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FROM COAL TO RENEWABLE ENERGY– FINANCIAL IMPLICATIONS FOR MUNICIPALITIES IN POLAND

ABSTRACT

In Central and Eastern European countries, coal-based energy still forms the foundation of energy security. Non-organic sources are very slowly being replaced by renewable energy sources (RES). Basing a country's economy on energy that works in harmony with ecological principles is a long-term process. Due to the necessity of satisfying the needs of the present generations in a way that will not reduce the chances of future generations to live comfortably, it is necessary to take into account the impact of the effects of energy production on the environment. Renewable energy is beneficial not only for the environment of a given country, but also for the entire region. Poland's long and difficult path from coal-based to low-emission power generation has had many effects, primarily environmental, social and financial. The study analyses the often neglected issue of the impact of shifting from coal-based to renewable energy on the functioning of individuals, society and public law associations, including municipalities. The analysis of the issue from the communes' perspective is important and interesting as the commune can act in many roles in the field of RES—as a “consumer” of energy, as an energy regulator, as an investor, as a producer and as an organizer.

KEYWORDS: *coal power, renewable energy, environment protection, Poland, municipalities, finance*

INTRODUCTION

The development of renewable energy sources (RES) and gradual elimination of energy obtained from sources that are environmentally harmful, especially those based on coal, does not affect only the functioning of individuals and societies, but also public law associations, including communes. Poland's difficult and long route from coal-based to low-carbon energy generates numerous environmental, social, and financial effects.

The aim of the study is to analyse the financial effects that concern communes, and which are related to the gradual reduction of coal mining, reduction of energy production by coal-fired power stations, and development of renewable energy. The analysis of the issue from the perspective of the communes is important and interesting because the commune can play many roles on the RES level—as an energy 'consumer', an energy regulator, an investor, a producer, and as an organiser.

THE ROLE OF THE COMMUNE IN THE DEVELOPMENT OF RES

The issue of renewable energy sources at the local level is not new—wind, water and solar energy have 'always' been used in rural communes. Years ago, the rural landscape was associated with windmills or water mills (Rożałowska, 2013, p. 65).

The issues of the broadly understood energy sector in the context of the activity of the commune are regulated in a very general manner in Article 7(1) (3) of the Act on Commune Self-Government of 8 March 1990 (consolidated text: Journal of Laws of 2019 item 506) – the provision shows that the tasks of the commune include satisfying the collective needs of the community, and in particular the issues related to electricity supply. The literature correctly points out that "the scope of self-government authorities' activities in the field of environmental protection has grown gradually, as the real threat coming primarily from human activity has been spreading. The process of increasing the role of self-government authorities in ensuring environmental protection

has depended to a large extent on the strengthening of their position and increasing their professionalism. The entrusting of protective tasks to self-government communities has also been a consequence of the central authorities becoming aware of the necessity to oppose the processes that destroy natural elements” (Barczak, 2015, pp. 36-37).

The normative development of this task is contained in the Act of 10 April 1997–Energy Law (consolidated text: Journal of Laws of 2019 item 755). Article 18 (1) shows that the tasks of the commune in the field of electricity supply include:

1. planning and organization of electricity supply in the area of the commune,
2. planning and organization of activities aimed at energy efficiency and promotion of solutions to reduce energy consumption in the area of the commune,
3. assessment of the potential for the generation of electricity in high-efficiency cogeneration and energy-efficient heating or cooling systems in the area of the commune.

In carrying out these tasks, the commune takes into account the local spatial development plan (and in the absence of such a plan–the directions of the commune’s development included in the study of conditions and directions of the commune’s spatial development) and an appropriate air protection programme adopted under Article 91 of the Act of 27 April 2001–Environmental Protection Law (consolidated text: Journal of Laws of 2018, item 799, as amended).

Pursuant to Article 19 (1) of the Energy Law Act, the head of the commune (mayor, city president) prepares a draft of assumptions for the electricity supply plan. It is drawn up for the municipality area for a period of at least 15 years and is updated every 3 years. The draft should, among other things, specify the assessment of the current state and anticipated changes in demand for electricity, projects aimed at energy efficiency, and the possibilities of using the existing surpluses and local energy resources, taking into account the electricity generated in the installations of the renewable energy source.

The literature indicates that the commune is present in several roles at the same time in the energy market and in the RES sphere: as an energy user,

as a local energy regulator, as an investor, energy producer, and as an entity responsible for planning and lighting public places and roads, which makes the commune's situation extremely complicated. Therefore, the commune's activity can be analysed on the level of implementing its statutory tasks, on the level of its independent activity in the energy sphere and on the level of cooperating in partnership with private entities (Szyrski, 2017, pp. 81-82).

In the context of local communities, the idea of distributed energy should be analysed in the first place. The notion of 'distributed energy' has no normative definition, but it appears systematically in strategic programming documents of public administration bodies and scientific studies. This notion can be understood as a very wide range of small scale energy technologies for decentralised energy production for local use. The aim of distributed energy is mainly to diversify energy sources. In order for the idea of distributed energy to be effectively implemented with the participation of the commune–statutory regulations are necessary (Szyrski, 2017, pp. 82-86).

The literature rightly emphasises that the commune's tasks in the energy sphere fall within the definition of public utility tasks. "One cannot agree with the thesis that the choice of innovative forms (in this case, new technologies related to RES) could in any way influence the statutory crossing of the boundaries of municipal economy or the sphere of public utility. After all, the final effect of such a choice is still the ongoing and uninterrupted satisfaction of the population's needs" (Szyrski, 2017, p. 88).

The development of RES is closely linked to environmental issues. RES has a Janus-faced approach in this respect—on the one hand it is supposed to contribute to environmental protection, on the other, it interferes with the environment. It can be assumed that society should participate in making decisions on the development of RES, which is connected with the activity of the commune and specific rights of local community members resulting from the Act on Municipal Self-Government, the Act of 15 September 2000 on the Local Referendum (consolidated text: Journal of Laws of 2019 item 741), the Act of 3 October 2008 on the provision of information on the environment and its protection, public participation in environmental protection and environmental impact assessments (consolidated text: Journal of Laws of

2018, item 2081, as amended), as well as the Act of 27 March 2003 on spatial planning and development (Szyrski, 2017, p. 105).

It is worth stressing that according to Article 3 (1) of the Act on spatial planning and development, shaping and conducting spatial policy in the area of the commune, including the adoption of a study on the conditions and directions of spatial development of the commune and local spatial development plans, with the exception of internal sea waters, the territorial sea and the exclusive economic zone, as well as closed areas, are the commune's own tasks. And it is the local spatial development plans that are referred to in the Act of 20 May 2016 on investments in the field of wind power plants, which act defines the conditions and procedures for the location and construction of wind power plants and the conditions for the location of wind power plants in the vicinity of existing or planned residential buildings. Local spatial development plans, created by communes, have a direct impact on wind power plants, as according to Article 3 of this Act, the location of a wind power plant is based solely on the local spatial development plan.

It should be stressed that in the Act of 20 February 2015 on Renewable Energy Sources, the role of local government units is marginal, while the leading role is played by government administration. This is all the more strange because “the implementation of renewable energy sources is to take place at the level of local government” (Szyrski, 2017, p. 153).

COAL ENERGY AND TAX REVENUE OF THE COMMUNE

One of the elements of the autonomy of local government units is their financial autonomy, which encompasses financial and taxation powers (Bucholski, 2013, p. 1014). The former enables the structure of the budget to be shaped both on the revenue and expenditure side, while the latter results from Article 168 of the Constitution of the Republic of Poland of 2 April 1997 (consolidated text: Journal of Laws of 1997, No. 78, item 483 as amended), and authorises local government units to determine the amount of local taxes and charges within the scope specified in the Act. In connection with coal-fired power generation, the commune may derive revenue in particular from a share in

the corporate income tax, property tax and mining fee, but also from a share in the personal income tax in connection with the employment of employees. The commune's budget does not receive revenue from the value added tax in connection with the turnover of mining companies.

As regards the tax revenues of a commune, attention should be paid in particular to the content of the Act on the Revenue of Local Government Units of 13 November 2003 (consolidated text: Journal of Laws of 2018, item 1530, as amended, hereinafter referred to as: 'ARLGU'). Under Article 3(1) of the above-mentioned Act, the revenues of local government units are their own revenues, general subsidy and designated subsidies from the state budget. Moreover, within the meaning of the Act, the revenue of local government units also includes shares in the income from personal income tax and corporate income tax. It is worth noting that the revenues of local government units may include non-repayable funds from foreign sources, funds from the European Union budget, or other funds specified in separate regulations. The taxes and fees collected by tax offices for the benefit of local government units include personal income tax paid in the form of a tax card, tax on civil law transactions, inheritance and donation tax, and stamp duty (Cellary, 2014). At the same time, it is sometimes indicated that the resources from EU funds intended to finance particular programmes should be transferred to the budget of the local government unit, as the budgetary units of local government units, when implementing these programmes in practice, operate on the basis of a financing plan that is part of the local government unit budget (Resolution of the Regional Chamber of Auditors in Katowice of 18 October 2005, 115/XXVII/2005, OwSS 2/2006, item 52, p. 103).

Under the provisions of Article 4(1) of ARLGU, the sources of the commune's own revenue particularly include tax revenues, i.e. property tax, agricultural tax, forestry tax, means of transport tax, personal income tax, tax card tax, inheritance and donations tax, civil law transactions tax and revenues from additional tax obligation related to tax avoidance. Moreover, the commune's own revenue also includes revenue from charges, i.e.: stamp duty, market dues, local fees, resort fees and dog ownership charges, advertisement fees, mining fees (in the part specified in the Act of 9 June 2011–Geological and mining law, consolidated text: Journal of Laws of 2017, item 2126, as amended) and

other revenue of the commune, paid under separate regulations. What is more, in this respect, the legislator has also indicated revenue obtained by the commune's budgetary units and payments from the commune's budgetary establishments, income from municipal assets, inheritances, bequests and donations to the commune, income from fines and penalties specified in separate regulations, and others.

Moreover, the share in the income from the personal income tax from taxpayers residing in the commune is 39.34% (subject to Article 89 of the ARLGU) and the share in the income from the corporate income tax from taxpayers established in the commune is 6.71%.

For the development of self-governance in the local communities and the strengthening of their independence, properly defined rules for financing local government units are of particular importance (See. Ruśkowski, 2001, pp. 9-19). Therefore, when referring to the issue of distributing income between the state and local government, one should also point to the international agreement ratified by the Republic of Poland, i.e. the European Charter of Local Self-Government drawn up in Strasbourg on 15 October 1985 (Journal of Laws of 1994. No. 124, item. 607, adopted by the Polish Republic on March 1, 1994.; hereinafter: 'ECLSG', 'Charter'). Under Article 9(2) of ECLSG, the amount of financial resources of local communities should be adjusted to the extent of the powers conferred on them by the Constitution or by law. Moreover, in Article 9 of the Charter, the Member States of the Council of Europe have singled out standards of financing for local communities (Kotulski, 2004, pp. 123-151). Referring to these international standards, it is indicated that Polish regulations concerning the financial management of communes meet them to the greatest extent (Cf. Miemiec, 1997, p. 56 et seq.).

Moving on to a detailed analysis of coal-fired power generation from the perspective of the commune's tax revenues, one must indicate the commune's share in the revenues from property tax. This tax is regulated in particular by the provisions of the Act of 12 January 1991 on Local Taxes and Fees. Property tax is levied on real estate or built structures, i.e. land, buildings or parts thereof, and structures or parts thereof connected with running economic activity. As indicated by the Supreme Administrative Court in its judgment of 3 February 2006 (II FSK 656/05, LEX no. 193322) non-building structures located in

the mining pit are subject to property tax. Moreover, when determining the subject of property tax, the provisions of the Construction Law are of limited application. In fact, they boil down only to the definition of non-building structures and construction facilities related to a built structure, contained in the provisions of Article 3(3) and (9) of the Construction Law Act.

Property tax belongs to the category of local taxes, the proceeds of which constitute the exclusive revenue of the local government, i.e. its own revenue. Commune councils may shape property tax rates and introduce tax benefits other than those directly mentioned in the Act. This is possible through the taxation powers granted to communes, but obviously within statutory limits. It is the budgetary policy of a particular self-government that indicates the manner of exercising the above-mentioned powers by a given authority of the commune.

The mining fee should also be mentioned, as it is the basic financial and legal instrument related to mining activities, introduced to the Polish legal system by the Act of 9 March 1991 amending the Mining Law. Under Article 134(1) of the Act of 9 June 2011–Geological and Mining Law (consolidated text: Journal of Laws of 2019, item 868, as amended, hereinafter referred to as: GML), an entrepreneur who has obtained a concession to extract minerals from a deposit, and in the case of a concession to explore and recognize hydrocarbon deposits and to extract hydrocarbons from a deposit–has obtained an investment decision, shall pay a mining fee determined as the product of its rate and the quantity of minerals extracted from recoverable and non-recoverable deposits, in the settlement period. In accordance with the rightful position of the Supreme Administrative Court contained in the judgment of 7 October 2014 (II GSK 1216/13, LEX no. 1591975), the economic interest of the commune in the form of obtaining financial income from the mining fee should be treated as a factual interest and not a legal one. Moreover, the above mentioned fact is confirmed by the existing interest of the commune, which is entitled to receive part of the proceeds from the mining fee. The commune is entitled to execute the mining fee only after the amount of the mining fee has been established.

Moreover, the mining fee, despite its name, is in fact a special type of tax since it does not have an element of remuneration, i.e. mutual consideration

for the fee paid (Borodo, 2004, pp. 22-23). Sometimes the psychological dimension of avoiding the notion of tax and replacing it with the notion of fees is rightly indicated (See Gliniecka, 2009, p. 167). Therefore, the question of the possible advantages that the legislator will achieve by giving preference to the concept of a fee for 'structured taxes' and, at the same time, the negative effects that this may have as a consequence, remains to be analysed (Borszowski, 2016, p. 19).

It is indicated that the revenue from the share of this fee in the proceeds may constitute a significant source of income for the communes where the minerals are mined (including coal) (Borodo, 2004, p. 24). In accordance with Article 141 of GML, 60% of the revenue from the fees referred to in Section VII of the Act constitutes the revenue of the commune where the activity is carried out and 40% the revenue of the National Fund for Environmental Protection and Water Management (hereinafter: NFEPWM), and 60% of the revenue from the fees referred to in the above-mentioned section with regard to hydrocarbons, constitutes the revenue of the commune, 15% the revenue of the district, 15% the revenue of the voivodeship where the activity is carried out, and 10% the revenue of the NFEPWM. If the activity is carried out in the territory of more than one commune, one district, or one voivodeship, the fees constitute their revenue in proportion to the size of the area covered by the activity or the amount of extracted mineral, the amount of substances, waste or carbon dioxide introduced into the rock mass. What is more, the revenue from the fees for activities carried out within the maritime areas of the Republic of Poland constitutes the revenue of the NFEPWM in its entirety.

In view of the above, it should be pointed out that mining is an industrial activity which is economically lucrative, but, on the other hand, has a negative impact on the environment. Basically, from the perspective of the commune's revenue, coal-fired power industry is a source of additional tax and fee income, some or all of which goes to the commune budget. These inflows are included in the commune's own revenues and consist of:

1. the mining fee for the extraction of coal from a deposit paid by a mining company–60% is paid to the commune budget, and if the extraction is carried out in the territory of more than one commune, the fees constitute their revenue in proportion to the size of the area covered by the

- activity or the amount of extracted mineral, the amount of substances, waste or carbon dioxide introduced into the rock mass,
2. property tax related to the business activity, for which the whole amount is paid to the commune budget,
 3. a share in the corporate income tax—from taxpayers of this tax who have their registered office in the commune, paid by the mining company and external companies that cooperate with the mine, with 6,71 % of the revenue being allocated to the commune budget, and if the taxpayer of corporate income tax is in the possession of a plant (branch) located in the territory of a local government unit other than its registered office, a part of the revenue from the share in the income from this tax is allocated to the budget of the local government unit in the territory of which the plant (branch) is located, in proportion to the number of persons employed in it under an employment contract (subject to Article 10(2) and (2a) of ARLGU),
 4. the share of personal income tax paid by employees of a legal entity which is the taxpayer, i.e. a mining company and external companies which cooperate with the mine, with the amount of the share in the revenue from personal income tax, from the payers of this tax residing in the territory of the commune being 39.34%, reduced by a coefficient which is determined by statute and calculated annually under Article 89 of ARLGU.

As correctly indicated by L. Pazderski and J. Badura, in practice the issue of PIT and CIT income may be complicated (Pazderski, Badura, 2017, pp. 65-66). This is the case, for example, if the head office of the mining company or its branch is located in a commune other than the one in which the extraction is carried out. The employees do not usually live in rural communes where the mining takes place, but rather in nearby towns (Pazderski, Badura, 2017, pp. 65-66).

Table 1.

Selected total revenue of communes by source of their origin.

Details	in thousands of PLN	
	execution 2017	execution 2018
Total revenue, of which:	111,189,285	121,425,597
– own revenue, of which:	48,076,250	52,530,327
– corporate income tax	861,749	956,727
– personal income tax	18,296,709	20,873,384
– property tax	13,372,486	13,800,359
– proceeds from the mining fee	362,377	379,238

Source: Authors on the basis of the report on the implementation of the state budget for the period from 1 January 2018 to 31 December 2018.

Of all the selected own revenues of the commune that have been analysed, the share in personal income tax and property tax is undoubtedly the most important. Moreover, an increase has been observed in own revenues of the communes earned in 2018 in relation to the revenues earned in 2017.

Table 2.

The share in revenue from personal income tax in years 2017 and 2018.

Details	2017	2018
Communes	37.89%	37.98%
Districts	10.25%	10.25%
Voivodeships	1.60%	1.60%
TOTAL	49.74%	49.83%

Source: Authors on the basis of the report on the implementation of the state budget for the period from 1 January 2018 to 31 December 2018, p. 5.

As can be seen in Table no. 2, the amount of the commune's share in the income from personal income tax (PIT) set for 2018 was 0.09 % higher than the share set for 2017.

Table 3.

The share in revenue from corporate income tax (CIT) in years 2017 and 2018.

Details	2017	2018
Communes	6.71%	6.71%
Districts	1.40%	1.40%
Voivodeships	14.75%	14.75%
TOTAL	22.86%	22.86%

Source: Authors on the basis of the report on the implementation of the state budget for the period from 1 January 2018 to 31 December 2018, p. 6.

As Tables 1, 2, and 3 show, the important sources of own revenue of local government units are shares in the income from personal income tax (PIT) and corporate income tax (CIT). There is no doubt that coal-fired power generation has a major impact on tax revenues in communes.

Moreover, as indicated in the annual 'Boom and Bust' report, which summarizes the situation in the coal power industry, the number of coal-fired power plants under construction in the world is decreasing for the third year in a row (Shearer, Mathew-Shah, Myllyvirta, Yu, Nace, 2019). As a result of commencing the construction of Ostrołęka C, Poland has been among only eleven countries in the world that began implementing coal projects in 2018 (Shearer, Mathew-Shah, Myllyvirta, Yu, Nace, 2019). It is clear from the above-mentioned report that emissions from currently operating coal-fired power plants, with standard levels and the operating life, are too high to keep global warming within 1.5°C or even 2°C (Shearer, Mathew-Shah, Myllyvirta, Yu, Nace, 2019). This means that investors should slowly move away from investing in coal and invest more in solutions that tackle the climate crisis. However, it should be stressed that a well-functioning energy sector is a fundamental element of the country's economic development as well as sustainability, prosperity, and energy security (Skoczkowski, Bielecki, Węglarz, Włodarczak, Gutowski, 2018). For this reason, its development must be preceded by a meticulous plan.

RES AND THE TAX REVENUES OF THE COMMUNE

The renewable energy sources sector does not only contribute to the creation of new jobs, but also involves additional tax revenues, i.e. corporate income tax or property tax. RES also have an impact on the development of the local energy infrastructure and the local road network. What is more, the development of wind energy has a significant impact on the Polish economy both at the national and regional level (Report 2019, Cooperation of conventional coal sources and large-scale RES).

From the perspective of the near future, the greatest potential for the stimulation of the Polish economy is often attributed to offshore wind energy. This is partly due to the good location of RES installations, i.e. location at sea. Moreover, it is not infrequent that a relatively large share of the national component in power plant construction costs is indicated in this respect, as well as the potential of offshore power plants, which has not been used in Poland so far. On the other hand, at times in practice, stagnation in wind energy development can be observed, despite the existence of very good environmental conditions due to unfavourable fiscal policy (See Pest, Lewandowski, 2017, pp. 54-59).

Standardising the rules on property tax in a correct, clear and precise manner is not only important for taxpayers, and has a real impact on burdening on entrepreneurs, but it also affects the revenues of communes (the decision of the Supreme Administrative Court of 22 October 2018, II FSK 2983/17, LEX No. 2604136). However, in practice, many doubts have arisen in connection with the property tax.

As already indicated, pursuant to Article 2(1) of the Local Tax and Fees Act of 12 January 1991 (consolidated text: Journal of Laws of 2019, item 1170 as amended, hereinafter LTFA), the following real property or built structures are subject to property tax: land, buildings or parts thereof and non-building structures or parts thereof connected with carrying out economic activity. In view of the above, it would seem that the qualification of RES installations will not cause any problems in the case of applying the provision in practice, but we could not be more wrong on this (See Lewandowski, 2017, pp. 67-76).

The aforementioned Act of 20 May 2016 on investments in wind power plants entered into force on 16 July 2016. It should be noted that until the end of 2016 only structural parts, i.e. the foundation and the mast, were subject to property tax. However, as of 1 January 2017, some communes deemed it appropriate to start charging tax on the entire infrastructure. Some legitimate opinions have appeared that this Act could lead to consequences on the grounds of property tax that were not anticipated by the legislator, as well as changes in the definition of non-building structures contained in the Act of 7 July 1994–Construction Law, resulting in a significant extension of the material scope of taxation of non-building structures with real property tax.

Having regard to the above, the legislator has again amended the provisions, as a consequence of which only the mast and the foundation of the windmill are subject to taxation again from 2018 onwards, with a retroactive effect. However, this did not affect the scope of taxation for 2017. On 22 October 2018, the Supreme Administrative Court, composed of seven judges, took a position on this case (file no. II FSK 2983/17). The Supreme Administrative Court pointed out the shortcomings of the legislative process related to the implementation of the provisions of the act on investments in wind power plants, resulting in an increase in the taxation of wind power plants with property tax in 2017, which, in the Court's opinion, do not affect the interpretation of the applicable provisions of substantive law. To sum up, the Supreme Administrative Court concluded that in the legal status in force from 1 January to 31 December 2017, the local governments should have been right.

The Supreme Administrative Court in its judgment of 18 December 2018 (II FSK 1275/18, LEX no. 2627301) with respect to property tax on photovoltaic farms indicated that the construction of the device, i.e. panels which are elements of semiconductor silicon boards fixed to the ground by means of a special system of anchors, piling, or concrete slabs, and the function they perform (conversion of solar energy into electricity), means that only their construction parts should be considered as non-building structures and, as a result, should be subject to property tax to that extent.

Table 4.

The presence of wind farms for economic reasons.

Benefits	Concerns
additional revenue for the commune and its residents	value loss of lands located near the wind farms
presence of a long-term investor in the commune	–
employing local employees, engaging local entrepreneurs	–
investor's provisions to the local community	–

Source: Authors on the basis of "Energetyka Wiatrowa w Polsce" report (Fifth edition of the report „Energetyka Wiatrowa w Polsce”, p. 59)

As can be seen from Table 4, which contains the opinions of representatives of the communes where the wind farms are located and of the neighbouring communes, more economic benefits than concerns about the presence of wind farms are observed.

FISCAL AND NON-FISCAL BENEFITS FOR COMMUNES WITH RES

RES issues in the context of a commune can be considered on several levels, one of which is the fiscal level. Coal energy is a source of significant tax revenues for those communes where mines or power plants are located. The income from property tax, mining fee, and shares in personal income tax and corporate income tax of such 'privileged' communes in Poland is extremely high. The richest commune in Poland has for many years been Kleszczów, whose wealth is due to the Bełchatów Coal Mine, and one of the largest lignite power plants in Europe—the Bełchatów Power Plant. The tax income ratio of this commune per capita is more than fifteen times higher than the tax income of all communes per capita in Poland.

Mines and power plants are a source of significant tax revenues not only for the communes in which they are located. They also have a positive impact on the finances of neighbouring communes whose inhabitants are employees of these mines and power plants, as income from the participation in the personal income tax is received by the commune where the personal income tax payer resides.

Liquidation of coal-fired power generation will mean a radical drop in income for communes where mines and power plants are located. On the other hand, the RES also generate and will generate income for communes, but certainly at a much lower level. There will be no 'automatic' replacement of tax revenues related to coal energy with tax revenues related to RES in relation to specific municipalities. For example, it can be pointed out that one of the two areas with the most favourable conditions for wind energy development is the coastal zone, where communes with no mines or power plants are located.

The infrastructure related to coal energy generates tax revenues for a relatively narrow group of communes in Poland. Meanwhile, the RES are more dispersed and taxes will benefit a much larger percentage of communes.

The liquidation of infrastructure related to coal energy in the area of a given commune may result in increased income of neighbouring communes from climate or landscape charges. Communes that have towns with favourable landscape values often cannot introduce a local fee in their territory, as the neighbouring commune effectively pollutes the climate. The functioning of RES will certainly have much less negative impact on the environment.

The elimination of 'polluters' will certainly result in the development of tourism in such a commune, as well as in the neighbouring communes. Currently, even large tourist attractions may deter people if visiting them involves inhaling highly polluted air. And the development of tourism undoubtedly contributes to the increase in the communes' income.

CONCLUSION

The development of renewable energy sources has a huge impact on the functioning of communes. It applies both to the fiscal and non-fiscal levels. While from the perspective of residents, community, and the environment, the elimination of coal-fired power generation is beneficial, the situation is a great deal different from the perspective of the commune's income. Some of the communes in Poland gain considerable revenues from coal-based power engineering, the reduction (or liquidation) of which will directly translate into reduced revenues. Obviously, thanks to the development of RES, some communes will increase their revenues related to the existence and operations of RES, however, it will not necessarily be those communes that will lose revenues related to the operation of coal-based power engineering.

Assuming that there is no turning back from low-emission power engineering, it is necessary to amend the legal acts related to the financing of local government units in order to adjust the allocation of public funds between the state and local government units in such a way that some municipalities can be partially compensated for the loss of revenues related to coal power engineering.

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