This Briefing Paper presents an assessment of the political economy of Poland with regards to the low-carbon transition. This paper is part of a series of briefings on the four Central European states forming the “Visegrád Group”. Often perceived as one unified bloc working against the low-carbon transition, E3G digs deeper and studies their specificities, their influence and their particular social and economical interests, in order to identify opportunities to accelerate the low-carbon transition, domestically, and at the European level.

A global low-carbon transition is underway, but not all countries are actively participating. Engaging as early as possible, however, is crucial to reap benefits of low-carbon development while avoiding economic losses through stranded assets and abrupt economic shifts. In the European Union (EU), the Visegrád Group in particular is often seen to be attempting to slow down the low-carbon transition, both domestically and by opposing stronger EU climate action.

Against this background, E3G has applied its Political Economy Mapping Methodology (PEMM) to the Visegrád states plus Romania and Bulgaria. The process involves extensive desk-based research as well as stakeholder interviews to identify the key factors influencing a country’s position on energy and climate issues. The “Climate & Energy Snapshot” series summarises the main findings into digestible country briefings. All briefings will be published over the course of 2017.

When taking a closer look, it becomes apparent that there are considerable differences and disagreements between the countries. Identifying these discrepancies is crucial for designing country-specific intervention and cooperation opportunities that support a low-carbon transition.
EXECUTIVE SUMMARY

Poland is the most hardline climate policy opponent in Central and Eastern Europe (CEE). The main reason for this stance is the historically important role of the coal industry, which still provides close to 100,000 jobs and is seen as the answer to energy security problems resulting from dependence on Russian gas and oil imports. As the major coal companies are all partially or fully state-owned, the government also has a direct financial stake in the success of the coal industry.

The newly elected conservative ‘Law and Justice’ (Prawo i Sprawiedliwość, PiS) government has taken steps to funnel new subsidies to coal power stations and won the election on the back of promises to revive the coal industry. The development of renewable energy, except for biomass, is being actively discouraged by the government. Climate change is generally not regarded as an important topic when compared to social issues. Due to the low innovation capacity of the Polish economy, there is a pervasive perception that Poland has nothing to gain and a lot to lose from promoting low-carbon development.

At the EU level, Poland has repeatedly worked to block, delay and water down legislation to promote climate ambition and low-carbon development. The only area in energy and climate policy where they have engaged constructively has been energy security. Poland’s influence is amplified by its traditional role as the leader of the Visegrád Group, where it has often been able to secure support for its climate and energy policy preferences. However, growing differences are beginning to show between Poland and Hungary on the one hand and the Czech Republic and Slovakia on the other. The latter two Social Democrat-led countries feel increasingly uneasy about the authoritarian course of the others and are actively looking for new alliances.

Overall, there are only limited opportunities for engagement on low-carbon development in Poland. In general, climate or low-carbon initiatives have a much greater success if they are framed in terms of energy security and economic opportunity. Some municipalities and the agricultural community in particular have become increasingly interested in developing renewable energy, despite the unsupportive stance of the government. Agriculture, which employs almost 12% of the Polish workforce, also stands to be heavily affected by climate impacts. Concerns over air pollution are another potential driver for action against coal heating and power generation, as evidenced by the successful Kraków Smog Alert protests that led to a ban on coal heating from 2019 onwards.

Finally, the Polish coal sector is increasingly being recognised as unsustainable. Coal mining productivity is exceptionally low and the sector is deeply in debt. Production is projected to fall in any case as hard coal subsidies are phased out and lignite mines will
be depleted. Mainstream voices like the employers’ association Lewiatan are now increasingly making the argument for developing economic alternatives before it is too late.
POLITICAL ECONOMY MAPPING

The Political Economy Mapping Methodology (PEMM) has three primary layers of analysis: national conditions, the political system and external projection and choice. This facilitates country comparisons as the analytical categories are general enough to be applicable to all countries. A key feature of the PEMM is its graphical representation, which condenses very complex information in an easily digestible diagram (see Annex 1).

The analysis of the national conditions aims to identify underlying tensions across key factors that influence a country’s interests regarding the low-carbon transition. The second part examines the political system, especially the power relations between different actors and their alignment with low-carbon development. The interaction between the national conditions and the political system leads to countries making choices on climate and energy policy, which are analysed in a third step. In particular for the purposes of this briefing the analysis of external projection and choice focuses on how a country positions itself at the European level.¹

The PEMM presented in this report was informed by a political landscape study drawn up by the Polish Ecological Club, alongside extensive desk-based research by E3G. Draft PEMMs were tested with country experts in think tanks, NGOs, businesses and politics in Poland. The final draft was informed by their comments and challenges. These country briefings represent the results of this process.

NATIONAL CONDITIONS

The analysis of the national conditions examines six key areas that are important determinants of a country’s national interest in regards to energy and climate policy:

> Energy security
> Climate vulnerability
> Public goods
> High-carbon economy
> Low-carbon economy
> Technology and innovation capability

¹ A more detailed explanation about the Political Economy Mapping Methodology can be found in the Annex.
For each category, the analysis is guided by three main questions. How important is the area in the real economy of the country? Is the area accelerating or inhibiting a low-carbon transition? And, how mature is the debate within this area with regards to a low-carbon transition?

**High carbon economy**

**Summary assessment:**
Poland’s high-carbon economy acts as an important barrier to a low-carbon transition, due to the high dependency on coal and the close ties between the state and coal companies, as well as strong unions.

**Assessment categories:**
- Significance to the national interest: high
- Alignment with low-carbon transition: opposing
- Maturity of the debate: high

Poland’s **high-carbon sector is dominated by the coal industry.** The country’s energy system is extremely dependent on coal. The share of coal in electricity production in 2013 was 84% (50% from hard coal and 34% from lignite). Coal is also widely used in heating – even in households, which are generating 30% of heat from domestic coal. Coal heating is not subject to any environmental standards, thereby exacerbating air pollution.

There are **strong ties between the coal industry and the national government.** The energy sector was spared by the large-scale privatisation of the Polish economy in the 1990s. As a result, the energy sector is an oligopoly, with four out of five hard coal mining companies fully or partially owned by the Polish state. The state therefore has a strong incentive to support these companies.² Lignite mining company ZE PAK is private and secures far fewer jobs than the hard coal companies. As a result, it enjoys much less political support than the hard coal sector.

**Coal sector unions have traditionally been extremely powerful.** A workforce of over 87,000 hard-coal miners and 9,574 lignite miners³ as well as 240 trade unions with significant political power and mobilisation capacity play a key role in maintaining the status quo. Poland also has a stake in other high-carbon sectors such as chemicals, iron as well as steel and glass manufacturing, which form an important part of its industrial base.

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² Lubelski Wegiel Bogdanka, the only hard coal mine to have been privatised, was sold to Italian state-owned ENEA in 2015. See Shveda (7 December 2015) [Revealed: How Poland’s coal bailout may break European laws](https://www.reneweconomy.com.au/2015/12/07/revealed-how-poland-s-coal-bailout-may-break-european-laws/).

³ Industry figures for 2015
As a result, Poland’s high-carbon economy introduces considerable inertia into the political system. Because the country is so enormously reliant on coal, reducing coal-fired power generation will lead to high initial costs in terms of GDP growth and jobs (even if it might be cheaper in the long run). The desire to protect coal has led to significant reluctance on the part of policymakers to manage the decline.

This is unlikely to be sustainable, however. The **Polish coal industry is increasingly unprofitable** and relies heavily on subsidies. In 2014 alone, Polish coal companies lost $500m, or €380 million, and debts totalled €3bn in October 2015.\(^4\) Over two-thirds of coal power plants are more than 30 years old. In addition, lignite production will drop off sharply over the next 20 years, and a significant number of hard coal mines are expected to close due to economic problems, exacerbated by the phase out of coal mine subsidies by 2018 mandated by the EU. **This means that Poland will lose around 85% of its current domestic coal production by 2030.**\(^5\) This “coal gap” will have to be made up by hard coal imports from Russia.

At the same time, the **current government is planning to introduce a capacity market** that is designed to modernise existing and build new coal power plants.\(^6\) Total capacity payments would amount to 90 bn Zlotys (€20.3 bn) over 2021-2030. The government has also adopted a €500 million green bonds scheme which is expected to partly support coal power stations.\(^7\) This would further increase coal lock-in for decades to come and slow down a clean energy transition.

**Low-carbon economy**

**Summary assessment:**
Poland’s low-carbon economy is relatively small, and being held back by a lack of political support. Wind and solar power development in particular is being actively impeded by the government.

**Assessment categories:**
- Significance to the national interest: **low**
- Alignment with low-carbon transition: **supportive**
- Maturity of the debate: **medium**

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\(^4\) Kowalski (12 July 2016) *In Poland, efforts to rescue coal industry will likely come up short*; Shveda (7 December 2015) *Revealed: How Poland’s coal bailout may break European laws*

\(^5\) Deloitte (2016) *Polish Power Sector Riding On The Wave Of Megatrends*

\(^6\) Client Earth (26 August 2016) *Poland’s support for coal through capacity market will hit household bills*

\(^7\) Prasy (12 December 2016) *Wsparcie dla Enei z “zielonych obligacji”?*
Poland’s low-carbon sector is very small. While renewables accounted for 11% of electricity generation in Poland (2015), biomass accounts for 49% of that. Most of that biomass is co-fired in coal power stations. Solar power and wind power in particular are weak and underdeveloped.

Poland’s target under the EU Renewable Energy Directive is 15% until 2020. Official strategies (Polish Energy Policy 2050, National Programme for the Development of a Low-Emission Economy) foresee the same renewables share in 2050, with a maximum set at 20%. The government aims for a 44% CO₂-emissions reduction in total by 2050, showing a complete lack of ambition in promoting low-carbon development. EU energy and climate directives are typically transposed with massive delays. The Energy Efficiency Directive (EED) from 2012 was only implemented in 2016 and significant doubts remain whether the implementation will live up to the spirit of the EED. This is despite recent opinion polls showing 70% support for policy promoting renewables, compared to only 18% for coal.

Domestic legislation actively inhibits the deployment of non-biomass renewables. New wind power projects, for example, have been stopped by a “10H regulation”, meaning that wind farms must be built at a distance from housing of at least 10 times the height of the turbine. This blocks around 98% of the country’s land for wind power development. On top of that, the legislative framework is unstable. In 2015, Poland adopted the Renewable Energy Sources Act to subsidise very small renewables installations (3-10 kW). However, this law was amended in June 2016: feed-in-tariffs for wind and solar energy were lowered substantially, while more support for biomass, biogas and co-firing was created. EU funds are commonly being diverted from low-carbon projects to subsidising coal companies.

Poland’s energy efficiency potential is considerable: energy intensity is far above the EU average (233 vs. 122 kgoe/€1,000) and 70% of single-family buildings in Poland have no or insufficient thermal insulation.

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8 Eurostat, CEE Bankwatch Network (2016) CLIMATE’S ENFANTS TERRIBLES HOW NEW MEMBER STATES’ MISGUIDED USE OF EU FUNDS IS HOLDING BACK EUROPE’S CLEAN ENERGY TRANSITION
9 Noerr (24 May 2016) New Act on Energy Efficiency passed in Poland
11 Reuters (2016) Poland adopts limits on where wind farms can be built, May 23 2016 http://www.reuters.com/article/us-energy-poland-windfarm-idUSKCN0YE17V
12 The situation is better for offshore wind parks, which are not affected by the minimum distance requirements. A first 1.2 GW offshore windpark has been licensed for construction in 2016. See http://www.windpoweroffshore.com/article/1404852/polands-first-offshore-project-wins-permit
13 CEE Bankwatch Network (2016) CLIMATE’S ENFANTS TERRIBLES HOW NEW MEMBER STATES’ MISGUIDED USE OF EU FUNDS IS HOLDING BACK EUROPE’S CLEAN ENERGY TRANSITION
14 Eurostat (2016) Energy intensity of the economy
efficiency in the public sector and industry, but little policy support for energy efficiency improvements in buildings, appliances and transport has been given.\textsuperscript{16}

However, municipalities and farmers are increasingly interested in promoting renewables. The Polish Peasants’ Party (PSL) is the only major political party that is explicitly in favour of non-biomass renewables. There is some transformational potential in promoting a low-carbon transition at the local level and in increasing energy efficiency measures.

### Technology and innovation capability

**Summary assessment:**
Private sector innovation capacity is weak, while public sector fails to provide stable and coherent support framework.

**Assessment categories:**
- Significance to the national interest: medium
- Alignment with low-carbon transition: opposing
- Maturity of the debate: low

Poland ranks 45th on the Global Innovation Index, only ahead of Greece and Romania in the EU. It has one of the lowest Research & Development (R&D) intensities in EU, and the number of scientific publications and patent application is below EU average. In 2013, Poland spent 0.87% of GDP on R&D, rising to 0.94% in 2014.\textsuperscript{17} This is far below the EU average of 2.02%. R&D intensity has increased by 35% between 2007 and 2011, partly as a result of increased EU Cohesion Policy funding.\textsuperscript{18} However, it is unlikely that Poland will achieve its current target of 1.7% of GDP spent on R&D by 2020. Poland’s weak innovation capacity is a major barrier to a low-carbon transition as it contributes to the perception that Poland’s economy will have little to gain from it.

The private sector has especially poor innovation capability. According to a recent Deloitte survey, only 44% of businesses have an innovation strategy. Only about one-third of Poland’s R&D spending comes from businesses, which is exceptionally low. Companies, especially in industry, compete on price rather than innovation.

The availability of qualified R&D personnel is a key issue. Poland ranks below Hungary and the Czech Republic in the Human Capital index. “Brain drain” of young people


\textsuperscript{17} Eurostat (2016) *Gross domestic expenditure on R&D (GERD) % of GDP*

\textsuperscript{18} European Commission (2014) *Innovation Union Competitiveness Report 2013*
working in other EU countries exacerbates the skill gap. On top of that, cooperation between businesses, universities and other R&D centres is inadequate.  

An enabling policy framework for innovation is sorely lacking, despite a new tax incentive being introduced in 2016. Incentive systems in the rest of Europe, including other countries in CEE, offer much higher innovation grants and tax incentives.

Policy inconsistency exacerbates the situation. Poland’s Strategy for Innovation and Efficiency of the Economy is markedly at odds with its Energy and Transport strategies. A lot of EU Cohesion funding supports the modernisation of unsustainable sectors such as coal, rather than future-oriented low-carbon technologies.

This is holding back innovation capacity of Polish businesses. Despite the widespread opinion that Poland has little to gain from the low-carbon transition, related fields such as bio- and nanotechnologies, environment-related technologies and ICT are relative areas of strength of Polish company R&D, according to the OECD.

Energy security

Summary assessment:
Energy security concerns cement reliance on coal, while the security benefits of efficiency and renewables are not yet well reflected in the public debate.

Assessment categories:
Significance to the national interest: high
Alignment with low-carbon transition: opposing
Maturity of the debate: medium

Poland relies heavily on coal and biomass as indigenous resources, which jointly cover close to 30% of energy demand to safeguard energy security. Due in part to its heavy coal use Poland has the third-lowest energy import dependency in the EU (28.6% in 2014, EU average: 53.5%).

Poland has very little oil and gas reserves. It relies on imports to cover 94% of oil and 72% of gas demand. While oil is mainly used in the transport sector, gas is mainly used

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21 Department of Social Economy and Public Benefit Strategies, programmes and funds
22 OECD (2012) STI Poland
in industry and heating. Oil and gas jointly account for 32.5% of Polish energy consumption.\textsuperscript{25} The country is \textbf{very dependent on Russia for oil and gas imports} and pays among the highest gas prices in the EU.\textsuperscript{26} Over 90% of crude oil imports and about 70% of gas imports come from Russia. This is extremely concerning to the Polish public both for historical reasons and given Russia’s recent actions towards Central and Eastern European countries.

Poland also has \textbf{poor gas and electricity interconnectors}. The country has among the lowest level of electricity interconnection of any EU country.\textsuperscript{27} Gas interconnectors with other EU countries are typically not bi-directional, so that Poland would find it more difficult to be supplied by other member states in case of gas supply shortages than e.g. the Czech Republic.\textsuperscript{28} Poland also has very low gas storage capacity to make up for supply shortfalls.\textsuperscript{29}

\textbf{Concerns over energy security are a key factor driving the continued reliance on coal} in Poland’s National Energy Strategy, as well as related policy documents. The considerable energy security benefits of energy efficiency and renewables are not reflected in government policy. The case for the energy security benefits of renewables and efficiency is beginning to be made in the public debate, but still far from being generally accepted by the mainstream.

\section*{Public goods}

\textbf{Summary assessment:}

Comparatively little value is placed on the environment, but the health impacts of air pollution could help achieve greener energy and transport sectors.

\textbf{Assessment categories:}

Significance to the national interest: \textit{low}  
Alignment with low-carbon transition: \textit{supportive}  
Maturity of the debate: \textit{low}

In 2014, \textbf{government spending in Poland accounted for 42% of its GDP}. Only 1.8% of this were spent on environmental protection, 12.5% on education, 38.3% on social protection, 10% on health and 13.5% on general public services. \textbf{Polish spending is}

\begin{footnotesize}
\textsuperscript{25} European Commission (2016) \textit{EU Energy in Figures/ Statistical Pocketbook 2016}  
\textsuperscript{26} https://www.pol-int.org/en/salon/polish-views-climate-policy-en  
\textsuperscript{27} DIW (2015) \textit{The assessment of the 10% interconnection target: security of supply, market integration and CO2 impacts}  
\textsuperscript{28} ENTSO-G (2017) \textit{Gas network capacity dataset}  
\textsuperscript{29} IEA (2014) \textit{Energy Policies of IEA Countries: European Union 2014 Review}
\end{footnotesize}
markedly below OECD average on health and above average on social protection. Overall, 20.8% of the Polish economy is devoted to producing public goods and services, which is slightly below the OECD average of 21.1% (all OECD data).\textsuperscript{30}

In opinion surveys, Polish citizens express concern for health and social security (21%), but much less for the environment (4%) and education (3%). Only 43% express satisfaction with the health system, far below EU average.\textsuperscript{31} In the World Value Survey, Poles express above average concern for the environment but the majority of respondents believes that it is more important to protect jobs and economic growth, even if the environment suffers as a result.\textsuperscript{32}

The most important environmental issues are air pollution (56%) and waste (54%). Other environmental issues are regarded as much less relevant. Concern about air pollution is at EU average, even though Poland has among the worst air pollution in the EU.\textsuperscript{33}

However, protest marches against air pollution have become more common with major demonstrations e.g. in Kraków led by Kraków Smog Alert. Kraków has subsequently banned coal use in households, restaurants and offices starting 2019. This is promising, but it seems to be the exception rather than the rule. If there is a perceived conflict of environmental and social objectives, the latter are typically regarded as much more important.

Climate Vulnerability

Summary assessment:
Climate impacts on key sectors such as agriculture and power generation are increasing the awareness of climate change, but have not yet led to major shifts in the public debate.

Assessment categories:
Significance to the national interest: \textit{medium}
Alignment with low-carbon transition: \textit{supportive}
Maturity of the debate: \textit{low}

\textsuperscript{30} OCED (2015) \textit{Government at a Glance}
\textsuperscript{31} European Commission (2014) \textit{Special Eurobarometer 416 Attitudes of European Citizens Towards the Environment Report}
\textsuperscript{32} World Value Survey, Wave 6
\textsuperscript{33} EEA (2015) \textit{Air quality in Europe — 2015 report}
Poland’s geophysical vulnerability to climate change is comparatively low (4th least vulnerable EU country). However, significant consequences are to be expected. The main impacts of climate change in Poland are expected to be longer rainless periods, punctuated by torrential rains, groundwater level decrease and generally decreased water availability as well as increased frequency of extreme weather events such as floods and landslides.

Agriculture is particularly vulnerable to climate change, especially to increased drought frequency and intense precipitation periods. The agricultural labour force still represents close to 12% of the overall workforce – far above the EU average of 5%.

The old energy system is also very vulnerable to climate change: The heat wave and low water levels of 2015 created cooling problems for power plants, which led to power cuts and energy supply restrictions for Polish industry.

Poland has an Adaptation Strategy, which will be evaluated in 2020, but adaptation challenges remain. However, many water management issues are currently unresolved and the EU Water Framework Directive has not been transposed correctly. Overall, Poland’s approach to water management and flood prevention is incoherent and uncoordinated. Government finances are heavily impacted by the coal sector’s current malaise and it is not obvious that the country will be able to invest in appropriate adaptation measures to meet expected challenges.

Due to the accumulation of heat waves, floods and low river-levels in recent years, the issue of climate vulnerability is increasingly present in the public debate. This is increasing public awareness of climate change, but the primary political response is adaptation rather than mitigation through low-carbon development. Climate vulnerability is becoming a driver of action for risk-affected groups such as municipal governments as well as the agricultural sector, however.

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34 ND-GAIN (2015) Country Ranking Vulnerability
36 European Commission (21 February 2013) Environment: Commission takes Poland to Court over water legislation
POLITICAL SYSTEM

The political system assessment shows how the national conditions are translated within the political system of the country. Key actors within the political system include the government with its various branches, businesses, civil society groups and the European institutions. The analysis highlights the level of influence and the position of each set of actors with regards to a low-carbon transition.

Basic parameters

Poland is a representative democracy with the Prime Minister (Beata Szydło) as the head of government of a multi-party system and the President (Andrzej Duda) being the head of state. Executive power is exercised jointly by the President and the government, consisting of a Council of Ministers led by the Prime Minister. The President, who is elected every five years, has the power to veto laws and under certain conditions dissolve parliament.

The Polish parliament has two chambers, both of which are elected for four years: the Sejm, with 460 deputies elected on the basis of proportional representation, and the Senate, consisting of 100 directly elected senators. The President, the Council of Ministers, the Sejm and the Senate can all initiate laws. The Senate is an equal co-legislator with the Sejm as it can adopt, amend or reject any measure passed by the Sejm. The party system is dominated by PiS after the 2015 elections, with PiS holding 234 seats in the Sejm and 64 in the Senate. The liberal-conservative Civic Platform is by far the most important opposition party, holding 132 seats in the Sejm and 33 seats in the Senate.

Government and civil service

Summary assessment:
The government dominates the political system in Poland and is the main barrier for progress towards a low-carbon transition.

Assessment categories:
Significance in the political system: high
Alignment with low-carbon transition: opposing

Successive Polish governments have had a strong stance against low-carbon development and in favour of coal. The governing conservative PiS party is not encumbered by a coalition partner and shows an even more hardline stance than previous governments, which seems to be partly ideologically motivated.
The powerful government is firmly against promoting a clean economic transition, with even the environment minister attempting to roll back EU climate policy. The PiS government has recently taken steps to increase the power of the executive.

No major opposition party has any interest in challenging the government’s views in parliament, which largely backs the government’s position on climate and energy issues. However, the Peasant Party (PSL) as well as the Committee on Agriculture and Rural Development are interested in promoting decentralised renewable energy generation as a rural development strategy.

The civil service is relatively weak. It is plagued by incoherence and a lack of coordination across offices.\textsuperscript{38} Regulatory capture, especially by the coal industry, is common. The PiS government has recently passed a law that will increase the politicisation of the civil service by making it easier to hire partisan supporters and fire critics.\textsuperscript{39}

While many local authorities are in favour of coal, there is an increasing interest in promoting local renewable energy, as well as energy efficiency. Some Polish municipalities have already applied for funding to develop low-emission plans in projects funded by the German Environment Ministry. 38 have already developed Sustainable Energy Action Plans in the context of the EU Covenant of Mayors.\textsuperscript{40,41} Under a new law adopted in response to the Kraków air pollution protests, municipalities now have the power to enact air pollution controls and ban coal heating, although this is so far not being widely used.

Business

Summary Assessment: High-carbon business interests dominate business voices, but divisions are beginning to show between different business groups.

Assessment categories:
Significance in the political system: medium
Alignment with low-carbon transition: opposing

\textsuperscript{38} Itrich-Drabarek et al. (2012) Civil Service in Poland
\textsuperscript{39} Frank Bold (2016) Briefing on the Polish Civil Service Act: Risk of politicization in Polish civil service
\textsuperscript{40} German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (15 December 2016) Germany and Poland support municipalities in climate-friendly management
\textsuperscript{41} Covenant of Mayors for Climate and Energy (2016) Database on Sustainable Energy Action Plans
**High-carbon businesses** dominate official positioning and policy. They are firmly against promoting a low-carbon industry and see renewables and energy efficiency as key threats to their business. Decision-making processes in coal and energy companies are heavily influenced by the government, which exerts control through ownership and executive appointments. Because this gives the state a direct financial stake in their survival, however, companies’ interests tend to determine policy thereby creating a powerful nexus of entwined interests. The energy-intensives sector (chemicals, steel and glass) has strong political representation as well with associations such as the Polish Chamber of Chemical Industry (PIPC). However, they are significantly less influential than energy players. While the government pays lip service to protecting the industry against carbon leakage, energy and mining interests are a clear priority of the government. This shows e.g. in Poland’s strong opposition against higher CO₂ prices under the ETS while carbon leakage protection receives much less attention.

**Mainstream business voices** like the Polish employer’s association Lewiatan and former officials from Polish Energy Group (Polska Grupa Energetyczna, PGE) are increasingly speaking out publicly for a change in energy policy and **decreasing the country’s reliance on coal**. As a member of European business lobby BusinessEurope, Lewiatan tends to mirror the stance of the umbrella association. In the Polish context, this makes it a comparatively progressive actor as it has very different views on coal than the government. However, it does not offer full support to the low-carbon transition, which shows, for example, in its opposition to energy efficiency targets.

**The Polish low-carbon industry is weak.** It has not had the chance to develop into a strong sector like in other EU member states and its influence on government and public opinion is minimal. The recent backlash against wind energy under the PiS government has further reduced the influence of the Polish Wind Energy Association, which had been gaining some ground with the previous government. On energy efficiency, mostly foreign-owned companies demand improvements. Polish construction companies are broadly supportive of action on energy efficiency, but do not have a strong influence on the political system.

**The agricultural sector, as a key climate-vulnerable industry, is not strongly mobilised.** There are growing concerns about the vulnerability of agriculture to climate impacts, and an increasing interest in small-scale renewable energy such as biogas and solar energy. There is also local opposition to new lignite mines in the Wielkopolska and Lubuskie regions. However, this has not led to political action at the national level.

Farmers’ protests have historically been quite influential. Farmers’ unions are a significant force capable of mobilising and fighting over issues which affect them and of which they are aware. However, as PiS enjoys strong backing in rural areas, many
farmers support the party’s policy agenda en bloc. While they are thus likely to downplay the climate-vulnerability of agriculture, future floods or droughts could create an opening in this debate.

**Public discourse**

**Summary assessment:**
The public discourse is dominated by trade unions and the mainstream media, which are both uncritical of the government and actively impede a low-carbon transition.

**Assessment categories:**
Significance in the political system: medium
Alignment with low-carbon transition: polarised

**Trade unions** are the dominant political force among organised societal groups and have historically been extremely influential in maintaining the status quo in energy policy. They have a large mobilisation potential as unionisation among coal miners is close to 100% and different coal unions often support each other with “sympathy strikes”. Due to the large number of jobs dependent on hard coal mining and the unions’ often-demonstrated ability to mount large-scale protests and strikes, they have time and again been successful in setting government policy on energy and climate issues and fighting for various social policy measures and subsidies. They also enjoy broad support in the population – a 2015 poll found that 68% of respondents would support the trade unions in a conflict with the government over mining closures.

The **NGO community** is well-established but relatively small. NGOs are struggling with a low public profile and distrust by policy-makers. At the same time, the government is currently enacting association law changes aimed at restricting civil society activity, in particular on Environmental Impact Assessments or other permitting procedures.

The **media** is not diverse and mainly supports the government’s positions. The low-carbon transition is typically portrayed as an attempt by Western Europe to impose its industrial strategy on Poland whilst Poland has nothing to gain from this. The PiS party has recently increased its influence over the media by passing a law allowing them to appoint senior management at publicly owned TV and radio stations. Media

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45 Greenpeace Poland (2016) Ministerstwo Środowiska mówi nieprawdę - znany korespondencję nt. likwidacji systemu ochrony przyrody [AKTUALIZACJA]
organisations also receive a significant part of their advertising revenues from state-owned companies, which limits their independence. Progressive voices exist only in the form of experts that occasionally speak in mainstream media, in small specialised media outlets or in web portals that are not influential beyond their immediate group of supporters.

Public opinion is divided with regard to low-carbon development. On the one hand, there are historical notions of identity, which is tied in many places to coal and heavy industry. At the same time, young Polish citizens increasingly see climate change and environmental issues as a problem that should be addressed. Polls show that renewables enjoy broad passive support in the population. Observers note that the public debate has become more open to issues such as the economic and energy security benefits of energy efficiency and alternative energy sources.

European Union

Summary assessment:
The EU has a crucial influence within the Polish political system. Although its influence is diminishing, the EU sets out the framework for Polish climate and energy policy and thereby influences the low-carbon transition in Poland.

Assessment categories:
Significance in the political system: medium
Alignment with low-carbon transition: supportive

The European Union is a crucial influence on the political system in Poland. After the accession in 2004, the influence of the EU was at its peak, but has been decreasing in recent years. Polish politicians often use the EU as a scapegoat, which furthermore reinforces its diminishing influence.

The EU tries to protect fundamental EU values in Poland. The European Commission is currently conducting an unprecedented inquiry into judicial and media reforms introduced by the PiS government in Poland to assess whether they pose a ‘systemic threat to the rule of law’. Poland is being urged by the European Commission to address these issues. While this is a strong move by the Commission, it will be ultimately limited by Poland’s alliance with Hungary, as rule-of-law sanctions require unanimity to be imposed.

In terms of climate and energy policy, **EU targets as well as the framework directives, set some of the broader conditions for Polish climate and energy choices.** Much of the action that is being taken at the national level is to comply with EU regulations.

Moreover, **EU funds are crucial revenue sources** as they provide close to 60% of total public investments in Poland.\(^47\) Poland is the largest beneficiary of EU funding in net terms. The European Union has allocated €82.5 billion to Poland over the 2014–2020 period. However, these funds are unlikely to support a transformational shift towards a low-carbon transition due to a lack of appropriate coordination, planning and monitoring within the Polish government. In fact, a significant part of the funds are used to support coal power plants and heating, rather than promoting low-carbon alternatives.

**The EU brings great economic and social benefits to Poland** and the population is well aware of that. Polish people are overwhelming pro-EU, with a survey (February 2016) showing that 81% favoured continued EU membership.\(^48\)

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\(^47\) The funding stems from European Regional Development, Social and Cohesion Funds, with a national co-financing rate of between 15% and 50% of project costs, see CEE Bankwatch Network (2016) CLIMATE’S ENFANTS TERRIBLES HOW NEW MEMBER STATES’ MISGUIDED USE OF EU FUNDS IS HOLDING BACK EUROPE’S CLEAN ENERGY TRANSITION

\(^48\) http://www.thenews.pl/1/9/Artykul/242328,Most-Poles-support-Polish-membership-in-EU
EXTERNAL PROJECTION AND CHOICE

This final analytical step of the mapping assesses a country’s stance on European climate and energy policy as well as its broader EU engagement. The assessment is two-dimensional, covering both country engagement on the EU level and how its engagement is perceived in relation to a low-carbon transition.

European climate and energy policy

Summary assessment:
Poland is the most vocal and powerful opponent of EU climate and energy targets within the Visegrád Group and within the EU in general.

Assessment categories:
Country engagement: high
Alignment with low-carbon transition: opposing

Poland is the Member State which is probably most opposed to the EU’s climate and low-carbon development policy goals. The governing PiS party rejects the climate agenda, believing it goes against the Polish national interest. Climate and energy policy is the main focus of Poland’s activity at the EU level and generally trumps other issues – even migration.

PiS rejects the EU climate and energy package for 2030 agreed in 2014 under the previous government and is calling for a renegotiation. It is also blocking efforts supporting the ambitious implementation of the Paris Agreement, including for example a review mechanism or a revision of long-term goals to be in line with “well below 2°C”.

Poland uses its influence in the Visegrád Group to block or water down EU climate and energy policy, whether in terms of overall targets, the Emissions Trading System, the Effort Sharing Decision, Energy Efficiency Directive or the Industrial Emissions Directive.

Poland’s approach to EU climate policy is to comply with the minimum required while doing its utmost to preserve its coal-dependent energy system and minimise the impact of environmental regulation. EU climate and energy directives are habitually transposed late and Poland has repeatedly negotiated opt-outs, derogations and special concessions from its EU partners in many areas.
The only area where the Polish government has engaged constructively in the past year has been on energy security. For instance, Poland has supported the Commission in the Decision on Intergovernmental Agreements in Energy reached in December 2016. The Commission’s oversight over those deals gives Poland more bargaining power when negotiating gas supply contracts with Gazprom. The Energy Union framework likewise goes back to a concept long-backed by former Prime Minister Jerzy Buzek, and re-launched by the previous government under Donald Tusk, although Poland had intended it to be purely focusing on energy security rather than the broader transition of the European energy system.

**Broader EU engagement**

**Summary assessment:**
Poland is a strong voice within the European Union, as the traditional leader of the Visegrád Group. Overall, it is trying to shape the EU more into an economic and security union.

**Assessment categories:**
Country engagement: medium
Alignment with low-carbon transition: opposing

While Poland draws enormous economic benefits from EU membership and the EU is generally viewed favourable, the government is dissatisfied with the bloc’s current direction. Poland is working to shape the EU more into an economic and security union, rather than the value-based liberal democratic union it became over time.

Poland has traditionally acted as leader of the Visegrád Group and by extension CEE more broadly. There are attempts to broaden this alliance by including Romania and Bulgaria, as well as the Baltic states, but this is looking increasingly unlikely as cracks in the Visegrád Group are beginning to show.

The refugee crisis occupied a lot of attention at EU level, to the detriment of other important issues. Poland has been a vocal critic of the quota system for solving the refugee crisis and has opposed taking in and supporting refugees in general. It has contributed to intra-EU divisions on refugee policy and made a common solution more difficult to achieve.

The governments of Poland and Hungary, both of which are moving into a more authoritarian direction, are covering each other vis-à-vis the EU. This means that sanctions under Article 7 of the Treaty on the European Union, designed to protect the
rule of law, cannot be credibly invoked as they require unanimity. This reduces the EU’s influence to stop the crackdown on democratic rights that is currently going on in both countries.
Annex 1 – Representation of PEMM results for Poland
Annex 2 – Political Economy Mapping Methodology (PEMM)

The climate diplomacy community sometimes tends to act based on a small sample of information on a country’s position, e.g. analyses of political statements and news headlines. These discrete assessments often fail to appreciate and accommodate the critical interplay between the real economy and political dynamics, and have a narrow focus on a limited range of sectors e.g. energy. Failing to address this interplay often leads to a failure to identify where strategic opportunities and barriers to transformational change exist.

For example, the 15th Conference of the Parties (COP) in Copenhagen in 2009 was such a missed opportunity. In the aftermath, it was crucial to shift countries into a more progressive international position before the Paris COP in 2015. At the time, E3G used the Political Economy Mapping Methodology (PEMM) to deliver targeted interventions. It was essential to understanding what interventions should be taken to address real economy, national and international political dynamics.

E3G’s PEMM summarises abstract information very succinctly and it, crucially, makes countries comparable across a set of defined categories. It combines hard analytical data with informed judgment, drawn from a variety of sources, rather than narrow scientific analysis along a series of fixed indicators. It provides a systematic and consistent approach to determining what constructs a country’s core national interest, and identifies key national and international interventions that can increase domestic ambition and enable more proactive and progressive climate diplomacy. The mapping has been used to support ambitious outcomes under the United Nations Framework Convention on Climate Change (UNFCCC), as well as other diplomatic venues, such as EU climate and energy policy.

The PEMM has three primary layers of analysis: national conditions, political system and external projection and choice. The first level aims to understand and identify tensions across the real economy. The second, analyses power relations between different actors and determines how the national interest is translated within the political system. The third, considers international projection to illustrate how a country positions itself in – for the purposes of this briefing, European – debates in general and towards climate and energy issues specifically.
The PEMM offers a three dimensional assessment:

1. The size assesses the significance of the sector/actor:
   - Low
   - Medium
   - High

2. The colour reflects the alignment with low-carbon transition:
   - Green: supportive
   - Red: opposing
   - Blue: neutral
   - Brown: polarised

3. The transparency of the colour reflects the maturity of the debate:
   - Low
   - Medium
   - Mature

All three dimensions – significance to national interest, alignment with low-carbon objectives, maturity of the debate – are assessed when analysing a country’s national conditions. In the two subsequent parts ‘political system’ and ‘external projection and choice’, a two-dimensional assessment considers significance to national interest and alignment to low-carbon transition.

The PEMMs presented in this report are informed by political landscape studies conducted by partner organisations in each country, alongside extensive desk-based research by E3G. Draft PEMMs were tested with country experts in think tanks, NGOs, businesses and politics. The final draft was informed by their comments and challenges. These country briefings represent the results of this process.
Annex 3 – Data sheet: Poland

General data

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population (2017)</td>
<td>38.0 million</td>
</tr>
<tr>
<td>GDP per capita (2017, current prices)</td>
<td>12,100</td>
</tr>
<tr>
<td>Corruption Index (0 = highly corrupt, 100 = very clean)</td>
<td>60 in 2017, 62 in 2016</td>
</tr>
<tr>
<td>Democracy Index (ranking of 167 countries)</td>
<td>53 in 2017, 48 in 2016</td>
</tr>
</tbody>
</table>

Value added per sector (% of GDP)

- Agriculture, forestry & fisheries
- Industry
- Construction
- Commerce, transport, accommodation & food
- Information and communication
- Financial and insurance activities
- Real estate
- Professional, scientific & technical services
- Public admin., defence, education, health & social work
- Arts, entertainment & recreation

<table>
<thead>
<tr>
<th>Sector</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry &amp; fisheries</td>
<td>15%</td>
</tr>
<tr>
<td>Industry</td>
<td>26%</td>
</tr>
<tr>
<td>Construction</td>
<td>8%</td>
</tr>
<tr>
<td>Commerce, transport, accommodation &amp; food</td>
<td>5%</td>
</tr>
<tr>
<td>Information and communication</td>
<td>4%</td>
</tr>
<tr>
<td>Financial and insurance activities</td>
<td>4%</td>
</tr>
<tr>
<td>Real estate</td>
<td>8%</td>
</tr>
<tr>
<td>Professional, scientific &amp; technical services</td>
<td>4%</td>
</tr>
<tr>
<td>Public admin., defence, education, health &amp; social work</td>
<td>4%</td>
</tr>
<tr>
<td>Arts, entertainment &amp; recreation</td>
<td>2%</td>
</tr>
</tbody>
</table>

Allocation and use of EU Funds (2014-2020)

- Total allocation of European Structural Investment Funds: €86 billion
- Planned investments in energy efficiency: €3.3 billion
- Planned investment in renewables: €940 million

EU Cohesion Policy Investments as share of public investment (2007-2014):

- 50%

Energy statistics

- Gross inland energy consumption (2015, ktoe): 95,434
- Electricity generation (2015, TWh): 159

<table>
<thead>
<tr>
<th>Energy type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid fuels</td>
<td>81.5%</td>
</tr>
<tr>
<td>Biomass</td>
<td>6.3%</td>
</tr>
<tr>
<td>Wind</td>
<td>4.8%</td>
</tr>
<tr>
<td>Hydro</td>
<td>1.0%</td>
</tr>
<tr>
<td>Solar</td>
<td>1.7%</td>
</tr>
<tr>
<td>Gas</td>
<td>3.1%</td>
</tr>
<tr>
<td>Petroleum and products</td>
<td>4.6%</td>
</tr>
</tbody>
</table>

- Energy intensity (2015, kgoe/1000€): 227.1
- Energy poverty (inability to keep home adequately warm): 27.6%
- Employment in coal sector (2018):
  - 99,500 in mining and
  - 13,000 in power plants

- Renewable energy capacity of individuals, collectives, public entities and small enterprises (2015):
  - 1,530 MW wind
  - 15 MW solar
  - 620,000MW wind
  - 290,300MW solar PV
  - 28,800MW biomass
  - 1,000MW small hydro

About E3G

E3G is an independent, non-profit European organisation operating in the public interest to accelerate the global transition to sustainable development. E3G builds cross-sectoral coalitions to achieve carefully defined outcomes, chosen for their capacity to leverage change. E3G works closely with like-minded partners in government, politics, business, civil society, science, the media, public interest foundations and elsewhere.

More information is available at www.e3g.org

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