7 Poland

Incumbent stability amid legislative volatility

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Introduction

In the European energy sector, Poland is certainly not seen as a renewable energy frontrunner. Critics have dubbed it ‘Coal-land’ – not only because of its reliance on coal-generated energy but also because it has argued strongly for safeguarding coal interests against climate policy. Yet, by 2015 the country ranked seventh in installed windpower capacity in the European Union (EU) and was on the path to meeting its renewable energy targets.

However, Poland has low investment stability for renewable energy (see Książepolski and Pronińska 2017). As a journalist specializing in energy policy has pointed out, a fundamental piece of legislation – the 1997 energy law – had been revised 60 times by early 2017, on average every four months (Derski 2017). What can explain the apparently precarious character of Polish renewable energy policy, as well as its broader directions?

Why did Poland in 2015, after lengthy political debate, adopt volume-based auctioning as its main support scheme for renewable energy, since 2016 combined with net-metering for prosumers? This scheme is highly technology-specific, with separate auctions held for very narrowly defined sub-categories of renewables, while public administration determines both the frequency of these tenders and the volumes of electricity to be delivered.

This chapter may well be the first analytical attempt to explain the development and instability of the Polish renewables support mix and trace the influence of external and domestic factors. Many studies of the Europeanization of Polish renewable energy policy do so on the margins of broader climate-policy analysis (Ancygier 2013b; Ceglars and Ancygier 2015; Jankowska 2010, 2017; Skjærseth 2018). On the domestic level, Karolina Jankowska has used the concept of ‘policy capture’ and advocacy coalition theory to explain how Polish renewable energy policy developed until 2008 (Jankowska 2012). Andrzej Ancygier has complemented this bottom-up approach with a more top-down analysis, focused on Europeanization and the transposition of Renewables Directives 2001/77/EC and 2009/28/EC (Ancygier 2013a), whereas Jon Birger Skjærseth (2018) focuses on the policy feedback resulting from implementation experiences. Horizontal Europeanization and policy diffusion (or lack thereof) have also been explored,

hinting at the ways in which domestic political economy as well as beliefs can hinder learning and diffusion processes (Ancygier and Szulecki 2014a; Szulecki et al. 2015; Wedel 2016).

This chapter moves beyond the existing literature by discussing the evolution of Polish renewables policy until the end of 2016 and exploring how Polish political and organizational fields have influenced the renewables support mix. The influence of the European environment is also taken into account. Poland joined the European Union only in 2004, but it was influenced by EU legislation already before that. With the EU (specifically, the Commission) gaining more competence in the area of renewable energy policy, its influence can be expected to grow. However, in the case of Poland, also a reversed dynamics may be expected – with the direct influence of the EU over Polish renewable energy policy gradually decreasing, with accession conditionality gone after 2004 and with Poland's increasing assertiveness in negotiations with the EU. Europeanization is a question not solely of the influence of the EU, but also, in its 'horizontal' form, of policy diffusion and harmonization between member-states. Do we find that Poland has been more influenced by the European environment when one policy recipe has dominated in the EU/EEA counties, or does Poland's accession status make this different?

The case of Poland is particularly interesting since its political field lacks the stability found in most Western democracies: in the period 1993–2016, 17 parties were voted into the Sejm (lower chamber of the Polish parliament). Polish politics is characterized by 'leadership volatility, party volatility, and electoral volatility', and this creates 'whirlpools of continuing uncertainty' (Millard 2009: 218). Much of instability with respect to renewables support may be explained by the frequent and rapid changes in government composition and ruling coalitions. Is the Polish political field more influential when renewables support is politicized and the Sejm is engaged in decision-making, or does the political field conceptualization in this book fail to capture the Polish dynamics?

Lastly, how independent is the political field as regards the organizational field? Are the large, state-owned companies that produce energy from coal closely aligned with the governmental organizations? Does a segmented organizational field control the design of the renewables support scheme? Or have pro-renewables actors been able to disrupt the field, drawing on impulses from the European environment for greater impact?

Technology-specific renewables support mix

Poland's main support scheme for large-scale renewables is an *auctioning* mechanism, based on tenders organized by the relevant ministry. However, caution should be exercised in making a link between the name of a scheme and how it actually functions: as many different measures may be subsumed under the label of 'auctioning'. In Poland, following the 2016 amendment of the renewables act, these were tenders for volume-restricted feed-in tariffs, where the national regulator (*Urząd Regulacji Energetyki* – URE) and Ministry of Energy control the

volume of energy that they will purchase, and bids are made only for the lowest delivery price, which then becomes a fixed feed-in tariff.¹

The mechanism works as follows: the regulator divides renewable energy sources into categories (baskets), by technology and 'size' (capacity) (Księżopolski and Pronińska 2017). As of 2017, there were 21 different, highly detailed categories of renewables – for instance, biogas plants of less than 1 MW, or offshore wind, in seven baskets. The ministry sets reference prices for different technologies, determining technology-specific maximum support levels. The national regulator sets a maximum annual volume of renewable energy from various sources to be sold and purchased through auctions in a given year, as well as the order in which tenders will be held (sorted by technology). The regulator then organizes tenders for set volumes of renewable energy to be produced at prices close to the reference price. Only renewables producers who bid well below the reference price can count on winning the auction, thereby securing the possibility to sell the produced energy at the agreed price, as both simulation tenders and first renewables tenders in 2018 have shown (Gram w Zielone 2018). The reference price served as the maximum, and the regulator automatically 'cuts out' the top 20% most expensive bids. The price agreed in the auction then functions as a feed-in tariff, but for a fixed volume of energy (a certain amount of MWhs). This mechanism provides the government with fairly strong power to steer developments in renewables. Further, producers who were selling energy before 2016 may remain in the previous electricity certificate system for a maximum of 15 years after they began production, or they may opt to switch to the auctioning system (Księżopolski and Pronińska 2017).

In addition, since the 2016 amendment Poland has had two support mechanisms for small-scale renewables (Sejm 2016). First, a net-metering scheme for *prosumers* – end-energy consumers who also produced energy for their own use could reclaim a certain volume of energy from the grid for every unit of energy they feed into it. For every 1 kWh sent to the grid, they receive 0.8 kWh back if they own an installation below 10 kW, and 0.7 kWh if it is over 10 kW. This was intended as an incentive for self-consumption, rather than turning micro-installations into an additional source of income for households: the optimization of household use is the goal. Second, businesses owning micro-installations could sell their surplus energy to a local distribution company at the average wholesale price for the previous quarter, which is announced by the regulator.

A final provision of the new scheme is the development of *energy clusters* – multi-stakeholder partnerships involving local governments, individuals, cooperatives, research institutes and companies functioning locally (in one county [*powiat*] or in a maximum of five municipalities [*gminy*]), together working towards the 'generation, balancing, distribution and trade of energy from renewable sources and other sources in the distribution grid under 110 kV' (Sejm 2016: 2). The goal of this new scheme, which is clearly in line with the citizen-oriented elements of the Energy Union and the EU Clean Energy Package, serves to create conditions for the development of locally balanced and semi-autonomous distributed generation, increasing energy security in sustainable ways. However, there is

no special support scheme for these arrangements; the increase is meant to come through cooperation, local capacity building and synergies enabled by favourable regulatory and administrative measures.

Political uncertainty and coercive EU influence

Prior to 1999: renewables and emulating European modernity

Renewables had been a non-issue in Poland in the 1970s and 1980s; then, during the 1990s (and closely related to the fall of the Communist regime), the country adopted a wide array of relevant policies. After the Second World War, Poland, rising literally from the ashes, conducted a massive electrification programme based mainly on hard coal power plants. By 1980, Poland had become the second-largest producer of coal in Europe, after the Soviet Union. Already in the early 1970s the Communist authorities began to explore the possibility of achieving nuclear energy capacity in order to limit the dependency on coal (Szulecki et al. 2015), as well as constructing several large-scale hydropower plants.

Renewable energy swiftly emerged as an issue after the Communist regime collapsed in August 1989. At that point, the electricity system was concentrated around large-scale hard coal or lignite power plants – almost 99% of power was generated in coal-fired plants. The environmental crisis of the late Communist period, caused by emissions from the industrial and energy sectors, led to greater awareness of ‘alternative energy sources’. However, plans for nuclear energy spurred massive societal protests, culminating in the blockade of construction (already very advanced) at the Żarnowiec site (Szulecki et al. 2015). In 1990, a 15-year moratorium was emplaced on nuclear energy.

The energy and environment debate in Poland aligned swiftly to broader European discussions – unlike the case of the political system. The 1990s marked a transitional political and economic stage for Poland, with the shift from a centrally planned economy and an authoritarian regime to a market economy with a consolidating democratic system. In fact, the political system that emerged after the fall of Communism in 1989 was a hybrid. To borrow a metaphor from Dryzek and Holmes (2002), much of the institutional ‘hardware’ of Polish politics had been inherited from the period of state socialism, while cultural ‘software’ was a hybrid of long-established ‘traditions’ plus the globalization and Europeanization pressures of the early 1990s. The Polish Communist government had been divided into ministries, which maintained institutional continuity also after 1989. A multiplicity of political parties emerged, but none with mass memberships. They never became stable organizations with clear political programmes, as in Western Europe. Their main source of legitimacy was the mandate they received in elections.

Poland’s democratization in the 1990s emphasized representation over participation (Szulecka and Szulecki 2019). Seeking to tame the strong social movements that had brought down the Communist regime, the new political elites hesitated to develop systematic procedures for consultation and dialogue with

societal groups. This forced insulation of policy-making from societal inputs resulted, among other things, in very low levels of trust in political parties and institutions.

The period 1990–1991 saw an eruption of environmental legislation in all domains, including energy (Szulecka and Szulecki 2019). In 1990, the Sejm passed the bill ‘Foundations for Poland’s energy policy until 2010’, stating that ‘environmental protection should be the main factor influencing the choice of energy sources’ and indicating renewables as the preferred solution (Marszałek Sejmu 1990). The first windpower plant (150 kW) was built in 1991 in Lisewo as part of the Żarnowiec plant complex, financed mainly by the Danish government (AGH 2007). In the same year, the need to rationalize energy consumption and production was adopted as an official policy goal, with renewables support as an important instrument (Urząd Rady Ministrów 1991). As a result, there was a feed-in tariff from 1993 to 1999 (Jankowska 2012). Tariffs were set at approximately 30% above the energy market price, and the adjusted prices were announced only one year in advance by the Ministry of Finance. However, as the support level was low and the scheme lacked long-term predictability, it did not result in major investments (Ancygier 2013a: 239).

Nevertheless, the first Polish renewable energy developers began to appear. In 1994, the EC Baltic Renewable Energy Centre (EC BREC) was established by the European Commission (the Commission), becoming part of the Ministry of Agriculture in 1997. It swiftly became the main advocate of higher and more predictable renewables support (Podrygala 2008: 72). In addition, an array of smaller organizations promoted specific technologies, such as small-hydro, wind and solar. Together with environmental organizations, they became the main promoters of renewables.

Even though Poland was not yet an EU member, the EU had influenced Polish energy-policy debates already in the 1990s – most clearly after Poland’s formal accession bid was accepted in 1994. This was evident especially at the rhetorical level, with clean energy as a noticeable element in the modernization project. In 1997, the Parliament adopted an ‘Energy Law’ clearly inspired by the Commission’s energy papers from a few years earlier. This law explicitly mentioned the development of renewables as a goal for national energy policy, as well as established an independent national regulator, URE (Ancygier 2013a: 240–241; Sejm 1997).

The 1997 elections brought victory to the centre-right and a coalition government, headed by Jerzy Buzek and supported by a parliamentary majority of the Solidarity Electoral Action (AWS) and Freedom Union (UW), both rooted in the anti-Communist ‘Solidarity’ trade union movement. This government aimed at restructuring the Polish energy sector towards greater liberalization, combining innovative, competitive and dispersed generation with environmental protection and energy security (Wiśniewski 2015: 45). In 1999, the Minister of Economy introduced a *Renewable Purchase Obligation* (Ministry of Economy 1999), replacing the phased-out feed-in tariff. This took place through an Executive Ordinance, not a decision in the Parliament. Energy distributors were now obliged to

buy all the renewable energy from sources smaller than 5 MW available in their distribution region at a price not higher than their highest final user tariff. The scheme resulted in uneven but low support levels across distribution areas and actually served to disincentivize distribution companies from investing in renewables.

At the same time, the EC BREC was instrumental in the adoption of a parliamentary resolution on increasing the use of renewable energy (Sejm 1999). The Sejm called on the government to prepare mid- and long-term renewables goals, adopt a strategy to foster the development of a renewables industry and to harmonize the new renewables policy with the country's energy and environmental policies. At that time, renewables fell under the Ministry of Environment and were not an integral part of the energy sector, which was under the Ministry of Economy. The resolution also recommended the active participation of private, civil society, cooperative and communal stakeholders in the expansion of dispersed energy production (EC BREC 2000). However, the resolution was only an expression of political will; it would still need to be operationalized through the executive branch (Biuletyn 2003a).

Renewables arrived late as a political issue in Poland. Several policy elements were adopted in the 1990s, but the country did not develop transparent procedures for development and policy change. A nascent renewables industry emerged, but there was no clarity as to whether and how it should be involved in the political processes. The traditional coal producers still had a very dominant position.

2000–2004: pre-accession conditionality and interministerial struggles

In this period there was much political discussion on renewables, but no actual adoption of a new renewables support scheme. The Ministry of Environment swiftly followed up the 1999 Sejm resolution by proposing concrete regulations, proposing the development of renewables schemes along the lines discussed in Brussels at the time: 'certificates, bidding competitions or tenders' possibly adding some technology-specific elements (Ministry of Environment 2000). A pilot project for wind energy development was prepared but never introduced (Wiśniewski 2011). Interestingly, the Environment Ministry's strategy did not define biomass co-firing as a green, renewable energy source – but, as we shall see, this soon emerged as the key renewables source in Poland.

At that time, Poland had reached the final stage of EU accession negotiations and was under strong pressure from the EU to implement renewable energy legislation (Biuletyn 2003a). In 2000, the Ministry of Economy adopted an ordinance with *targets* for total share of renewables in the electricity market – at 2.4% in 2001, set to increase to 7.5% by 2010 and 14% in 2020 (Ministry of Economy 2000). However, these targets were only an expression of good will and were not binding. Compliance with EU law was the main driver for this hasty legislative change.

After the 2001 elections, the Democratic Left Alliance (SLD) together with Labour Union (UP), and the agrarian Polish People's Party (PSL), formed a

coalition government which was not as open to energy-sector reform as the Buzek government had been. Key figures in the new government had strong ties to coal mining and traditional utilities as well as a highly centralist attitude (renewables expert interview, 2018). Now the conflict between conventional incumbents and the coal-mining sector on the one hand and renewables – especially the growing wind industry – on the other became evident for the first time. The windpower lobby was growing in strength, trying to push for either universal renewables support or a targeted wind support programme. Opponents argued that wind farms would rely on imported parts and potentially replace jobs in the conventional energy sector, thus spurring negative social consequences (Biuletyn 2002). On the whole, the question of costs was becoming increasingly prominent (Biuletyn 2001). Even a Member of Parliament who supported renewables stated: ‘with time the support for renewable energy will be a necessity’, but added that ‘[we] have to decide who will pay for this. Will it be the consumer or the state budget, and if it is the budget, where will the money come from. This is what it all boils down to’ (Biuletyn 2003b).

Renewables were not ‘politicized’ at the time but remained a technical and not overly salient topic for society. Still, some patterns with respect to renewables positions and links between particular interest groups and various political groups had emerged. The agrarian PSL and populist ‘Self Defence’ favoured bioenergy. The post-Communist left-wing SLD was split, with a majority in the party (and the affiliated UP) close to the mining sector and either openly opposed to renewables or simply ignoring it, or at most favouring biomass co-firing as a cheap way of achieving renewables targets without threatening conventional industry. However, one faction within the SLD was close to the nascent windpower industry. Finally, conservative and nationalist parties, such as the League of Polish Families (LPR) and later the conservative-nationalist faction in Law and Justice (PiS), had geothermal energy as their pet renewable, usually justifying this in terms of sovereignty and geopolitics – a Polish technology for tapping Polish natural resources. The liberal parties had little to say, apart from lip service to the need for meeting EU renewable energy targets. Solar power had scattered support, mostly from various individual MPs (renewables expert interview, 2018).

This period also saw a significant shift in responsibility within the government. Until 2000, the Ministry of Environment had been the main actor as regards (limited) renewables regulation. Responsibility was now shifted to the Ministry of Economy, thus moving renewables from the realm of *environmental protection* to that of *energy policy* (Biuletyn 2003a). Moreover, the relevant instruments fell under the competence of the Ministry of State Treasury (Biuletyn 2003a). However, several politicians complained in 2003 that the Ministry of Economy was utterly passive and even reluctant to join an interministerial team to move renewables regulation forward (Biuletyn 2003a). Renewables supporters demanded a parliamentary bill that would regulate renewables and support mechanisms, with targets and a longer-term strategy.

The Purchase Obligation adopted in 1999 was, in principle, meant to translate into a kind of fixed tariff system, where renewable energy would sell at

highest local retail prices. However, many distribution companies simply failed to abide by the regulation. According to the vice-president of the national regulator's office, 17 distribution companies in 2011 (over one half) did not follow the obligation and refused to pay the ordained fines, instead taking their case to the anti-monopoly courts (Biuletyn 2003a). This had severe consequences for some small-renewables investors (Biuletyn 2003b). In addition, renewables were subject to a 22% VAT rate, whereas conventional energy sources were under a 7% VAT. Even worse, the transmission system operator PSE introduced an internal regulation in 2002, forcing energy sellers to report their production 48 hours in advance – effectively blocking all intermittent renewables from the wholesale market, and adding to the hurdles already encountered in the distribution zones. The centralist organizational logics of the energy sector was fragmented, and politically powerful conventional utilities were pre-emptively making market entry difficult for renewables. Some held that this showed that the coal industry was such a powerful monopoly as to be 'above the law, and all this [renewables support] is a game of delusion' (Biuletyn 2003a).

The Ministry of Economy, the TSO, and the conventional electricity utilities were all embedded in a mind-set dominated by engineering and coal, with centralized, national coal production and distribution regarded as the backbone of the Polish economy. This clashed with the vision of the 1999 Parliamentary Resolution. Members of Parliament began calling on the government to move forward quickly with a clear new support scheme – ideally *green certificates* (Biuletyn 2003a), possibly with a feed-in tariff 'like the one in Denmark, Spain or Germany' as transitional support before a new system was in place (Biuletyn 2003a). However, it became increasingly clear that the Parliament was not able to enforce what it had adopted (Biuletyn 2003a).

Nevertheless, as Poland had joined the EU in 2004, it had to conform to the 2001 Renewables Directive (Boasson 2021, this book). Both the Buzek and Miller governments were clearly pro-European and eager to comply with EU regulations. Poland was also bound by emission reductions agreed in the Kyoto Protocol; however, due to structural changes in the industry, Poland fulfilled its reduction targets without needing to decarbonize its power sector. Thus, the international climate policy did not really serve as an incentive for Poland to reform its domestic energy system and expand renewables.

Following negotiations between Poland and the relevant EU institutions in 2002–2003, the 7.5% target for renewables by 2010 and other provisions of the ordinance were included in the EU Enlargement Treaty. That made the target a 'key driving force for development of further legislation and for the increase in the amount of renewable electricity in Poland' (Wiśniewski, in Jankowska 2010: 167).²

Despite the lack of liberalization reforms in the electricity sector, the deputy director of the Economy Ministry argued that 'in energy, also renewable, we will be moving towards market solutions. Setting a fixed tariff, like in Germany, will not be right. We propose market mechanisms, so-called Green Certificates, a renewable energy market' (Biuletyn 2003a). Representatives of the conventional

energy sector called for biomass co-firing to be included in the support scheme, which would allow the energy companies to benefit from renewables support.

With sectoral expectations mounting and Polish EU accession looming, the draft of a new renewables law was issued in the summer of 2003. It was prepared by the former EC BREC, by then transformed from a unit within the Ministry of Agriculture to an independent non-governmental think-tank – the Institute for Renewable Energy (IEO 2017) – and was sent to the Ministry of Environment. The draft proposed technology-neutral green certificates as the core support scheme. However, in November 2003 the Department of Instruments for Environmental Protection sent back a completely new draft, changing the balance between renewable energy technologies to be supported, clearly granting more competence to the transmission and distribution system operators and downplaying the role of local governments and dispersed energy producers.

The new draft underwent a new round of consultations; but, while these were ongoing, in late December the Department prepared yet another draft, asking stakeholders to send in their comments within one day (Grużewski 2004). This was met with outrage among the interest groups concerned, and after heated discussions in the Ministry, another amended draft was sent out for consultations. However, renewable energy organizations and environmental groups were not included, whereas conventional energy industry companies were. At the time, the head of the Department was a former employee of the TSO, an engineer linked to the conventional power sector since the early 1980s – and his role in Poland's energy governance and policy-making was described as a 'personal union' between the energy industry and government (Grużewski 2004).

The revised draft was, again, rejected after the governmental reorganization in May 2004. Now, the cabinet of Leszek Miller was replaced with a new one formed by Marek Belka, with a new Minister of Environment (Jankowska and Ancygier 2017). The new government implemented the Renewables Directive through Executive Ordinances and amendments, and little parliamentary involvement (Ancygier 2013a: 246; see also ClientEarth 2013). In the majoritarian parliamentary culture that had emerged in Poland, dialogue with minority voices and thus the plurality of competing interests relating to renewables rarely featured in policy debates (Cianciara 2015: 74). As a result of the preferences of the traditional utilities, co-firing was added to the list of renewable energy technologies in 2004; this was also in line with EU regulations. But when would the long-awaited support be introduced?

By 2004, renewables policy had been mainstreamed into energy policy in Poland. The Ministry of Economy, with its sectoral logic conditioned by the conventional energy industry, set the terms of the debate. While Poland aligned its policies to the EU in a broad array of areas in this period, it did not align to EU procedures when it came to organizing transparent policy consultation processes (Cianciara 2015: 56–57). Top-down EU pressures, combined with bottom-up pressures from the growing renewables lobby, made the introduction of a support mechanism inevitable. However, that did not happen in this period, despite several draft consultation processes.

2005–2009: green certificates and learning EU energy governance

The emerging renewables industry failed to gain much influence in the period 2005–2009. However, as we will see, Poland adopted a certificate scheme that had the paradoxical effect of strengthening its traditional coal-based electricity industry.

The parliamentary elections in September 2005 re-shuffled the political scene considerably, bringing an eclectic coalition of the conservative-right Law and Justice Party (PiS), the nationalist LPR and the agrarian-populist Self-Defence Party to power. Work continued on a renewables law that would be compliant with EU regulations. In October 2005, the Sejm adopted a ‘Renewable Energy Act’ – in fact an amendment of the 1997 Energy Law and the 2001 Environmental Protection Law (Sejm 2005), adding to the legal complexity. Tradable electricity certificates were introduced, with a quota that obliged energy producers to generate a certain percentage of their power from renewable sources. Those who failed to meet the quota had to pay a ‘substitution fee’ – which was transferred to a governmental pool used for renewables investments. All renewable electricity was guaranteed access to the wholesale market (Biuletyn 2005). In addition to the green certificates, the scheme also included ‘red’ and ‘yellow’ certificates for high-efficiency cogeneration.

However, already the following year, an MP from the ruling coalition complained that the main beneficiaries of the certificate scheme were ‘cogeneration plants co-firing biomass with coal and old hydro plants’ and indicated that the system needed immediate correction (Biuletyn 2006b). It was clear that such co-firing was not spurring the development of new and renewables electricity technology (Biuletyn 2006b). The system favoured those who invested in the cheapest renewables (co-firing), whereas more expensive renewables were simply not developed. The agrarians’ ‘pet renewable’, biogas, widely seen as a technology that would boost both employment and agricultural production, also proved to be a loser in the new system.

The effects of certificates on anything but low-cost co-firing took longer to emerge, even if many developers showed interest in investing (Biuletyn 2006b). In 2006, Poland still had only two windfarms and some scattered turbines. A ‘run on wind energy’ was observable, but the effects were late in coming, due to the burdensome administrative procedures as well as other problems caused by the conservative TSO. Yet, even the most vocal proponents of renewables noted that, without additional support for domestic investment, foreign investors would become ‘the greatest profiteers in this business’ and dominate the wind sector (Biuletyn 2006b).

Importantly, introduction of this new system coincided with a fundamental shift in the Polish energy market. Due to EU regulations (the Second and Third Energy Packages), Poland was encouraged to consolidate its existing energy producers – until then usually individual power plants run as semi-public companies – into large industrial energy consortia. Around 2006–2007 this led to the formation of the Big Four: Polska Grupa Energetyczna (PGE), Tauron, Enea and Energa.

This consolidation gave the conventional utilities an even more powerful position in the organizational field of stationary energy. Moreover, it became increasingly common to equate the interests of the large energy-industry players with the interests of the state (RES expert interview, 2016).

The certificate system was inherently unstable, as income for investors depended on the price of electricity and the price of green certificates (operating like equity with a price set by the energy exchange) – both of which fluctuated dramatically. Price drops were linked to an oversupply of certificates (reaching 18 TWh in 2015) – with increasing renewables capacity and increasing volumes of co-firing. Additionally, until they were withdrawn in late 2013, other types of certificates (red and yellow for high-efficiency cogeneration) influenced the price of green certificates. The ‘substitution fee’ – which was fixed by the national regulator each year – added to the investment risk, because under low prices it was cheaper for producers to pay the fee than to buy certificates. Hence, some funding that would have otherwise ended up financing renewables went into the governmental fund. This generally high risk made investment possible only at a higher rate of return. Capital costs made the certificate system more expensive per unit of installed capacity than a feed-in scheme. The opposition criticized the government for lack of vision, coordination, strategic thinking and focusing solely on fulfilling EU targets (Biuletyn 2006b). This resulted in the creation of a new position, the ‘government’s plenipotentiary for promoting renewable energy’, charged with coordinating the work of five or six ministries in that area (Biuletyn 2006c).

Already in 2007, the coalition government established in 2005 collapsed. Snap elections brought the liberal-conservative Civic Platform (PO) and agrarian PSL into power, with Donald Tusk forming the new government. While initially the pro-EU government was also seen as pro-environmental, it quickly opted for ‘cheap growth’ with minimal emphasis on sustainability (Szulecka and Szulecki 2013). In 2009, the differences in organizational logics between the Ministry of Environment and the Ministry of Economy came again to the fore. The Environment Minister and leading figures in the environmental movement called biomass co-firing ‘technological and economic nonsense’. Prime Minister Tusk accepted the resignation of Environment Minister Maciej Nowicki and transferred all competences on renewable energy policy to the Ministry of Economy. The Ministry of Treasury, which managed the state-owned energy companies, wanted a continuation of the co-firing practice. This gave the impression ‘that the national ‘champions’ do not defend national interests, but rather that the state defends their interests’ (Wiśniewski 2013). Importantly, Poland’s satisfactory fulfilment of EU renewable targets was based largely on co-firing, as had been clear from the start (Biuletyn 2006a).

The national debate now seemed gridlocked. Revision of the Renewables Directive at the EU level attracted scant attention, as the government focused primarily on the revision of the EU Emissions Trading System (ETS) (Jankowska and Ancygier 2017; Skjærseth 2018: 503). In parliamentary discussions, the MPs treated legislative work on matters like the 2020 targets as something that was going on ‘out there’ (Biuletyn 2007).

Summing up, in this period green certificates were introduced, and, together with restructuring of the corporate sector, this strengthened the position of Poland's existing utilities. The support scheme had long been awaited, and, under high certificate prices, the investment conditions were favourable. It was primarily biomass co-firing that benefitted, but also, to a certain extent, wind farms. During these years, Poland also started to learn how to influence EU energy policy, moving from a passive receiver and becoming a co-shaper, at times even a veto player.

2010–2016: domestic struggle and EU assertiveness

After 2010, Poland became a more important player in EU policy development – and a less eager adopter of EU renewables policy. It also entered a period of opaque policy development processes relating to renewables support. In 2015, the country also experienced a shift to a single-party majority government that undermined the role of open political processes in the Parliament altogether.

As required by the 2009 EU Renewables Directive, Poland developed a national renewables action plan in 2010 (Ministry of Economy 2010). This plan aimed to meet the Polish target with wind, biomass co-firing and one new large hydropower plant (Jankowska 2012). Moreover, a new bill on renewable energy sources should be adopted in 2011 (Ministry of Economy 2010: 37). At that time, the ETS debate helped to establish a clear link between energy and climate policy, but the dominant sceptical attitude of the energy industry spilled over to renewables regulation. The government began relying on a narrow group of trusted consultancies – most importantly EnergySys, a think-tank established by energy engineers with backgrounds in the conventional energy sector. By 2013 EnergySys had become the government's first-choice reporting body,³ with considerable agenda-setting power.

In the 2011 elections, renewables became a political issue for the first time. The strongest commitment and most concrete proposals came from the agrarian PSL. The newly formed Palikot Movement had a generally enthusiastic attitude; it became the third-largest party in Parliament shortly after it was created. The largest party in the Sejm, PO, mentioned renewables only as part of EU obligations to be fulfilled. The main opposition force – PiS – voiced open climate scepticism: favouring coal, it called for rationalized renewables support that would give priority to national resources such as biomass, waste, hydro and geothermal energy (Kaczorowska 2013). After the elections, PO and PSL remained in power as a coalition, while the Palikot Movement, although it had been visible and active, dissolved by the end of the term.

Work on a new renewable energy act re-started in 2011, with the aim of fully transposing the 2009 EU Renewables Directive and streamlining the regulation of the renewables. This was meant to be part of the 'Energy Three-Pack' – a joint and coordinated reform of all energy-related legislation, including a long-delayed update of the 1997 Energy Law, the Gas Act. The new laws partly resulted from pressure on the part of the Commission, which threatened Poland

with proceedings before the European Court of Justice for not implementing the Directive. In December 2011, a draft renewables law was presented, including radical changes to the existing support mechanism.

In March 2012, a Renewable Energy Department was created in Poland's Ministry of Economy to deal with implementation of EU policy. After strong criticism of the 2011 draft, a significantly changed proposal was presented in July 2012. Following public consultations, the new department developed a proposal to introduce feed-in tariffs for smaller installations, and to reduce and ultimately abolish support for large hydropower and for co-firing. The Economy Minister accepted the proposal and asked the Institute for Renewable Energy to analyse the economic consequences of the proposed feed-in tariff (IEO 2016). The conclusions were later included in revised versions of the draft.

Meanwhile, due to mounting pressures from the Commission, a parliamentary project of a 'small three-pack' – a provisional set of temporary amendments to the Energy Law – was introduced in the Sejm. This shifted attention away from the renewables work within the Ministry of Economy. The small three-pack was adopted by the Parliament in July 2013 (IEO 2016). It dropped feed-in tariffs and opted for the continuation of the green certificate scheme, but new technology-specific certificate assignment would ensure that for each MWh produced in cheap co-firing, only 0.5 certificate would be granted, compared to 2.0 for solar. Renewable energy industry endorsed the changes but called for reduction of barriers to small-scale renewables investments (IEO 2016).

Renewables investments continued to grow rapidly. Between 2004 and 2013 the share of renewables in gross final energy consumption increased from 6.9% to 11.3%. But this golden age proved short-lived. In March 2013 Tusk stated that Poland would search for the renewables path that was 'safest and cheapest for the people', aimed at fulfilling the 15% target for 2020 – and 'nothing beyond that' (PAP 2013). This indicates that fulfilment of EU obligations was the main driver of renewables support in Poland, but also that the coming policy mix should give the government control over energy price. While there was strong willingness to invest in renewables at the local level (Ancygier and Szulecki 2014b), the complex support mechanism, as well as the unfavourable conditions for prosumers and cooperatives, left the potential for small-scale developments untapped.

In November 2013, a new Minister of Economy was appointed. He presented a completely new renewables act proposal, erasing two years of drafting and consultations. The project was prepared by a team in the Chancellery of the Prime Minister. The draft, heavily influenced by utilities and industrial energy companies, made nuclear the preferred tool for decarbonization (IEO 2016). The certificate scheme was replaced with *auctioning*, without giving priority to new and more costly renewables. The Ministry refused to conduct a new round of consultations, claiming consultations had already been held, albeit concerning a very different draft.

At that time, new EU state-aid guidelines were under development, and while it was signalled that traditional feed-in would not be accepted, it still seemed as if certificate schemes would. The Polish authorities were concerned by the direction

this regulation was taking. In a consultative response to the Commission, the Office of Competition and Consumer Protection argued that renewables could play at best an auxiliary role in Poland, and it called for a more technology-neutral approach that would allow Poland to subsidize conventional generation and nuclear ‘due to geographical, geological and climatic conditions’ (UOKiK 2014).

The Polish Council of Ministers approved the draft Renewable Energy Act in April and in May sent it to the Commission, launching a notification procedure – which it soon discontinued. In July the draft Act went to the Sejm, where the opposition (PiS) demanded a public hearing, claiming that public consultations to date had been ‘fictitious’, and that the new renewables act had been ‘written by lobbyists’, noting that windpower was allegedly favoured in the project (*Komisja* 2014).⁴ The public hearing was held in September 2014, with a record-high 129 participants (Sejm 2014). Nevertheless, the haste with which the project of a new support mechanism (auctions) was pushed through the Sejm gave rise to objections. There were also fears that the new schemes might be dismissed as unjustified state aid, as this had not been notified to the Commission in due time (*Komisja* 2014).

In January 2015, the new Act was finally adopted in the Sejm. First auctions were scheduled for January 2016. The Act was criticized for its complexity (144 pages of detailed regulations) and high up-front costs of entering the auction, making it difficult for municipalities and cooperatives to participate. In addition to the suggested auctioning scheme, the Sejm adopted a fixed feed-in tariff for installations below 10 kW, aka the ‘prosumer amendment’, proposed by a PSL deputy and supported by an unprecedented media campaign on the part of renewables actors and environmental organizations. An ad hoc majority that formed around the issue, including the coalition junior partner PSL, adopted the amendment against the will of the ruling Civic Platform party. The government and PO tried to topple the amendment in the Senate, which proposed its own, watered-down ‘prosumer amendment’; but in a second vote in February 2015, the Sejm adopted the Renewable Energy Act with a guaranteed price at the level of the average wholesale price from the preceding year. This price and market access guarantee, combined with preferential credit offered through public financial institutions, attracted wide interest.

Presidential and parliamentary elections in June and October 2015, respectively, brought a new political situation, putting the long-term opposition party, the conservative PiS, in full control of the state administration. This time, the electoral campaign was much more focused on energy and climate issues – with PiS supportive of local, dispersed generation, with the liberal PO and newly formed *Nowoczesna* sceptical to renewable energy and with the main proponents of renewable generation again among the agrarian PSL and on the left (United Left and Your Movement, neither of which gained seats in the Sejm) (Kijewska 2014).

A new Ministry of Energy took over energy governance competences from the Ministry of Economy (which was dismantled), and the long-time director of the Renewable Energy Department was dismissed. Understaffed, the new ministry was unable to continue legislative work on renewables policy. Already in

December 2015, a new amendment to the renewables act passed through the parliament. It extended the ‘green certificate’ system and postponed auctions until 1 July 2016. Further, it gave the new Energy Ministry authority to insert changes in the small-scale feed-in scheme if investments seemed to be growing too fast. This extended the systemic instability for larger investors and left the angry prosumers in limbo. Those who invested or took up mortgages on their home photovoltaic installations were worried, because PiS – initially seen as prosumer-supportive (Szulecki and Ancygier 2015), began sending rather negative signals.

In June 2016, the Sejm, solely with the votes of the PiS majority, adopted another new amendment. MPs from PiS submitted the proposal in a format that allowed bypassing all public consultations and sped up the decision-making procedure. This was part of a larger trend, with the PiS using this special procedure to avoid public hearings altogether (only two were held in the first year) (*Obywatelskie Forum Legislacji* 2017). It was claimed that major stakeholders had been consulted, but that had not happened.

The 2016 amendment included co-firing, and the biomass-to-coal ratio needed to qualify as ‘renewable energy’ was changed from 30/70 to 20/80. As to the tenders, the government would now decide each year what kind of technologies would be required through an Executive Ordinance, defining the technology and amount of energy to be bought in an auction. In a separate act, the PiS introduced a localization regime highly unfavourable to wind farms, which, as ClientEarth noted, was harsher than for coal-fired plants (Chojnacki 2016). In October, the Ministry of Energy published a list of reference prices per MWh of energy (basis for auctioning), distinguishing 21 renewables categories, on the basis of technology and size. For the first two years, no auctions for onshore wind were held: the first one came only in November 2018.

Discussion and conclusions

This chronological presentation has shown that the European environment has played a vital role in shaping Poland’s renewable electricity support-scheme mix. This research confirms Jankowska’s argument that, without external EU pressure, ‘there would not have been an energy and climate policy in Poland even half as ambitious as it is now’ (Ceglarz and Ancygier 2015: 137; Jankowska 2010: 168). In the first phase (until 1999), renewable energy seemed a rather distant, futuristic idea associated with ‘modernization’. At the time of political, social and economic transition from Communism, ‘the West’ – epitomized by the EU – was perceived as a role model (Ancygier and Szulecki 2014a; Szulecki and Kuszniir 2017). Poland was a relatively early adopter of a feed-in scheme; a main reason seems to have been influence from the early feed-in adopters in the EU. All this happened before Poland became an EU accession country, and long before Brussels had any formal authority over Polish energy policy.

Later, EU conditionality gave the Commission superior authority over Poland across a range of issues, and harmonization of domestic policy with EU norms and expectations accelerated. In line with the findings of Jankowska and Ancygier

(2017), we can conclude that this explains why Poland adopted a certificate scheme. While feed-in diffused and became increasingly popular in other EU member states, Poland was influenced more by the Commission than were its peers. After accession, the carrot-and-stick of membership and conditionality disappeared, but learning to navigate the new corridors of power in Brussels took time. Until 2010, Poland was still building up expertise and capability in energy policy-making and negotiations. Domestically, renewables were but a marginal issue.

Early in 2015, Poland adopted a support scheme for large-scale renewables, closely aligned to the approach recommended in the EU 2014 state-aid guidelines. As Poland already had a certificate scheme that was acceptable under the new guidelines, this change seems puzzling and cannot be interpreted as a direct result of the increased authority of the EU with respect to renewable energy issues (Boasson 2021, this book). Policy-makers and incumbents were clearly dissatisfied with the technology-neutral certificate scheme. As there was growing pressure from the outside (the Commission) and below (renewables lobby and environmental NGOs) for full implementation of the 2009 EU Renewables Directive, the new renewables act was seen as an opportunity to realign the support scheme and the political economy of renewables. On the surface, Poland seemed to be following the crowd. It adopted a variant of auctioning, which was the Commission's preferred price-setting scheme, adopted by several other member states – but the Polish authorities made sure it was highly technology-specific and easy to steer. In contrast, the Polish Parliament ensured that Poland adopted a support scheme for small-scale renewables apparently inspired by small-scale schemes in other EU member states (Leiren and Reimer 2021; Rayner et al. 2021).

We can conclude that the *European environment* has been very important for the development of renewables policy in Poland ever since the 1990s. Indeed, EU policy seems to have had prime importance when the EU has had the greatest authority (in the accession period, and after 2014). Poland has been affected by trends in the European environment, but the 2015–2016 changes show that these could be used more selectively and instrumentally.

Moreover, we cannot overlook EU influence in other areas that had repercussions for the Polish renewable energy mix. While EU unbundling and electricity-market regulation has had positive effects on the nascent renewables industry, the creation of a state-energy-industrial complex was also the result of EU pressures on horizontal and vertical consolidation (Jankowska and Ancygier 2017; Szulecki 2018).

As to the *organizational field*, it remained segmented during all the periods examined here. While governmental ministries were very important initially, sectoral incumbents became more powerful after the EU induced consolidation around 2006. Responsibility for the development of renewable energy shifted frequently between different ministries, and the utilities appear to have gained influence after responsibility for renewables was moved away from the Ministry of Environment in 2009. To some extent, external consultants with close ties to the large utilities served to strengthen the utilities' control over information.

Even though Poland had a market-based support scheme for a while, the market logic does not appear to have been strong in the organizational field. Nor do any of the institutional logics relating to climate mitigation appear to have a strong standing in the field, which remains dominated by a centralized and state-steered system where conventional (coal) baseload generation is seen as the backbone of the Polish economy. The Ministries of Economy and later Energy and the regulator TSO, as well as the major state-owned utilities, all share this mind-set. There is a clear ‘revolving door’ issue, with considerable (re)circulation of experts (Szulecki 2018). Renewables are frequently depicted as undermining state energy security (Szulecki and Kuszniir 2017). Despite the dominance of the large utilities, we can find several examples where small renewables actors have been able to influence policy – most clearly with the adoption of the feed-in scheme for small-scale renewables in 2015. However, it did not take long before the major players in the field were able to weaken this scheme severely. Hence, the emergence of a small renewables community has not counteracted the other tendencies towards stronger segmentation in the field.

We may conclude that the logic of the organizational field, with increasing segmentation, has become consolidated, its impact on policy growing over time. The outcome of the 2012–2016 legislative process is the most important evidence: it was the energy-sector experts, and not the challengers (despite increased politicization of the issue), that got the upper hand.

Lastly, turning to the *political field*, it seems clear that prior to 2010, renewable energy in Poland was de-politicized, and the main governing method was ministerial. This is supported by strong evidence: between 1997 and 2014 (except for the 2005 Renewables Act), most regulation was conducted through ministerial ordinances. However, a broader debate did open in 2011, gaining salience until 2015. This shifted the governing mode to legislative – and politicization ensured that the political field had significant influence on the renewables schemes adopted in 2015, the small-scale support in particular. Since then, all new regulation has been conducted as amendments to amendments to amendments, passed through the Parliament. The period after 2010 can thus be seen as a time of increasing politicization. However, with the single-party majority in power after October 2015, ‘legislative’ itself becomes a problematic concept.

The political struggle immediately leading to the adoption of the 2015 Renewable Energy Act, with an ad hoc coalition forming around the ‘prosumer amendment’, indicates that politicization of renewables policy has been uneven in Poland. Public awareness has indeed been growing, and, strengthened by the experience of neighbouring Germany, the focus is primarily on small-scale – not large-scale – renewables.

Despite the chaotic drafting and legislative action between 2010 and 2016, there has actually been relatively little political competition in the classic sense. Political party programmes revealed a weak focus on renewable energy up until the 2019 Polish electoral campaign. Throughout that period, the PSL and the Palikot Movement/Your Movement were the strongest advocates of renewable energy generation, whereas the position of the PiS is very difficult to pinpoint – struggling between strong prosuming attitudes to open hostility towards windpower.

Put in the language of political and organizational field theory, the dominant institutional logics of the organizational ‘conquers’ the political. This in turn is linked to the fact that in the case of Poland it is very difficult to draw a clear line between the two, although the organizational field appears dominant. This is additionally reinforced by the surprising ease with which individuals cross the frontier between political posts (parliamentarians, political ministerial officials) and organizational roles (leadership and supervisory positions in state-owned and private companies). This ease of passing through the proverbial revolving door is not seen as problematic, simply because the interest of large energy-industry players is equated with the interest of the state (Szulecki 2018).

That last point can be explained in purely rational terms, concerning how the political economy of the Polish energy sector is organized. If (partly) state-owned energy companies generate income that can be used by the state budget, the state will have an incentive to design policies that protect their business model and maximize budgetary profits. A switch to dispersed renewables would require a complete paradigm change – thereby challenging the existing hegemonic professional logic with the energy technology development logic of the renewables actors. Large-scale renewables can be integrated into the centralized model, but that feat is much more difficult for small-scale and decentralized production.

Changes in government often bring policy reversals, but rarely a shift in the overall approach to energy policy. Even the otherwise drastic political rupture in Poland, when, after eight years in power, the Civic Platform liberal-conservative government was replaced by the conservative-nationalist Law and Justice Party, can be seen as an example of continuity in energy and climate policy.

The European environment has been crucial in pushing for stronger renewables support policies in Poland, while the apparent legislative instability is strongly linked to the highly conflictual political field. On the other hand, the choice of specific instruments, within the confines of options acceptable to the EU, is best explained by the stable and segmented organizational field, dominated by the professional logic of the centralized, engineer-led coal sector, which in turn is linked to the importance of Poland’s natural resource endowment.

Poland’s current renewable energy policy mix seems optimal for the actors dominating the organizational field. Indeed, changing *that* situation would require a deep paradigm shift and a total reversal of the political economy of the energy sector.

Interviewees

- 1 Renewable energy consultant, 16 March 2016, Warsaw
- 2 Renewable energy consultant, 2 February 2018, telephone interview

Notes

- 1 However, an amendment from 7 June 2018 has changed that system once again, introducing a feed-in tariff for small renewables installations (< 500 kW), an option of a feed-in premium for mid-sized installations (500–1000 kW), and an auctioning scheme for

installations larger than 500 kW. The tender system is similar to the one established in 2016, but the resulting price is the basis for Contracts for Difference (CfD), and the number of technology ‘baskets’ was reduced to five: biogas and biomass; hydro, geothermal, liquid biofuels and offshore wind farms; agricultural biogas; onshore wind and photovoltaic farms; hybrid installations. These changes occurred after the project’s research period.

- 2 During the important plenary meeting of the Commission for Environmental Protection on a Pilot Executive Program for renewables, 2003–2005, eight out of ten policy-makers who took the floor mentioned the EU as a direct or indirect influence. Additionally, six of the experts and civil servants also referred to EU regulation and influence, see *Biuletyn* 2003a.
- 3 Personal communication with a Polish environmental movement expert, April 2013. In 2016 the main expert of EnergySys, Bolesław Jankowski, became the vice-president of the state-controlled PGE energy company.
- 4 In fact, at the time, legislative transparency was improving significantly. Cianciara reports that by 2009 formal consultations were taking place, but the legislators often organized them at the latest possible stage to fulfil the formal requirement but limit societal impact (2015: 66). A more recent study, however, found that by 2012, 93% of governmental legislative projects were subject to consultations and 50% of these involved consultation with more than 20 entities – signalling an increase in openness and transparency of the process during the second half of Civic Platform/PSL coalition period in office (Kopińska et al. 2014).

References

- AGH (2007) ‘Rozwój energetyki wiatrowej’, Retrieved from https://zasoby1.open.agh.edu.pl/dydaktyka/inzynieria_srodowiska/c_odnaw_zrodla_en/files/rozwoj.htm, 24 February 2018.
- Ancygier, A. (2013a) *Misfit of Interest Instead of the ‘Goodness of Fit’? Implementation of European Directives 2001/77/EC and 2009/28/EC in Poland*. Hamburg: Verlag Dr. Kovač (Schriftenreihe Schriften zur Europapolitik, Bd. 20).
- Ancygier, A. (2013b) ‘Poland and the European climate policy – an uneasy relationship’, *e-Politikon* 7: 76–93.
- Ancygier, A. & K. Szulecki (2014a) *A Common Renewable Energy Policy in Europe? Explaining the German-Polish Policy Non-Convergence*. ESPRi Working Papers 4.
- Ancygier, A. & K. Szulecki (2014b) *Does Local Energy Mean Renewable? Report from a Survey on the Acceptance for the Development of Renewable Energy Sources Among Polish Local Authorities*. ESPRi Report (1).
- Biuletyn (2001) *Komisja Ochrony Środowiska, Zasobów Naturalnych i Leśnictwa*, 25 October, Biuletyn Komisji Sejmowej 33/IV.
- Biuletyn (2002) *Komisja Skarbu Państwa /nr 20/*, 16 April 2002, Biuletyn Komisji Sejmowej 487/IV.
- Biuletyn (2003a) *Komisja Ochrony Środowiska, Zasobów Naturalnych i Leśnictwa /nr 56/*, 7 January, Biuletyn Komisji Sejmowej 1378/IV.
- Biuletyn (2003b) *Komisja Finansów Publicznych /nr 148/*, *Komisja Ochrony Środowiska, Zasobów Naturalnych i Leśnictwa /nr 60/*, 25 February, Biuletyn Komisji Sejmowej 1541/IV.
- Biuletyn (2005) *Komisja Rolnictwa i Rozwoju Wsi /nr 4/*, 6 December, Biuletyn Komisji Sejmowej 60/V.
- Biuletyn (2006a) *Komisja Rozwoju Przedsiębiorczości /nr 62/*, 14 November, Biuletyn Komisji Sejmowej 1271/V.

- Biuletyn (2006b) *Komisja Ochrony Środowiska, Zasobów Naturalnych i Leśnictwa /nr 40/*, 15 November, Biuletyn Komisji Sejmowej 1290/V.
- Biuletyn (2006c) *Komisja Gospodarki /nr 90/*, *Komisja Ochrony Środowiska, Zasobów Naturalnych i Leśnictwa /nr 41/*, 15 November, Biuletyn Komisji Sejmowej 1298/V.
- Biuletyn (2007) *Komisja Ustawodawcza /nr 69/*, 24 January, Biuletyn Komisji Sejmowej 1538/V.
- Boasson, E.L. (2021) 'Europeanization of renewables support', pp. 58–72 in E.L. Boasson, M.D. Leiren & J. Wettstad (eds), (this book) *Comparing Renewables Policy: The Role of Political, Organizational and European Fields*. London: Routledge.
- Ceglarz, A. & A. Ancygier (2015) 'The Polish renewable energy and climate policies under the impact of the EU', pp. 137–168 in I.P. Karolewski & M. Sus (eds), *The Transformative Power of Europe: The Case of Poland*, 1st ed. Baden-Baden: Nomos.
- Chojnacki, I. (2016) 'Większe obostrzenia wobec wiatraków niż elektrowni węglowych?' *WNP.pl*, 13 March.
- Cianciara, A. (2015) 'Interest representation in Poland after EU accession. More regulated, professional and legitimate?' pp. 55–76 in I.P. Karolewski & M. Sus (eds), *The Transformative Power of Europe: The Case of Poland*, 1st ed. Baden-Baden: Nomos.
- ClientEarth (2013) 'Analiza prawna 'Mały Trójpak' a dyrektywa 2009/28/WE z dnia 23 kwietnia 2009 r. w sprawie promowania stosowania energii ze źródeł odnawialnych', *ClientEarth*. Retrieved from www.clientearth.org/reports/20130820_analiza_zgodnosci_malegotrojpakuz_dyrektywaoze_final_aktualizacja%20prosument.pdf, 10 March 2018.
- Derski, B. (2017) 20 lat Prawa energetycznego. In *Wysokie Napięcie*, 10 April.
- Dryzek, J. & L. Holmes (2002) *Post-Communist Democratization. Political Discourses Across Thirteen Countries*. Cambridge: Cambridge University Press.
- EC BREC (2000) 'Ekonomiczne i prawne aspekty wykorzystania odnawialnych źródeł energii w Polsce. Europejskie Centrum Energii Odnawialnej', *Warsaw*. Retrieved from www.pga.org.pl/prawo/ekonomiczne_i_prawne_aspekty.pdf, 15 February 2018.
- Gram w Zielone (2018) 'Symulacja aukcji dla OZE. Jakie ceny zaoferowali inwestorzy?' 18. September 2018. Retrieved from <http://gramwzielone.pl/trendy/32650/symulacja-aukcji-dla-oze-jakie-ceny-zaoferowali-inwestorzy>, 15 May 2018.
- Grużewski, D. (2004) 'Energetyczna unia personalna', *Czysta Energia* 4(32).
- IEO (2016) 'Rok temu Sejm przyjął ustawę o OZE. Komentarz IEO', *Gram w Zielone*, 19 February. Retrieved from <http://gramwzielone.pl/trendy/20516/rok-temu-sejm-przyjal-ustawe-o-oze-komentarz-ieo>, 24 February 2018.
- IEO (2017) *Historia Instytutu Energetyki Odnawialnej*. Warsaw. Retrieved from <http://ieo.pl/pl/o-instytucie/historia>, 2 February 2017.
- Jankowska, K. (2010) 'Poland's climate change policy struggle. Greening the East?' pp. 163–178 in R. Wurzel & J. Connelly (eds), *The European Union as a Leader in International Climate Change Politics*. London: Routledge.
- Jankowska, K. (2012) *Die Kräfte des Wandels. Die Wandlung Polens von einer auf Kohle basierenden zu einer an erneuerbaren Energien orientierten Gesellschaft*. PhD Dissertation, Freie Universität Berlin, Berlin.
- Jankowska, K. (2017) 'Poland's clash over energy and climate policy. Green economy or grey status quo?' pp. 145–158 in R. K.W. Wurzel, J. Connelly & D. Liefferink (eds), *The European Union in International Climate Change Politics. Still Taking a Lead?* London: Routledge.
- Jankowska, K. & A. Ancygier (2017) 'Poland at the renewable energy policy crossroads – an incongruent Europeanization?' pp. 183–203 in I. Solorio & H. Jörgens (eds), *A Guide*

- to EU Renewable Energy Policy. Comparing Europeanization and Domestic Policy Change in EU Member States. Cheltenham: Edward Elgar.
- Kaczorowska, M. (2013) 'Odnawialne źródła energii w programach polskich partii politycznych', pp. 95–114 in K. Książkowski, K. Pronińska & A. Sulowska (eds), *Odnawialne źródła energii w Polsce. Wybrane problemy bezpieczeństwa, polityki i administracji*. Warszawa: Dom Wydawniczy ELIPSA.
- Kijewska, B. (2014) 'Problematyka energetyczna w ujęciu politycznym: kwestie energetyczne w programach politycznych', pp. 1215–1227 in P. Naukowo-Metodyczny (ed), *Edukacja dla Bezpieczeństwa VII* (3).
- Komisja (2014) *Komisja Nadzwyczajna d.s. Energetyki i Surowców Energetycznych /32/*, Biuro Komisji Sejmowych Kancelarii Sejmu, 28 August.
- Kopińska, G., G. Makowski, P. Wąglowski & M.M. Wiszowaty (2014) *Tworzenie i konsultowanie rządowych projektów ustaw. Raport z badania nad sposobem prowadzenia konsultacji publicznych i tworzenia dokumentów towarzyszących rządowym projektom ustaw w 2012 roku*. Warsaw: Fundacja Batorego.
- Książkowski, K. & K. Pronińska (2017) *Studium barier administracyjnych i proceduralnych w rozwoju OZE na obszarach wiejskich*. Warszawa: Institute for Security, Energy & Climate Studies.
- Leiren, M.D. & I. Reimer (2021) 'Germany: From feed-in tariffs to greater competition', pp. XX–XX in E.L. Boasson, M.D. Leiren & J. Wettstad (eds), (this book) *Comparing Renewables Policy. The Role of Political, Organizational and European Fields*. London: Routledge.
- Marszałek Sejmu (1990) 'Uchwała Sejmu Rzeczypospolitej Polskiej z dnia 9 listopada 1990 r. w sprawie założeń polityki energetycznej Polski do 2010 r.', *Monitor Polski* 43, 24 November. Retrieved from <http://monitorpolski.gov.pl/mp/1990/s/43/332/1>, 16 February 2018.
- Millard, F. (2009) 'Poland. Parties without a party system, 1991–2008', *Politics & Policy* 37(4): 781–798. DOI:10.1111/j.1747-1346.2009.00198.x.
- Ministry of Economy (1999) 'Rozporządzenie Ministra Gospodarki z dnia 2 lutego 1999 r. w sprawie obowiązku zakupu energii elektrycznej i ciepła ze źródeł niekonwencjonalnych oraz zakresu tego obowiązku', *Dziennik Ustaw* 13(119). Retrieved from <http://prawo.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU19990130119>, 16 February 2018.
- Ministry of Economy (2000) 'Rozporządzenie Ministra Gospodarki z dnia 15 grudnia 2000 r. w sprawie obowiązku zakupu energii elektrycznej ze źródeł niekonwencjonalnych i odnawialnych oraz wytwarzanej w skojarzeniu z wytwarzaniem ciepła, a także ciepła ze źródeł niekonwencjonalnych i odnawialnych oraz zakresu tego obowiązku. Internetowy System Aktów Prawnych. Dz.U. 2000 nr 122 poz. 1336', Retrieved from <http://isap.sejm.gov.pl/DetailsServlet?id=WDU20001221336>, 5 May 2018.
- Ministry of Economy (2010) 'Krajowy Plan Działania w zakresie energii ze źródeł odnawialnych. Ministerstwo Gospodarki', 7 grudnia 2010 r. Retrieved from www.me.gov.pl/Energetyka/Odnawialne+zrodla+energii/Krajowy+plan+dzialan, 25 January 2018.
- Ministry of Environment (2000) *Strategia rozwoju energetyki odnawialnej. Realizacja obowiązku wynikającego z Rezolucji Sejmu Rzeczypospolitej Polskiej z dnia 8 lipca 1999 r. w sprawie wzrostu wykorzystania energii ze źródeł odnawialnych. Ministerstwo Środowiska*. Warsaw. Retrieved from www.pga.org.pl/prawo/strategia-OZE.pdf, 25 March 2018.
- Obywatelskie Forum Legislacji (2017) *Jakość stanowienia prawa w pierwszym roku rządów Prawa i Sprawiedliwości. oraz IX Komunikat Obywatelskiego Forum Legislacji*

- o jakości procesu legislacyjnego na podstawie obserwacji w okresie od 11 września do 10 grudnia 2016 roku.* Warsaw. Retrieved from www.batory.org.pl/upload/files/Programy%20operacyjne/Odpowiedzialne%20Panstwo/Komunikat%20z%20IX%20obserwacji.pdf, 13 April 2018.
- PAP (2013) 'Tusk: cel dla OZE chcemy osiągnąć jak najtańszym kosztem dla odbiorcy', *Wirtualny Nowy Przemysł*, 26 March.
- Podrygala, I. (2008) *Erneuerbare Energien im polnischen Stromsektor. Analyse der Entstehung und Ausgestaltung der Instrumente zur Förderung der Stromerzeugung aus erneuerbaren Energien.* Stuttgart: Ibidem-Verlag.
- Rayner, T., M.D. Leiren & T.H.J. Inderberg (2021) 'The United Kingdom: From market-led policy, towards technology steering', pp. XX–XX in E.L. Boasson, M.D. Leiren & J. Wettstad (eds), (this book) *Comparing Renewables Policy: The Role of Political, Organizational and European Fields.* London: Routledge.
- Sejm (1997) 'Ustawa z dnia 10 kwietnia 1997 r. Prawo energetyczne', Retrieved from <http://prawo.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU19970540348>, 26 May 2018.
- Sejm (1999) 'Rezolucja Sejmu Rzeczypospolitej Polskiej z dnia 8 lipca 1999 r. w sprawie wzrostu wykorzystania energii ze źródeł odnawialnych. Internetowy System Aktów Prawnych. M.P. 1999 nr 25 poz. 365', Retrieved from <http://isap.sejm.gov.pl/DetailsServlet?id=WMP19990250365>, 16 April 2018.
- Sejm (2005) 'Ustawa o zmianie ustawy – Prawo energetyczne oraz ustawy – Prawo ochrony środowiska. Internetowy System Aktów Prawnych. Dz.U. 2005 nr 62 poz. 552', Retrieved from <http://isap.sejm.gov.pl/DetailsServlet?id=WDU20050620552>, 3 June 2018.
- Sejm (2014) 'Lista osób zgłoszonych do udziału w wysłuchaniu publicznym w Sejmie. Archiwum Sejmowe. Rządowy projekt ustawy o odnawialnych źródłach energii (druk nr 2604)', Retrieved from www.sejm.gov.pl/Sejm7.nsf/agent.xsp?symbol=LISTA_ZGL_OSZ&NrKadencji=7&NrDruku=2604, 15 April 2018.
- Sejm (2016) 'Ustawa z dnia 22 czerwca 2016 r. o zmianie ustawy o odnawialnych źródłach energii oraz niektórych innych ustaw', Retrieved from <http://prawo.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20160000925>, 16 January 2018.
- Skjærseth, J.B. (2018) 'Implementing EU climate and energy policies in Poland: Policy feedback and reform', *Environmental Politics* 27(3): 498–518.
- Szulecka, J. & K. Szulecki (2013) 'Analysing the Rospuda River controversy in Poland: Rhetoric, environmental activism and the influence of the European Union', *East European Politics* 29(4): 397–419.
- Szulecka, J. & K. Szulecki (2019) 'Between domestic politics and ecological crises: (De) legitimization of Polish environmentalism', *Environmental Politics*. DOI:10.1080/09644016.2019.1674541.
- Szulecki, K. (2018) 'The revolving door between politics and dirty energy in Poland: A governmental industrial complex', pp. 98–107 in P. Bartlett Quintanilla & P. Cummins-Tripodi (eds), *Revolving Doors and the Fossil Fuel Industry: Time to Tackle Conflicts of Interest in Climate Policy-Making.* Retrieved from www.greens-efa.eu/files/doc/docs/3d2ec57d6d6aa101bab92f4396c12198.pdf, 1 January 2019.
- Szulecki, K. & A. Ancygier (2015) 'The new Polish government's energy policy: Expect more state, less market', *Energy Post*, 30 October.
- Szulecki, K., A. Ancygier & D. Szwed (2015) *Energy Democratization? Societal Aspects of De-Carbonization in the German and Polish Energy Sectors.* ESPRi Working Paper No. 5, ESPRi: Wrocław.

- Szulecki, K., T. Borewicz & J. Waluszko (2015) 'A brief green moment. The emergence and decline of the Polish anti-nuclear and environmental movement', *Interface* 7(2): 27–48.
- Szulecki, K. & J. Kuszniir (2017) 'Energy security and energy transition: Securitisation in the electricity sector', pp. 117–148 in K. Szulecki (ed), *Energy Security in Europe: Divergent Perceptions and Policy Challenges*. London: Palgrave Macmillan.
- UOKiK (2014) 'HT.359 – Consultation on Community Guidelines on State Aid for Environmental Protection, UOKiK', *Warszawa*, 14 February 2014.
- Urząd Rady Ministrów (1991) *Polityka Ekologiczna Państwa*. Warsaw. Retrieved from http://environet.eu/prawo/polityka_ekologiczna.htm, 12 February 2018.
- Wedel, M. (2016) *European Integration of RES-E Promotion. The Case of Germany and Poland*. Springer (Energiepolitik und Klimaschutz. Energy Policy and Climate Protection).
- Wiśniewski, G. (2011) 'Dekada zawirowań – meandry rozwoju OZE w latach 2001–2010', *Gazeta Wyborcza*, 21 September.
- Wiśniewski, G. (2013) 'Energetyczna rewolucja i kontrewolucja', *Kultura Liberalna* 229(22).
- Wiśniewski, G. (2015) 'Dylematy strategiczne sektora odnawialnych źródeł energii, Energetyka Społeczeństwo', *Polityka* 1: 37–64.