

CLIMATE POLICY OF THE EUROPEAN UNION AND POLISH LABOUR MARKET

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Summary

For many years the European Union has been taking ambitious actions as a part of climate policy and the related greenhouse gasses emission limitations, which are based on the will to become the world leader. These actions are also taken in Poland, as a part of restructuration of the main sectors of economy. Further transformation of Polish economy seems inevitable, especially taking into account the outside conditions and the market economy tendencies. However it is important for the transformations not to cause real threats for Polish economy, but to be used in a way that would create new opportunities and competitive advantages, as well as the increase effectiveness of management and work efficiency. The article aims to present costs related to giving up on conventional energy and increasing the usage of renewable energy sources, and their impact on Polish job market.

Keywords

economic growth • the labor market • climate policy

1. Introduction

For some time the topics related to climate (low emissions) policy has been becoming ever more popular in discussions as well as in reports and scientific research. This trend of considerations has been largely caused by the strong promotion of environmental issues by the EU decision-makers. The EU climate strategy, planned up to the year 2050, is a long term project. It requires careful supervision and implementation of new solutions, resulting from the evolution of the approach to climate protection worldwide. Thanks to such strategy the pro-environmental plans and actions of the EU become clearer. They reveal themselves to be a strong lobbying for the ecological technological solutions, raising awareness of the EU member states' populations about the net benefits from the low emissions innovations as well as financial support for investments consistent with the climate policy.

The global negotiations, currently in progress, on the future climate agreement are probably one of the most important multilateral agreements. They aim to find solutions to cope with one of the biggest long-term challenges, which is adjusting to the effects

of climate change and slowing down the process of global warming. The results of the talks in progress will have a great impact on the economic development of the EU member states in the coming decades [Gradziuk and Karaczun 2011].

This is why, in many European countries, discussions on this issue began in order to draw solid conclusions which will present the opportunities and threats related to the implementation of the EU climate policy. It is worth noting that these conclusions should be debated not only on the European level, but they should also take into account specific conditions in individual EU member states.

The energy sources used in the industry have an impact on the final result of the economy and the quality of its surroundings. Apart from the indisputable benefits, the activity of enterprises and consumers also generates various effects, which also often have a negative impact on the wellbeing and standard of life [Włodarczyk 2012]. The industrial development, especially the branches responsible for high emissions, as well as the climate change, contribute to the decline of natural environment, which in turn impacts the economic growth [Rosiek 2012]. The increasing awareness of the problem of environment protection for achieving optimal economic effects makes this topic worthy of being connected to the functioning of the economy as a whole.

The EU actions which are a part of the climate policy are critical for Polish economy [Polityka klimatyczna Polski... 2003], due to economic, structural and social reasons. Adaptation of low emission economy and elimination of traditional fuels from the widely understood industry and production branches are the keys to a broad restructuring of economy. Partially giving up on conventional energy and increasing the contribution of renewable energy sources will result in significant changes on Polish job market. On the one hand, it can result in structural labor surplus and an increase of structural unemployment and the necessity to retrain the personnel, which will consume significant amounts of money. On the other hand, implementation of low emission strategy before the year 2050 will result in vacancies in the sector of low emission technologies as well as in the cooperating branches. However, the economists and experts have not yet decided, if the net outcome of these changes will be positive, or negative, as many publications indicate so.

The article presents important issues related to the consequences of the EU climate policy for the economy and Polish job market.

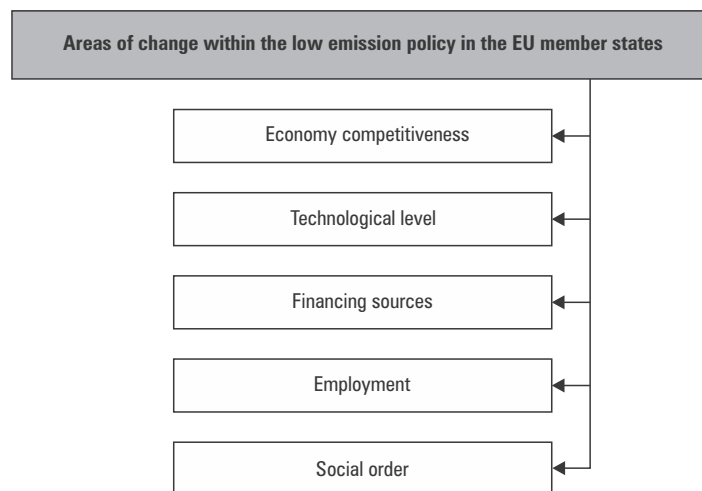
2. The effects of the EU low emission Policy in the economy of the member states

The low emission policy, implemented by the European Union, aims to slow the climate change and to limit its negative impact on the natural environment, the society and the economy of the member states [Korab 2011]. Therefore, the primary strategic objective of the EU is to reconcile economic development, social cohesion and environment protection [Komunikat Komisji... 2009]. However, it seems that it will not happen without apparent social, structural and economic changes. There are at least six areas, in which the effects of the implemented low emission policy in the EU member

states (Figure 1): competitiveness of the economy, technological level, financing sources, economy structure, employment and social order.

The first area involves competitiveness of the economy and is strictly related to a great risk of energy price increase, and also industrial production cost increase. Higher unit production costs may result in the necessity of increasing product and service prices, followed by a decrease of international competitiveness which will result in losing markets.

The next area in which some aspects of the EU climate policy may be visible is technological level. Here, dramatic changes should be expected, which should lead to technological advancement of the economy. It may result especially from technological investments, aimed to increase energy production with use of renewable sources. Such changes are possible only if they will receive financial support at the initial stage for research purposes, in order to invent new low emission products and solutions and not just import them. A complementary element for the EU climate policy should be properly directed subsidizations for research and development, in order to create innovation(s) and highly-effective low emission technologies. Besides, an element worth mentioning are the funding cuts for investments in the sectors of economy which use materials and technologies not consistent with the new EU climate policy, e.g. coal and lignite mining. It can lead to technological decline in these sectors, which means that the released human and financial resources would have to be managed effectively.



Source: author's study

Fig. 1. Areas of changes in the economy and the EU low emission policy

Implementation of the low emission policy has to be followed by many new investments. It will require concrete strategic and financial plans. Lack of capital for these purposes is a major concern in many EU member states, especially in Central and

Eastern Europe. This is why this policy will require significant financial support as well as a search for funding sources both at the of investment in the low emission technologies, but also at the stage of coping the with the effects of low emission production.

The aforementioned action indicate, that implementation of the EU climate policy forces to face very painful structural changes, which may be especially severe for many EU economies, including Polish. The structural changes will be very deep in the economies, which are strongly dependent on traditional energy sources and high emission branches of industry. This may result in a decrease of production, most of all in chemical industry, mining industry, heavy industry and transport. Especially in the Central and Eastern European countries it is hard to expect for this decrease of production to be compensated by an increase of production in the area of advanced, low emission technologies or solutions for producing “green energy”.

Structural changes have to determine deeper modifications in the employment area, where jobs in the high emission sectors will be lost. Significant changes in costs, prices and efficiency may have an impact on the income of households and the possibilities of job creation by enterprises. In the EU member states characterized by lower income, creating jobs in the field of low emission technologies may be problematic, as many of them (at least initially) will be imported by these countries. It seems, that new jobs in the low emission technology industry will be dependent on the funds that have been spent on research and development in this field, which takes not only significant amounts of money, but also time.

Structural changes and job market transformations are a good ground for protests and strikes, which disrupt the social order. The risk is even higher in the economies highly dependent on traditional energy sources and high emission technologies. The skepticism of business and scientific circles for the EU low emission policy, the lobbying of the hitherto energy providers as well as high emission industry may be an important obstacle, difficult to overcome and destructive in terms of social order. Ergo, an essential element for the implementation of low emission strategy should be a proper approach of the government policies of the EU member states, by creating a suitable institutional environment, favorable for the implementation of the EU policy. This system should on the one hand protect the energy consuming branches of industry from production slump, and on the other hand it should make it possible to use the reserves of emission and energy by companies or regions with their surplus.

3. Polish job market in light of the EU low emission policy implementation

Among the most important effects of the EU low emission policy on Polish economy are the job market changes. It reflects a very strong dependency of Polish job market on the enterprises operating in the high emission branches (of industry) as well as big problems Poland has with fulfilling the liabilities resulting from the aforementioned policy. Unconditional and immediate implementation of all assumption of the EU climate policy may be very adverse for Polish job market. There is a risk of losing competitiveness followed by moving the production of energy consuming industrial

products, cement, or heavy chemistry, and in consequence jobs, to other countries, not obliged to reduce greenhouse gases emissions, characterized by lower labor costs.

Most of experts, businessmen and scientists predict that implementation of the low emission policy in Poland will result in disruptions in creating job demand. Some of the economists and politicians deem the EU climate policy and its disadvantageous effects to result in the biggest Poland – EU relations crisis since the accession. The climate package forces the energy consuming industry in Central and Eastern Europe to pay twice as much for its activity only because of the domination of traditional energy sources in these countries. Polish economy has the highest employment in the branches threatened with industry migrations, resulting from the CO₂ emission limits. According to the forecasts of Polish Chamber of Commerce and Ministry of Economy for the years 2014–2050, further CO₂ emission limitations can lead to a loss of 350 thousand jobs and unemployment rate increase by about 2 to 3 percentage points (Table 1). Disadvantageous changes can also occur in the activity rate (0.75 to 1.5 percentage point drop, or a decrease in the number of professionally active people by 150 to 250 thousand). This will result mainly from the employment uncertainty in the energy consuming branches of industry as well as in sectors dependent on traditional energy sources, which may encourage many workers to retire early, especially those in the preretirement period.

Table 1. Predicted quantitative changes in Polish job market in the years 2014–2050, resulting from the EU climate policy implementation

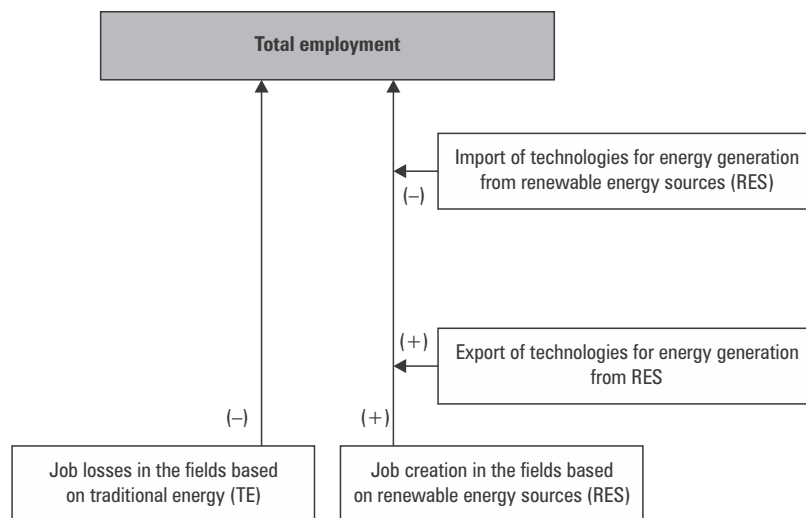
Specification	Period		
	2014–2030	2031–2050	2014–2050
Employment	decrease by 150 thousand people	decrease by 200 thousand people	decrease by 350 thousand people
Unemployment rate	increase by 0.5 to 1 percentage point	increase by 1.5 to 2 percentage points	increase by 2 to 3 percentage points
Professionally active	decrease by 100 to 150 thousand people	decrease by 50 to 100 thousand people	decrease by 150 to 250 thousand people
Professional activity rate	decrease by 0.5 to 1 percentage point	decrease by 0.25 to 0.5 percentage point	decrease by 0.75 to 1.5 percentage point

Source: authors' study based on data predicted by National Chamber of Commerce, the Ministry of Economy and the Central Statistical Office in Warsaw

The general outcome of the climate policy may include two large structural changes (Figure 2):

- job losses in the sectors based on traditional energy and high emission industry (heavy industry, mining, traditional energy sector, cement factories, transport, chemical industry),
- job creation in new sectors based on renewable energy sources and branches of industry working on advanced technologies of obtaining renewable energy.

These two processes will have opposite impact on the total employment and it seems that there is a prevailing view, that this processes will not be symmetric, but asymmetric. Instead, many jobs will be lost. The job creation will be additionally undermined, at least during first couple of years, by the necessity of import of technologies used in obtaining energy from renewable sources, due to insufficient funding of research in this area in Poland. Export of these technologies is also unlikely, as Polish technological progress is not leading when compared to other European countries.



Source: author's study

Fig. 2. The EU low emission policy and employment changes

Aside from the aforementioned, rather detrimental, changes on Polish job market, there will also be positive effects of the climate policy implementation, although it should be admitted, that these are rather poorly justified forecasts. According to the European Commission, the increased investment expenditures will result in employment increase in individual EU member states. On the one hand, increased effectiveness and innovations should lower the unit labor costs, and in the long term lead to employment growth. On the other hand, the short term employment reduction, caused by the consequences of introduction of the Emissions Trading System is estimated to be only 0.3% compared to the year 2005 [Communication from the Commission... 2010]. Moreover, new job offers should emerge in the sectors related to widely understood renewable energy.

4. Conclusions

The changes related to the EU climate policy will appear both on the level of individual EU member states' economies and in selected sectors of these economies. Moreover the consequences of this policy will probably be visible outside the EU, in many regions worldwide. The climate policy carried out both globally and in the EU will have an increasing impact on the functioning of economy in individual countries.

The main strategic objective of the EU decision makers, related to creation of low emission economy, is increase of employment, efficiency and competitiveness of Europe. In my opinion, the results of this policy will have a visible impact on national job markets. Implementation of the climate policy in the EU member states will require a kind of "structural transformation", based on using new, low emission technologies and innovations and a new employment structure.

Summing up, it should be stressed, that the results of the implementation of the EU climate policy and assumption of reducing the emissions by 80% by the year 2025 will be followed by huge social and economic costs for Poland, in spite of unquestionable and important benefits. In my opinion, the net outcome of these costs and benefits is negative, which means that in case of Polish economy the climate policy is conditioned by high costs and risk. The efficiency calculus of this policy in Poland should take into account the following aspects:

- the assumption, that the climate policy will increase competitiveness of Polish economy may be missed, as the forecasts for the GDP growth by the year 2020 are not very optimistic; low economic growth can be a strong barrier for supporting the low emission investments, which in turn can petrify the traditional energy sources and the related sectors of economy,
- the next threat is unemployment growth, especially in sectors sensitive to carbon leakage [Żmijewski 2011], caused by industry emigration to countries not covered by the European limitations and a decrease of their significance in Polish economy that follows; such opinion results from the fact, that in spite of the attempts to increase employment in sector III in Poland, the economy is still based on sector II; also, the effects of carbon leakage should not be exaggerated, as according to many accepted research studies [World Bank 2011, Bukowski and Kowal 2010], the accomplishment of emission targets in Polish economy may result unemployment increase by 1 to 2 percentage points, which in turn may result from lower employment in the branches, threatened by carbon leakage, by about 10 to 15%; it is also worth remembering that implementation of new climate policy in the EU will not help our environment, as the use of coal and lignite worldwide is expected to double; also, the forecasts of the European Commission regarding the greenhouse gases emissions for the year 2020 are not completely convincing, as EU 27 expects to reduce them by 20 to 30%, while other countries, such as USA estimate a reduction by 3 to 5%, Canada and Australia even expect an increase by 3 to 15% [Communication from the Commission... 2010]; therefore, it is worth stressing, that fighting climate change requires all the countries worldwide to engage, not just the EU,

- introduction of new energy sources – based on low emission technologies – will be related to huge implementation costs; stopping to use of domestic raw materials and becoming dependent on other, may lead to loss of industrial competitiveness of many European countries; it may have an impact on electricity prices, thus lowering the competitiveness of domestic economies and leading to pauperization of societies,
- big doubts emerge, when it comes to the impact of climate policy on job markets, as there is no certainty whether new vacancies in the low emission technology sector will compensate for the losses caused by the job losses in the existing industry and plants dependent on traditional energy sources; the changes in the industry and technology have a significant impact on production processes, employee relations, job market as well as demand for new competencies and creation of new professions; it is worth to ask an open question: will the new technologies and products, related to the environmental policies compensate for the decline in exports of products of industrial branches, based on traditional energy sources?
- the positive effects of the climate policy implementation in Poland will depend on creating a proper institutional environment, which on the one hand would support environmental actions, but on the other hand will slow down the radical and violent changes in the existing structure of Polish economy; their purpose should especially involve enhancement of the role of education and knowledge transfer from research centers to enterprises, development of research infrastructure, improvement of the intellectual property protection system, innovational activity, changes in awareness and environmental activity of the society, creating legal and financial instruments contributing to the change of traditional economy model to low emission economy model.

Summing up, it should be stated, that the current propositions of the European Commission in terms of long term climate and energy policy, which on the one hand do not take into account the characteristics of individual member states, treating the EU as a uniform system, and on the other hand do not include any mechanisms providing verification of actions in the aspect of achieving a positive results for climate protection in global scale, will have a negative impact on Polish economy. It should be also stated that the structural transformations of Polish economy towards the low emission model are inevitable, as since the beginning of transformations of the socio-political system this is the path it follows as a part of widely understood sustainable development. However, it is important for the effects of this climate policy not to create any real threats for Polish economy. Instead, they should be used for creation of new competitive opportunities and advantages, as well as increasing the effectiveness of management and work efficiency. In consequence, it should be expected, that due to Polish exposition to the risk of the macro-economic climate policy being higher than in Western Europe, the way of its implementation is very important for the success of this process in our country Long term balance of the climate policy will depend most of all on its impact on the competitiveness of economy, especially on advantage of the opportunities of increasing the efficiency of resource usage and maintaining the competitive production prices. The short term balance depends on the scale of investment program and the way of its funding. The declared objective

of the EU climate policy is a positive influence on the economic development and job market in all of the member states. Therefore, accomplishment of this objective will not be possible without taking into account the economic characteristics of these countries in the cost and benefit division, related to the implementation of the low emission policy. This applies especially to Poland, whose economy and indirectly the labour market are dependent on traditional energy sources.

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