of hard coal reserves, while France has nearly zero reserves of coal and lignite (2014). Furthermore, the European Association for Coal and Lignite points out that the low calorific value of lignite makes transport uneconomic over longer distances, and lignite power plants are commonly built adjacent to lignite mines (2015). Therefore, Germany benefits from its huge lignite and coal reserves, as seen in lignite's 37.4% contribution to the total energy production in Germany (Eurostat, 2015). This also explains why France can't benefit from Germany's huge deposit of lignite even though they are neighboring countries, as it would not be cost effective to transport lignite over long distances. Germany's huge natural reserves of lignite and coal have made it logical for Germany to adopt energy policy friendly towards lignite- and coal-powered energy production.

Similar to their oil and gas supplies, both Germany and France also rely on foreign imports of uranium for their nuclear power plants, as uranium mines in both Germany and France are either closed or depleted (World Nuclear Association, 2014). Uranium mines in Germany are mostly located in regions of former East Germany, and much of it was depleted in the Soviet's nuclear weapons program and nuclear energy production in Eastern Europe (World Nuclear Association, 2014). On the other hand, France has a fully developed fuel cycle strategy for its entire uranium supply chain, with significant overseas investment in exploration and mine development in key producing countries such as Canada, Niger, and Namibia (International Energy Agency, 2009). Niger, a former French colony, contributed 5% to global uranium production in 2007 (International Atomic Energy Agency, 2009) and supplied 32% of France's uranium demand (World Nuclear Association, 2015). Furthermore, France had developed technology for recycling uranium from used nuclear fuel, and it is estimated that about 17% of nuclear energy production in France is produced from recycled uranium (World Nuclear Association).

MASS MOBILIZATION AND ANTI-NUCLEAR MOVEMENTS IN GERMANY AND FRANCE

Blowers and Lowry (1997) argue that environmental and safety concerns, especially “the rear end of the nuclear cycle, reprocessing and waste management” were the main motives for the rise of the anti-nuclear energy movement in Germany starting from the 1970s (p. 150). Arnold (2015) also argues that the disposal of reprocessed nuclear waste is a critical problem that “will last for centuries” and unpredictable factors such as “natural disaster, terrorism, and catastrophic human error” could be harmful to both the environment and human health (p. 26). Blowers and Lowry (1997) note that “the anti-nuclear movement has already contributed to the abandonment of reprocessing in Germany” (p. 154). Public discontent forced Germany to export its spent nuclear fuel for reprocessing in France and the United Kingdom; a process which has led to an increase in the operating cost of German nuclear power plants (Blowers & Lowry, 1997, p. 151). Blowers and Lowry further explain that nuclear energy is “expensive and alternative sources of electricity, notably gas, are readily available” (p. 152). The increase in operating cost caused by the mandatory export of nuclear waste for reprocessing has made the German nuclear energy industry unattractive compared to other energy options.

Nuclear disasters such as Chernobyl and Fukushima, even though they occurred outside of Germany, strongly motivated the anti-nuclear movement in Germany and created national consensus to phase out nuclear energy. Stefes (2010) explains that “the Chernobyl disaster in 1986 empowered the anti-nuclear movement, and a vast majority of Germans advocated phasing out nuclear energy” (p. 154). Traditionally, the conservative CDU-CSU alliance had supported nuclear energy, while SPD preferred a phase out of nuclear energy in Germany (Blowers & Lowry, 1997, p. 152). Stefes notes SPD–the Green coalition’s successful negotiation with German power utilities to phase out nuclear power plants (p. 159). Shim, Park, and Wilding (2015) note that in 1998, the SPD–Green coalition government had proposed the phase out of nuclear energy in Germany by 2022; however, in 2009, Chancellor Merkel from the Christian Democratic Union (CDU) announced a 12-year delay. The federal government argued, “the phaseout would present huge challenges for the national economy and industrial structure,” and nuclear power would remain as a “bridging technology” to the future (Shim et al., 2015, p. 54). Huß (2014) further shows that the proposed extension of nuclear power plant operations in Germany is not a popular political move as “roughly half of the electorate opposed nuclear power” (p. 432).

While the anti-nuclear movement gained momentum in Germany, the French anti-nuclear movement suffered from a lack of public support. Koopmans and Duyvendak (1995) point out that even after the Chernobyl nuclear accident, there was only a slight increase in anti-nuclear protests in France, while there was a significant increase in anti-nuclear protests in Germany (p. 238). Koopmans and Duyvendak further argue that the anti-nuclear movement in France had been marginalized due to three major factors: discourse that underlined the safety of the French nuclear industry, nuclear energy as a guarantee of energy independence, and the nuclear industry as a source of national grandeur (p. 243). This argument is also supported by Litmanen (1998), who explains that civil society in France is not very developed, and the state had promoted nuclear technological expertise since the beginning (p. 9). Schneider (2013) points to a survey conducted in 2012 after Germany’s exit from nuclear energy that showed that 64% of the French population agreed that nuclear energy should remain the main source of energy production in France (p. 30). Schneider also explains that the anti-nuclear movement in France is comprised mostly of scientists and envi-

ronmentalists, unlike the massive anti-nuclear movement in Germany that has widespread public support (p. 32).

FEDERAL GERMANY VS. CENTRALIZED FRANCE

Germany as a country with a federal government system has delegated a lot of its policy implementation power to the *Länder*, or state governments. Thus, the pro-nuclear energy CDU federal government cannot fully adopt nuclear energy in Germany as state governments could oppose the federal government's nuclear project through their policy-implementation power. One of the problems the German nuclear industry faces as a result of the federal and state government power struggle in Germany is the lack of storage facilities for processed nuclear waste. Even though the German government has yielded to public opinions and exported its nuclear waste for reprocessing in France and the United Kingdom, the federal government still faced the problem of finding suitable locations for the storage of reprocessed nuclear waste returned from France and the United Kingdom. Blowers and Lowry (1997) point out that anti-nuclear energy politicians in the Lower Saxony state government had rejected the federal government's proposal to set up long-term nuclear-waste storage facilities in Lower Saxony through "its regulatory and licensing powers" (p. 152). Blowers and Lowry point out that the lack of long-term nuclear storage facilities in Germany challenges the future of the nuclear energy industry in Germany, and thus forces the federal government to revise its energy policy (p. 154).

The nuclear industry's weak political representation was a further challenge to German's development of nuclear energy. In many advanced industrialized countries such as France and the United States, lobbyists representing nuclear-energy interest groups are vital in securing politicians' support for the development of nuclear energy. Blowers and Lowry (1997) note that the nuclear industry in Germany is weak politically and lacks a strong representation by interest group (p. 154). Moreover, Blowers and Lowry (1997) also point out that the German nuclear industry did not have a strong dependent local workforce, thus weakening their position when negotiating with national political parties and environmental groups (p. 154). Blowers and Lowry further supported this argument by saying, "political circumstances are propitious for an anti-nuclear movement as determined as that in Germany" (p. 154). The failure of the German nuclear energy industry to ensure a strong political representation in both federal and local governments has crippled the development of German nuclear energy potential. This is further worsened by the strong policy implementation powers of local governments compared to the federal government; state governments can effectively shut down federally proposed nuclear energy projects through "its regulatory and licensing powers" (Blowers & Lowry, 1997, p. 152). Without cooperation from state governments, the German nuclear energy industry cannot expand its operation even with support from ministers and politicians at the federal level.

The semi-presidential system in France ensures a strong, centralized government in Paris, unlike the German federal government in Berlin. The French government has heavily supported the nuclear energy industry in France since the Messmer Plan in 1974 and the bureaucratic strength of a centralized French government helped the nuclear industry to prosper. Delmas and Heiman (2001) argue that "the impermeability of the institutional setup (no division of power, weak judiciary, and strong bureaucracy)" in France "effectively prevented activists from influencing policy outcomes" (p. 436). Litmanen (1998) further supports this argument; as he explains, "French political opportunity structure is closed"

and “access to political decision-making is limited” (p. 9). Delmas and Heiman also point out that the Ministry in France is responsible for the implementation of government policy and party discipline is strong across government ministry (p. 439). Therefore, the nuclear industry in France never faced the kind of resistance than it did in Germany where state governments can refuse to implement federal policy.

POLITICAL REPRESENTATION OF ENVIRONMENTALISTS AND ITS SUCCESS

The anti-nuclear movement in Germany is represented by the Green Party but has also gained support from SPD party members. The German Green Party had previously formed a coalition government with SPD under Chancellor Schroder, and in 1998 successfully pushed for a nuclear phase-out by 2020 (Shim et al, 2015, p.54). Even though in 2009 the CDU government announced a 12-year delay for nuclear phase out in Germany, the Green Party as an opposition party in Germany provided constant electoral pressure on CDU. After the Fukushima nuclear accident, public opinion swayed towards nuclear phase-out in Germany and therefore increased the political strength of the Green Party. The study conducted by Shim et al. notes that after the Fukushima nuclear accident, the German federal government did try to negate nuclear energy’s negative publicity in Germany by framing nuclear-energy policy as clean energy (p. 71). However, the German federal government was ultimately persuaded by the growing national consensus that “the time ha[d] come to phase out nuclear energy and to invest in renewable energy technologies” (Shim et al., 2015, p. 71). Struntz (2014) further supports this argument; he notes, “while the energy transformation occurs on a timescale of decades, the Fukushima-shock and the ensuing German energy policy consensus in 2011 constitute a sudden regime shift” (p. 157).

Huß (2014) also notes that the rising anti-nuclear national consensus after the Fukushima nuclear disaster was very strong, and Chancellor Merkel announced the rapid nuclear phase-out while disregarding “objections from their parties and ministries as well as possible legal problems” (p. 434). Zohlnhöfer and Engler (2014) further explain that “nuclear energy became the second most urgent problem in Germany in 2011,” and it posed a serious electoral threat to the CDU-CSU and FDP coalitions that had previously supported the extension of nuclear energy in Germany (p. 297). Zohlnhöfer and Engler (2014) also argued that Chancellor Merkel’s rapid announcement of nuclear phase out is a political strategy to “limit the negative electoral effects of their previous policy” (p. 299). In short, the Green Party had built up its political strength in Germany and Chancellor Merkel was forced to announce nuclear phase-out in Germany to avoid electoral defeat to the Green Party.

Unlike in Germany, the anti-nuclear movement in France lacked political representation by a strong political party like German’s Green Party and was thus unable to influence nuclear policy. Litmanen (1998) argues that the French anti-nuclear movement lacked allies among French political parties (p. 9). He also notes that the French anti-nuclear movement failed to gain support from the Socialist Party in France, and the anti-nuclear movement was politically isolated when the Socialist Party came to power in the 1980s (p. 10-11). According to Koopmans and Duyvendak, the Socialist Party abandoned the anti-nuclear movement and continued the nuclear energy program, causing most members of the French anti-nuclear movement to give up their struggle (p. 246). Without a strong political party to represent them at the national level, the French anti-nuclear movement ultimately failed to influence French nuclear policy.

FUTURE OF ENERGY POLICY IN GERMANY AND FRANCE

As both the largest economy and largest energy user in the European Union, Germany has risen to a leadership position in the European Union. However, Germany's rapid phase out of nuclear energy after the Fukushima nuclear accident may create future obstacles with its EU partners. Röhrkasten and Westphal (2012) note that Germany's decision for a rapid nuclear phase out and operation termination of its eight nuclear plants, without prior consultation with the EU and its neighboring countries, could create "a new thread of conflict to its European energy relations" (p. 332). Röhrkasten and Westphal explain that Germany's neighbors "felt sidelined by the speedy political decisions," especially when the Union is moving towards a common, European energy policy under the European Energy Union (p. 332). The European Commission (2015) specified its priorities under the European Energy Union to ensure "secure, affordable and sustainable" energy for the European Union.

France and the United Kingdom are strong advocates for nuclear energy in the European Union. France has "the most refined and extensive nuclear energy programs, with a high degree of energy security and the lowest energy cost in the European Union" (Shim et al., 2015, p. 54), while the United Kingdom also "sees itself as at the forefront of the 'nuclear renaissance'" (p. 55). Ferguson (2010) also points out that France and its state-owned nuclear company Avera had been busy advocating nuclear energy overseas, especially in the Arab world (p. 92). Meanwhile, Feldhoff (2014) notes that the high-cost nature of renewable energy has caused "growing pain" in the German economy, especially since the rapid phase out of nuclear energy followed by expansion of renewable energy (p. 92). He/she further explains that energy-intensive German companies received exemption from the renewable-energy surcharge to maintain its competitiveness, especially against cheaper nuclear energy, and the EU is launching inquiries into this exemption as a violation of the European Union's free market. Nonetheless, as Feldhoff brilliantly points out, "a return to nuclear energy is now beyond any political imagination" and the German government should be dedicated to the development of renewable energy in Germany (p. 91, 95).

AUTHOR'S NOTE

This paper was prepared for the 13th Annual Claremont–UC Undergraduate Research Conference on the European Union.

REFERENCES

- Arnold, A. (2015). The Quest for Sustainable Energy: Germany's Nuclear Scrutiny vs. "All of the Above". *Sustainable Development Law & Policy*, 15:1, 26–59.
- Blowers, A., & Lowry, D. (1997). Nuclear conflict in Germany: The wider context. *Environmental Politics*, 6, 3, 148–155. doi: 10.1080/09644019708414345
- Dedman, M. J. (2010). *The Origins and Development of the European Union 1945–2008: A History of European Integration* (2nd edition). Oxon: Routledge.
- Delmas, M., and Heiman, B. (2001). Government Credible Commitment to the French and American Nuclear Power Industries. *Journal of Policy Analysis and Management*, 20, , 433–456.
- European Association for Coal and Lignite. (2014, August). Coal in Europe 2012: reserves of lignite and hard coal. Retrieved from <http://www.euracoal.be/pages/meldien.php?idpage=1518>

- European Association for Coal and Lignite. (2014, June). Coal in Europe 2013: lignite production, hard coal production & imports. Retrieved from <http://www.euracoal.be/pages/medien.php?idpage=1518>
- European Association for Coal and Lignite. (2015). Why is there no Lignite Market? Retrieved from <http://www.euracoal.be/pages/layout1sp.php?idpage=910>
- European Commission. (2015). Commission Priorities: Energy Union. Retrieved from the European Commission website: http://ec.europa.eu/priorities/energy-union/index_en.htm
- Eurostat.(2015, February). Energy production and consumption in 2013. Retrieved from the website of Eurostat: <http://ec.europa.eu/eurostat/documents/2995521/6614030/8-09022015-AP-EN.pdf/4f054a0a-7e59-439f-b184-1c1d05ea2f96>
- Feldhoff, T. (2014). Post-Fukushima energy paths: Japan and Germany compared. *Bulletin of the Atomic Scientists*, 7, 6, 87–96. doi: 10.1177/0096340214555108
- Ferguson, C. (2010). The Long Road to Zero: Overcoming the Obstacles to a Nuclear-Free World, 89, 1, 86–94.
- Huß, C. (2014). Energy Transition by Conviction or by Surprise? Environmental Policy from 2009 to 2013. *German Politics*, 23, 4, 430–445, doi: 10.1080/09644008.2014.953068
- International Atomic Energy Agency. (2009). Overview of Uranium Resources, Production and Demand. In *World Distribution of Uranium Deposits (UDEPO)*, with Uranium Deposit Classification, 2009 Edition, 11–14.
- International Energy Agency. (2009). Energy Policies of IEA Countries – France, 2009 Review. Retrieved from <http://www.iea.org/publications/freepublications/publication/france2009.pdf>
- International Energy Agency. (2012a). Oil and Gas Emergency Policy – France. Retrieved from <http://www.iea.org/publications/freepublications/publication/GermanyOSS.pdf>
- International Energy Agency. (2012b). Oil and Gas Emergency Policy – Germany. Retrieved from http://www.iea.org/publications/freepublications/publication/France_Oil_Security_Chapter_2012.pdf
- International Energy Agency. (2013). Energy Policies of IEA Countries – Germany, 2013 Review. Retrieved from http://www.iea.org/publications/freepublications/publication/Germany2013_free.pdf
- Koopmans, R., and Duyvendak, J. W. (1995). The Political Construction of the Nuclear Energy Issue and Its Impact on the Mobilization of Anti-Nuclear Movements in Western Europe. *Social Problems*, 42, 2, 235–251.
- Litmanen, T. (1998). International Anti-Nuclear Movements in Finland, France, and the United States. *Peace Research*, 30, 4, 1–19.
- Monnet, J. (1978). *Memoirs* (R. Mayne, Trans.). Garden City, NY: Doubleday.
- Palfreman, J. (1997). Why the French Like Nuclear Energy. Frontline. Retrieved from <http://www.pbs.org/wgbh/pages/frontline/shows/reaction/readings/french.html>
- Röhrkasten, S., & Westphal, K. (2012). Energy Security and the Transatlantic Dimension: A View from Germany. *Journal of Transatlantic Studies*, 10, 4, 328–342. doi: 10.1080/14794012.2012.734669
- Schneider, M. (2013). France's great energy debate. *Bulletin of the Atomic Scientists*,

- 69, 1, 27–35. doi: 10.1177/0096340212471284
- Schrafstetter, S. (2004). The Long Shadow of the Past: History, Memory and the Debate over West Germany's Nuclear Status, 1954–69. *History & Memory*, 16:1, 118–145.
- Shim, J., Park, C., & Wilding, M. (2015) Identifying Policy Frames through Semantic Network Analysis: An Examination of Nuclear Energy Policy across Six Countries. *Policy Sciences*, 48, 1, 51–83. doi: 10.1007/s11077-015-9211-3
- Stefes, C.H. (2010). Bypassing Germany's Reformstau: The Remarkable Rise of Renewable Energy. *German Politics*, 19, 2, 148–163, DOI: 10.1080/09644001003793222
- Strunz, S. (2014). The German energy transition as a regime shift. *Ecological Economics*, 100, 150–158. doi: 10.1016/j.ecolecon.2014.01.019
- Topçu, S. (2008). Confronting Nuclear Risks: Counter-Expertise as Politics Within the French Nuclear Energy Debate. *Nature and Culture*, 3, 2, 225–245. doi:10.3167/nc.2008.030205
- World Nuclear Association. (2015, February). Nuclear Power in France. Retrieved from <http://www.world-nuclear.org/info/Country-Profiles/Countries-A-F/France/>
- World Nuclear Association. (2014, December). Nuclear Power in Germany. Retrieved from <http://www.world-nuclear.org/info/Country-Profiles/Countries-G-N/Germany/>
- Zohlnhöfer, R. & Engler, F. (2014). Courting the Voters? Policy Implications of Party Competition for the Reform Output of the Second Merkel Government. *German Politics*, 23, 4, 284–303. doi: 10.1080/09644008.2014.967223