The Polish views on climate policy [EN]

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1. Overview of preferences

There are few topics that unite the key political actors in Poland as much as the reluctance to EU climate policy. One of the recent cases exemplifying this view is the opinion [1] issued by the Council for Social Dialogue (including the largest trade unions, the association of employers and the government). It contains a harsh critique of the more ambitious EU climate policy proposed by the European Commission (EC). The Council stated sharply that in its view, the EC proposal has a destructive impact on the Polish economy and may lead to an increase of energy poverty. Although parliamentary debate is more diversified (see the parliamentary debate on restructuring the coal mining sector) [2], none of the major political parties openly express their support for EU climate policy goals.

Subsequent Polish governments traditionally contested the major steps of the Commission to adopt more ambitious climate goals. The only attempt to resign from the conflicting attitude was initiated by Prime Minister Donald Tusk. His “energy community” plan meant to trade a greater independence of Poland (and the EU) from
the Russian supplies of gas for consent on more ambitious climate goals. However, after watering down most of its key elements, the interest of the previous and current Polish government in a far more consensual approach to EU climate policy has never materialised again.

The opposition to strict versions of the climate policies is also reflected in the preferences of the society. The World Value Survey reveals that while Poles declare to care more about the environment than Germans or Swedes, most of the respondents in Poland still believe that protecting jobs and economic growth should be the top priority, even if the environment suffers to some extent. [3]

The stance of Polish stakeholders might appear obsolete, but disregarding their argument would be a dangerous mistake. Constructive dialogue as well as the design of the policy that could mitigate the negative effects of low-carbon transition requires understanding their logic.

2. What worries Polish stakeholders?

Flow of labour

A transition towards low-carbon economy will require a substantial flow of labour between sectors. In particular flows away from the mining sector[4] and flows towards sectors relevant for the production of clean energy. Indeed, some of these transitions have already taken place. Over the last 25 years the number of operating mines has been reduced by 2/3 and employment has fallen from 400 000 people to 100 000 people in 2015.

However, one must be aware that the rise and decline of sectors during the transition is rarely associated with smooth flows of workers from one sector to another. A study by Tyrowicz and van der Velde [5] found that during the economic transition of Central and Eastern European Countries only a small fraction of workers managed to change the sector during their life-time career. The change in the composition of sectors, which one can see in the data, results primarily from the demography: the employment in some sectors contracts not because workers change jobs, but because they exit the labour market (and usually retire). This raises the question whether the transition away from the mining sector can be significantly accelerated.

The available evidence suggests that this transition is particularly difficult. Coal miners are relatively low-skilled and they are (traditionally) relatively well paid with an average monthly wage in coal mining at the level 6.9 thousand PLN, compared to the average of 3.9 thousand PLN in the entire economy (2014q1). [6] Despite this wage gap, a large part of society usually sympathizes with coal miners justifying their high wages with the difficult and dangerous working conditions. In a poll done in 2015, 68% of the respondents declared support for the coal-miners in their conflict with the government.[7]

The fear of job loss has led to several coal-miners' protests and demonstrations throughout the last 25 years of economic transformation. The coal mining sector is heavily unionised with trade union coverage reaching 100%. In August 2003, a government plan for restructuring the mining sector lead to protests and riots of 10 thousand
coal-miners in Silesia and Warsaw. [8] In January 2015, 2200 coal miners went on strike and occupied the coal-mines following a government proposal to close the least profitable coal-mines. [9]

Security of supplies from abroad

One of the main issues in public debate on energy transition is security understood as security of supplies and competitive price. Almost all oil and 72% of natural gas are imported, mostly from Russia. In the first days of January 2006, after a dispute between Russia and Ukraine, the supply of natural gas to Poland fell unexpectedly by 14%. [10] On January 6, 2009 the supply of gas from Russia through Ukraine stopped completely (although this was compensated by the supply of Gazprom gas through Belarus). [11] The price of the gas in Poland compared to the price in other EU-member states was another important concern. Despite improving energy infrastructure, introduction of the third energy package[12] and the integration of EU energy markets, the price of gas from Russia was differing largely from one country to another. Still in 2012, Poland has had the highest price of gas among the EU-member states. [13] The use of natural gas prices as a tool used by the Russian government to exert political pressure on the Ukrainian and Georgian [14] governments, raise concerns of Polish stakeholders and motivates all subsequent governments to reduce the role of imported fuels in the Polish energy mix.

Intermittency of Renewable Energy Sources

The share of renewable energy sources (RES) witnessed a rapid increase over the last years, particularly due to the increased share of biomass and on-shore wind turbines. However, the growth of the latter will likely decelerate in the coming years due to the introduction of policies limiting the space available for the construction of turbines. The law is motivated by the negative effect the turbines could have on the health of nearby inhabitants. In addition, the government fears that reliance on intermittent renewable energy sources can limit energy security. Intermittency of RES limits the lifetime of coal-power plants which are not technically prepared for frequent switch of loads. This implies financial losses for the conventional energy sector. However, the replacement of coal-fired power plants with gas power plants which are well suited to balance the intermittency of RES [15] would result in higher reliance on fuels imports. In the Strategy for Responsible Development of Poland till 2025 [16], the government has explicitly stated that renewable energy sources will receive support as long as their intermittency is limited.

Capital vs. labour

Several studies found that since the fall of communism, capital accumulation does not keep pace with the growth of productivity. [17] As a result, capital is relatively scarce in Poland. While the cost of labour is significantly below the costs in other European countries, the cost of capital is significantly higher. This implies that the capital-intensive technological options which are ideal in Western European countries might turn out to be less ideal in the Polish context. [18] On the other hand, labour-intensive technologies could be the best choice even if they are considered too expensive in Western Europe.

Energy Poverty
One of the most important economic problems which are recently noted by stakeholders is energy poverty. On average, Polish households spend 12% of their income on energy, gas and other fuels. This is almost two times more than the EU average. The study by Lis, Sałach, Święcicka (2016) [19] finds that the number of people who can be classified as energy poor (based on the low income, high energy spending criterion) is 4.5 million.

3. What solutions are proposed?

Priorities of the current government lack a complex and long-term framework. Finalisation of the main strategic document “Energy Policy till 2050” which according to the Polish law should be adopted in 2015 was suspended by the current government and it is not likely that it will be adopted in 2016. The 2030 strategy adopted by the previous government is not valid any longer. The only new document which has a chance to be adopted shortly is the national 2020 strategy (“Strategy for responsible development”) but the energy policy is defined in various contexts in rather broad terms. This strategy states an overall challenge – to ensure sufficient energy supplies at an economically acceptable price and with increasing energy efficiency for the Polish economy. It also recognises EU's requirement for energy policy to comply with climate policy and low-emission transition.

In the chapter dedicated to energy, the document highlights three key elements of the energy sector reform: modernization, diversification and allowing for decentralization of energy sources. It mentions in particular:

- Encouraging investment in conventional energy sources
- Use of stable Renewable Energy Sources (mention of hydro and biomass)
- Support for the cogeneration
- Adoption of nuclear technologies
- Support for low-carbon transport
- Investments in energy-saving technologies (such as retrofitting, development of heating networks)
- Search for the hydrocarbons on the territory of Poland
- Support of renewable energy sources for local communities

One can clearly note the absence of support for intermittent energy sources. The government fears that reliance on these technologies limits energy security. Intermittency of RES limit the lifetime of the coal-power plants inducing financial losses for the conventional energy sector. As mentioned before, the replacement of coal-fired power plants with gas power plants would result in higher reliance on import of energy fuels. [20] The government also points out the negative effect that the wind turbines could have on the health of nearby inhabitants.
In addition to the propositions highlighted in the Strategy, the government representatives make frequent references to "clean coal technologies" in the public debate. This takes two forms. First, it implies development and adoption of highly advanced technologies such as gasification of coal. Second, it assumes replacement of old coal-fired power plants by the new ones, based on best currently available technologies allowing to burn coal much more efficiently. While the average net energy conversion efficiency of existing coal plants is approximately 36%, those to be built will have the efficiency of 45%. This increase also implies a decrease in coal use and carbon dioxide emissions of roughly the same proportion.

4. Questions for further research

The political rhetoric weighs heavily on the debate about coal transition and makes it difficult to come up with long-term strategies. Both, the problems highlighted by the stakeholders and the solutions they propose require a careful analysis.

While policy makers have high expectations when it comes to the role of energy efficiency improvement by decoupling emissions from growth, they often lack evidence about what economic incentives are needed and what the consequences of their implementation are. The relation between economic, social and technological factors is often unclear. Similarly, one of the most difficult questions is the mutual impact of the coal sector transformation on other sectors.

One fundamental question is how and at what speed Poland can limit the role of coal. This question can be divided into four sub-questions: What are the possibilities for the flow of labour between sectors? What is the social acceptance for transformation? What are the optimal business models in the coal mining sector (the role of state and trade unions)? What is the potential of clean coal technologies (and their interaction with RES)?

The next fundamental question is: if not coal, than what? Further economic growth will increase the energy demand and meeting it with domestic supply is a rather unquestionable political priority. The questions deriving from that are: should Poland develop its nuclear program? How can it gain independence from Russian supplies? What is the potential of domestic research and development on renewable energy technologies?

Responding to those questions involves complicated modeling exercises (use of macro-, micro- and sector-models) and collection of data. Not less important is a qualitative approach coming for instance from sociological or cultural studies which help to explain behaviour, local context etc. On the top of that the whole process requires transparency that can be ensured by involvement of the key stakeholders.

Endnotes

The transcript of the debate is available at the parliamentary webpage:
http://orka2.sejm.gov.pl/StenoInter8.nsf/0/733E5FE...


Around 80% of the electricity production in Poland comes from hard coal and lignite.


Source: Central Statistical Office of Poland, “ Zatrudnienie i wynagrodzenia w gospodarce narodowej w I kwartale 2016 r.”


Source: http://www.tvp.info/328809/biznes/polska-bez-rosyjskiego-gazu-z-ukrainy/

The third energy package was a package of three directives and two regulations, adopted in 2009, aiming at liberalisation of the gas and electricity markets in the EU.

Source: http://metro.gazeta.pl/Portfel/1,127159,11964732,Polska_placi_najdrozej_w_UE_za_gaz_z_Rosji.html


Source: Jiang G., Doyle P. and Kuijs L. (2001), Real Convergence to EU Income Levels; Central Europe From 1990 to the Long Term, IMF Working Papers 01/146, International Monetary Fund; Witajewski-Baltvilks, Catching-up in Poland, Czech Republic and Hungary, Bank and Credit, 2016.


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