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A ROLE OF LOCAL GOVERNMENT IN SHAPING THE DISTRICT HEATING SECTOR

Abstract

Traditionally, all aspects related to energy sector regulation in Poland, including district heating, are connected with state regulatory authority, i.e. the President of the Energy Regulatory Office. The aim of this article is to present a significant and often underestimated role of local government in creating and shaping local district heating markets. This micro-level regulation is all the more important taking into consideration specific features of district heating that differentiate it from other energy sectors.

KEYWORDS

district heating sector, monopoly, local character, regulation, municipal government

SŁOWA KLUCZOWE

sektor ciepłowniczy, monopol, lokalny charakter, regulacja, samorząd gminny

1. INTRODUCTION

The district heating sector is one of the elements of the national energy system consisting of five energy subsystems: electricity, gas, heating, solid fuel subsystem, and liquid fuel subsystem. The criterion for distinguishing the subsystems is the nature of the energy carriers they supply to end users (Jeżowski, 2008, p. 195, Niedziółka, 2018, p. 114).¹

Broadly understood district heating (DH) secures the needs of consumers and industrial customers (Wrzalik, Kucęba, 2019, p. 27). However, it must be noted that DH differs from other energy subsectors significantly. These differences contribute to the fact that in the case of DH sector, it is not always possible to adopt solutions introduced in other fields from energy sectors. In the case of district heating, the heat delivered to consumers (by means of a carrier – hot water or steam) is transmitted through a separate infrastructure – the network (Niedziółka, 2018, p. 121). The basic and most important difference is that, unlike electricity and gas markets, DH is not a single (and national) market but it consists of many local markets. This, among others, implies that, unlike the electricity and gas sectors, system heat suppliers are not mutual competitors as district heating systems, as a rule, are designed not as interconnected but as isolated units (Wissner, 2014, p. 63).

The situation of the district heating sector is far more complicated by the fact that, in addition to its specific characteristics, the regulatory environment is created as multidimensional, which is manifested by the fact that, in addition to a special regulator dedicated to the execution of tasks in the area of district heating, a number of other administrative bodies hold competences in this area.

In this regard, special attention should be paid to the specific tasks assigned to municipal governments, which perform statutory obligations and thus should be considered as authorities playing a key role in the functioning of local heat markets.

2. SPECIFIC FEATURES OF THE DISTRICT HEATING SECTOR

The era of liberalization of energy sectors, which began in the 1980s, was a manifestation of the general trend of liberalization of the economy. The process led to positive global changes, at the same time it resulted in modest efficiency (productivity) gains in these sectors and – as in some countries – hardly visi-

¹ The literature also shows a market structure extended by the mining sector. See e.g. Zamasz, 2008 p. 12.

ble direct benefits for households. However, it is pointed out that liberalization has significantly improved the management of monopolistic tools, prospects for competition and innovation, as well as the quality of instruments to control emissions, e.g. by the emergence of a mechanism to trade these emissions (Pollitt, 2012, p. 135). The general liberalization trend, however, did not cover the district heating sector, which due to having specific features could not be subjected to the processes envisaged, among others, for the electricity or gas sector.² These specific features characterizing the DH sector (local heat markets) include network (infrastructural) character, local character of the monopolistic structure of the DH markets, as well as the obligation to achieve public goals.

2.1. DH AS AN INFRASTRUCTURE NETWORK SECTOR

The operation of the district heating sector is inextricably associated with the need for a specific infrastructure network. Infrastructure networks are complex technical systems which, for example, enable energy carriers (heat) to be moved (transported) over long distances. At the same time, the infrastructure network consists not only of specific transmission lines but also of various types of technical equipment that enable the control of network operation and technical facilities. This complexity means that infrastructure networks can be defined as network sectors (Szydło, 2005, p. 54). The DH sector, built from various technical and organizational elements, is thus a typical infrastructure network, and the sector itself should be recognized as an infrastructure sector.

According to the Polish Energy Law,³ the term ‘grids’ is understood as interconnected and cooperating installations, used for the transmission or distribution of fuels or energy, belonging to energy enterprises.⁴ A similar definition – with reference to district heating – can be found in the ordinance on detailed principles of shaping and calculating tariffs and settlements for heat supply, according to which a district heating grid is an interconnected device or installation used to transport and distribute heat from heat sources to heat substations.⁵ The district heating network together with the equipment or installations cooperating with it for the generation or consumption of heat form a district heating system.⁶ The network is a closed circuit, which is why heating networks powered from different or

² The strong differentiation of heat markets has also been influenced by the strong dependence on local conditions and historical past (Niedziółka, 2010, p. 85).

³ The Act of 10 April 1997 Energy Law (O.J. 2023, item 1762).

⁴ Art. 3 pt 11 of the Energy Law.

⁵ See: Para. 2 pt 15 of the ordinance of the Minister of Climate from 7 May 2020 on the detailed rules for the setting and calculating tariffs and billing for heat supply (O.J. 2020, item 718).

⁶ See Para. 2 pt 21 of the ordinance of the Minister of Economy from the 15th of January on the detailed conditions for the operation of district heating systems (O.J. 2007, item 92).

even the same sources are usually not connected.⁷ The chain of the entire process includes activities from heat generation to its delivery to the end user. The literature on the subject divides networks according to their purpose into municipal, industrial, and mixed-use (Szkarsowski, Łatowski, 2012, p. 19).

What is crucial, the length of the network determines the extent of the local heat markets and also affects the so-called heat losses. In other words, the longer the network, the greater the losses of generated heat entering the network. Therefore, due to the high sensitivity of heat energy to transport (heat losses), district heating systems are as a rule only built in agglomerations with a sufficiently high concentration of customers, i.e. building density.⁸ The design of district heating networks depends on various factors, such as the terrain, distance from the point of collection, the needs of the customers, and the type of medium, while the final choice of the shape of the network also determines whether the designed network will be dedicated to existing or prospective customers (Nantka, 2012, p. 158).⁹ For these reasons, each DH network is characterised by certain differences and can be described as unique.

What is crucial for the development of local district heating markets in Poland is that the length of the DH network is being expanded. During the 20-year period of the monitoring of licensed district heating companies, the length of the network increased from 17,312.5 km in 2002 to 22,578.43 km in 2022.¹⁰

2.2. LOCAL CHARACTER OF THE DH MARKETS

As it was indicated above, in the case of the DH sector the extent of the network (its length) determines the local character of the DH markets. The specific nature of heat supply (network transmission) means that, unlike other energy markets (electricity or gas), there is no internal heat market on a national scale and individual heat supply systems are only local in nature (Szatybełko-Połom, 2005). This 'locality' (local character) is described as "occurring in a specific area, having

⁷ See for example, the decision of the President of the Office of Competition and Consumer Protection nr RKT- 40/2012 from 28 November 2012 and decision Nr RKT 39/2014 from 27 November 2014.

⁸ See the decision of the President of the Office of Competition and Consumer Protection nr RKT – 69/2006 from 28 September 2006.

⁹ In the case of network infrastructure, there is also a call for intensification of its use, resulting from the conditions associated with the implementation of network investments. As W. Dołęga points out, the intensification of network infrastructure consists, among other things, of the appropriate location of generation sources and consumers eliminating transmission congestion or the modernisation of existing power lines and substations increasing their transmission capacity. Although the remarks refer to the power sector, it can be assumed that they remain applicable also to the heat infrastructure (Dołęga, 2016).

¹⁰ District Heating Sector in Numbers – 2022. A Report of Polish Energy Office Authority, p. 7.

a character typical of a particular place”¹¹ For district heating, local extent means one or more localities (Ropuszyńska-Surma, Węglarz, 2012, p. 145). Therefore, the activity of district heating companies also has a local dimension, limited, on the one hand, by the distribution network and, on the other, by the lack of economic and technical possibilities for transporting heat over long distances. Thus, it should be concluded that the heat sector in Poland is a set of local heat markets. The local nature of the DH markets also means that the customer cannot choose the company supplying the energy carrier through the network, and the supplier has limited opportunities to attract new customers (Niedziółka, 2010, pp. 84-85).

The size of the local market, i.e. the length of the network and the number of customers supplied with heat, determines the volume of heat production and consequently, among other things, the need to apply to the President of the Energy Regulatory Office for an appropriate license (Szwedziak-Bork, 2016, p. 37). The geographical fragmentation of district heating companies also affects the diversity of their type and scope of activities, as well as their degree of involvement in the district heating activities (Niedziółka, 2010, pp. 87-88).

2.3. MONOPOLISTIC STRUCTURE OF THE DH MARKETS

Traditionally, the district heating sector has been considered to have the characteristics of a natural monopoly, as the parties, apart from the contract, are bound by a permanent (usually very capital-intensive) connection (Boroń *et al.*, 2010, p. 14). The district heating systems, therefore, remain in principle natural monopolies in both – heat generation and distribution.

A natural monopoly is described as a situation where one firm – which satisfies market demand – can produce a given good or bundle of goods at a lower cost than any combination of more firms (Borkowska, 2009, p. 153). A natural monopoly is, therefore, understood as a factual state that determines the conditions for the rational conduct of an economic activity, which makes it the exclusive property of one entity. In this case, the activity of another entity carrying out economic activity is unreasonable in the light of the criteria adopted, determining a certain rationality in the conduct of economic activity (Strzyczkowski, 2007, p. 237). Specific technical, economic, and legal conditions mean that energy markets are structured as oligopolies (usually duopolies) or monopolies. In both market forms, companies have an influence on the terms and conditions of transactions (Ropuszyńska-Surma, Węglarz, 2012, p. 148).¹²

¹¹ See: online Dictionary of the Polish Language (internetowy Słownik Języka Polskiego), available at: www.sjp.pl.

¹² The authors present an interesting analysis of the conduct of a monopoly – district heating company operating in the local heat market in the face of an attempt of market entrance by a new player (a second district heating company). Based on the game theory, more specifically a non-ze-

As pointed out in the literature, despite the over 30-year-long process of building a free market and implementing the ideas of liberalism and competition, a characteristic feature of the DH market remains the lack of freedom of choice for the producer and heat consumers since the monopolistic nature of the local markets significantly disturbs the chance of balancing the interests of producers and consumers of system heat (Niedziółka, 2010, p. 89).¹³

In the case of local heat markets, it is also pointed to the historical conditions and urbanization systems of Polish agglomerations that determine the monopolization of the heat market. It should be noted that the existence of a monopoly in the heat market is determined not only by the fact that the heat source is central for a given agglomeration, but also by whether the ultimate consumer (end user) has the possibility to access heat on market terms (Kardasz, 2009).

2.4. AN OBLIGATION TO PROVIDE PUBLIC SERVICES

In general, public services are defined as types of services that are characterised by three criteria. Firstly, such services are provided to the public and/or in the public interest. Secondly, the provision of such services is carried out in a regulated or standardised manner (sometimes only to some extent). Thirdly, the services are provided directly or indirectly by public sector organizations (Sauter, 2014).

At the level of EU regulation, public services are referred to as “services of general economic interest”. The concept of services of general economic interest is not defined in the EU law. The Commission has clarified in its Quality Framework that “SGEIs are economic activities which deliver outcomes in the overall public good that would not be supplied (or would be supplied under different conditions in terms of objective quality, safety, affordability, equal treatment or universal access) by the market without public intervention. A PSO is imposed on the provider by way of an entrustment and on the basis of a general interest criterion which ensures that the service is provided under conditions allowing it to fulfil its mission”.¹⁴ It is also underlined that the SGEI concept may apply to different

ro-sum game, the analysis was conducted according to the Cournot model, with the players’ strategies being the volume of production (See: Ropuszczyńska-Surma, Węglarz, 2012, pp. 146-156).

¹³ A different opinion regarding the qualification of district heating sector as a natural monopoly is presented by W. Lisewicz, who stresses that the heat market should be considered as competitive (See Lisewicz, W. , *Podobieństwa i różnice w regulacji działalności ciepłowniczej w Polsce i w Niemczech. Czy ciepłownictwo to monopol naturalny?*, PUG No. 9, 2007). A similar approach is presented by M. Wierzbński, stating that there are many indications that the district heating company cannot achieve a monopolist position on the local heat market due to the alternative methods of heating buildings. In consequence, the author postulates that this should result in considering gradual deregulation of the sector and complete abandonment of regulation of heat prices and transmission services. (Wierzbński, 2015, p. 291).

¹⁴ A Quality Framework for Services of General Interest in Europe COM(2011) 900 final of 20 December 2011.

situations and terms, depending on the Member States. For this reason, EU law does not create any obligation to designate formally a task or a service as being of general economic interest, except when such obligation is laid out in the Union legislation (e.g. universal service in the postal and telecommunication sectors).¹⁵

Although Polish energy regulations do not explicitly use the terms ‘public services’ or ‘services of general economic interest’, there is no question that the Energy Law imposes certain specific obligations on energy companies, in particular, those involved in the transmission and distribution of electricity, gas and heat (Szydło, 2005, p. 148). In this context, the provision of public services is a part of broader obligations related to the achievement of public goals mentioned, among others, in the Polish Energy Law.¹⁶ On this ground, the generation and supply of heat to customers can be classified as a service of general economic interest.

It should be also pointed out that in Polish legislation the category of public services or SGEI is the closest to the category of “the tasks of a public utility character” introduced to the Act of 8 March 1990 on the municipal government.¹⁷ Public utility includes own tasks of local government units aimed at the ongoing and uninterrupted satisfaction of the collective needs of the population through the provision of universally accessible services (Dudzik, 1998). The literature indicates that the provision of services of a public utility nature is attributed to services related to the supply of electricity. However, due to the role played by thermal energy (i.e. heat) in meeting the needs of households, this sector should also be considered as providing such services (Krzykowski, 2022, p. 221).

3. REGULATION AND REGULATION OF NETWORK SECTORS – GENERAL REMARKS

With regard to market mechanisms and structures, regulation can be defined as certain rules or individual actions that are taken by government bodies, either directly affecting the allocation mechanism in the market or directly influencing

¹⁵ Guide to the application of the European Union rules on state aid, public procurement and the internal market to services of general economic interest, and in particular to social services of general interest. Commission Staff Working Document. Brussels, 29 April 2013, SWD(2013) 53 final/2.

¹⁶ According to Article 1.2 of Polish Energy Law: The purpose of the Act is the creation of the conditions for sustainable development of the country, energy security, efficient and rational use of fuels and energy, development of competition, counteracting negative consequences of natural monopolies, consideration of natural environment protection requirements and obligations stemming from international agreements and balancing the interests of energy enterprises as well as fuel and energy customers.

¹⁷ Act of 8 March 1990 on the municipal government (O.J. of 2023, item 40).

the decisions of consumers (Spulber, 1989, p. 24). It is also pointed out that regulation comprises mostly rulemaking while others extend it to include rule monitoring and rule enforcement (Hood, Rothstein, and Baldwin, 2001).

Therefore, regulatory actions will include state intervention in the market, which without this intervention would be subject to free (and in this sense unlimited) play by the actors present in it. Interventionism (public intervention) thus means that the state influences the course of economic processes and activities (Kabza, 2014, p. 22), orienting the market economy towards the realisation of goals that would be unachievable using only the incentives arising from market mechanisms (Strzyczkowski, 2011). The aim of regulatory action is not to eliminate natural monopolies, as *de facto* it is to control the behaviour of the company operating the infrastructure network (Elżanowski, 2017, p. 42). The state plays a key role in counteracting the negative effects of monopolies by implementing and applying regulatory tools.¹⁸ The tools used as part of public intervention in the Polish district heating sector include, in particular: licensing of activities, heat price tariffs, and the obligation to ensure that all consumers and energy sales companies, on the basis of equal treatment, provide services for the transmission or distribution of gaseous fuels or energy (the so-called Third Party Access rule).

As pointed out in the literature, sector-specific regulation (sectoral regulation) should use certain unambiguous criteria, i.e.

- be based on clearly defined policy objectives in the sector,
- be limited to the minimum necessary to achieve the stated objectives,
- contribute to a level of legal stability in a dynamic environment,
- be technology-neutral, especially in view of the convergence of different sectors,
- respect the principle of proportionality, not going beyond what is necessary to achieve the objectives (Piątek, 2004, pp. 159-160).

It should be noted that in the case of regulation of the heating sector, these criteria do not seem to be respected. This is evident, among others, in relation to the assumption of a clear definition of sectoral policy objectives, where, in the case of the Polish energy system, contradictory political declarations are often made, e.g. regarding the transition of the economy away from fossil fuels and the use of renewable energy sources (Brauers, Oei, 2020). Similar comments can be made regarding the level of legal stability, which, with regard to the regulation of the district heating sector, does not correspond to the dynamics of change or does not adapt to a turbulent, changing environment. This leads to the fact that regulation of the district heating sector can be assessed as inconsistent and inadequate.

¹⁸ One of the first market regulation tools introduced by the Energy Law was the concession (Niedziółka, 2010, p.103).

4. COMPLEX REGULATORY FRAMEWORK OF THE DH SECTOR

The complicated nature of the district heating sector in Poland is also exacerbated by the fact that it is subject to the supervision of the regulatory authority and other bodies that directly or indirectly influence its functioning. What is more important, the authorities are positioned at different law-making levels, i.e. national, local, and European. Thus, in the case of the district heating sector, three levels of the regulatory environment affecting this sector can be distinguished.

At the national level, regulatory powers over district heating companies are exercised by statutorily empowered entities – public administration bodies and local government units. The authorities with competences in regulating the district heating sector include those with primary (key) influence on activities in the sector with the leading role of the President of the Polish Energy Office (Polish: *Prezes URE*), and other authorities which, even if only fragmentarily, exercise competences in the area of district heating (e.g. the Minister of Climate and Environment).

Polish regulations relating to the district heating sector attribute a special role to local government – in particular to municipalities (i.e. municipal councils), which in this respect should be treated as the factual creator of local heat markets as the scope of activities assigned to them significantly affects the operation of district heating companies. It should also be noted that it is currently the municipalities that remain the main initiators of change in the fight against air pollution in Poland.¹⁹

In addition to the national (and local) regulatory environment of the district heating sector, the European Union should also be considered as an important element influencing the future character of this sector. After Poland's accession to the European Union in 2004, regulation of the district heating sector is also taking place at the EU level, as under the Treaty on the Functioning of the European Union²⁰ the field of 'Energy' is a shared competence between the EU and the Member States.

It should be highlighted that at the EU level, the specificity of district heating remains strongly emphasised, allowing the Member States to regulate the legal model of district heating differently (Elżanowski, Czuba, 2011, p. 87). This understanding of DH is determined by the fact that it is difficult to speak of the existence of a cross-border element in the case of heat, as it is not, in principle, subject

¹⁹ It is worth noting, for example, the municipality of Żywiec and its actions taken in the fight for clean air. For more see: the report of the Energia Forum "Anti-Smog Roadmap for Żywiec. Clean heat by 2030" which indicates what steps should be taken to get rid of smog by 2030. Available at <https://forum-energii.eu/pl/analizy/antysmogowa-mapa-drogowa> (accessed 4 November 2023)

²⁰ Treaty on the Functioning of the European Union (O.J. C 326, 26/10/2012 pp. 0001- 0390).

to exchange between the Member States. On this basis, it can be concluded that there is no single European heat market.

5. LOCAL GOVERNMENT AS A “*DE FACTO* CREATOR” OF THE DISTRICT HEATING MARKETS

A special role in the functioning of the district heating sector has been assigned to the local governments, in particular, the municipalities. It is worth noting that the municipality remains at the same time a significant consumer of fuels and energy and, in many cases, a producer and supplier of heat (Kasprzyk, 2004). As a rule, the local government may perform its duties in two ways, i.e. by ensuring that the inhabitants' needs are met by using the services of entities professionally engaged in the supply of heat, or it may use for this purpose energy companies of which it remains the owner. However, the most beneficial solution for meeting the collective needs of the community must be taken into account (Zamasz, 2007, p. 39). The municipality should consider local technical, economic, and organisational conditions when deciding on the method of supply (Kasprzyk, 2004, pp. 53-54).

Existing regulations have imposed various obligations on local authorities in relation to the heat supply (as well as the supply of electricity and gas). According to the Municipal Government Act, obligations referring to heat supply have been classified to the collective needs of the community and categorized as one of the municipalities' own tasks.²¹ The Energy Law provides further clarification in terms of tasks by listing its own tasks related to heat supply. These include, among others: planning and organising heat supply in the municipality area; planning and organising energy efficiency measures and promoting energy-saving solutions in the municipality area; assessing the potential of high-efficiency cogeneration and energy-efficient heating or cooling systems in the municipality area.²²

With reference to the planning and organisation of the heat supply in the area of the municipality, the borough leader (mayor, president of the city) shall prepare a proposal of the assumptions for the heat supply plan, taking into account the plans made by the energy companies for the area of that municipality and the proposals necessary for the preparation of the draft assumptions.²³ In doing so,

²¹ See Art. 7.1.3 of the Act on the municipal government. The doctrine points out that the catalogue of own tasks is characterised by considerable stability, and that changes mostly consist of additions to existing tasks, undertaken in each case with evident respect for the principle of subsidiarity. (Płazek, 2023).

²² See Art. 18.1 of the Energy Law.

²³ For more see Art. 16 of the Energy Law.

the energy companies' plans should take into account the provisions of the local spatial development plan.²⁴ Draft assumptions shall be drawn up for the municipal area for at least 15 years and updated at least every 3 years. If the plans of energy enterprises do not satisfy the assumptions, the borough leader (mayor, city president) shall prepare a heat, electricity, and gaseous fuels supply plan for the entire area of the commune or for its part. The proposal of the plan shall be prepared on the basis of the assumptions passed by the commune council and shall be compliant with them.²⁵

The Commune Council shall adopt the assumptions to the heat, electricity, and gaseous fuels supply plan, and shall review the remarks, comments, and opinions received while the proposal of the assumptions was publicly available²⁶ and the voivodship governor shall investigate the consistency of the energy and fuel supply plans with the state energy policy and with the existing provisions.

The municipality's tasks concerning the planning and organisation of the energy efficiency measures and the promotion of solutions to reduce energy consumption in the municipality's area were imposed following the entry into force of the Energy Efficiency Act. As indicated in the literature, they can be implemented e.g. through promotional campaigns dedicated to the local community or the development of appropriate plans by the borough leaders (mayors, presidents of the cities) (Orzech, Stefaniuk, 2016).

With regard to the task of estimating the potential for high-efficiency cogeneration and energy-efficient district heating or cooling in the municipality's area, it is indicated that, in practice, the municipality – in order to provide a reliable assessment – will have to collect information from energy companies with cogeneration units in its area. The same *modus operandi* will be bound by assessing the potential for energy-efficient district heating or cooling systems (Orzech and Stefaniuk, 2016).

It is emphasised that the increasing technical potential for energy generation and supply, including heat generation using small local energy systems, means that organisational models aimed at increasing community participation in the energy sector are becoming increasingly common (Sokołowski, 2016).

²⁴ There is doubt about the qualification of the development plans submitted by energy companies as a means of ensuring the achievement of the municipality's tasks and, in a broader context, energy security. Firstly, it seems that companies should have a real influence on the creation of supply policy tools by municipalities, taking into account the fact that it is the supply plans that can have a significant impact on investment decisions taken by energy companies. Secondly, the tools currently provided by the legislator have not established mechanisms to involve energy companies more closely in the shaping of local energy security conditions and thus support municipal actions in this area. See more Ziemiński, K.M. (2012). *Planowanie energetyczne. Skuteczność aktualnych regulacji* (in:) K. Ziemiński (ed.), *Energetyka a samorząd. Prawne uwarunkowania rozwoju energetyki lokalnej w Polsce*. Poznań: Wydawnictwo Naukowe UAM.

²⁵ See Art. 20.1. of the Energy Law.

²⁶ See Art. 19 of the Energy Law.

The tasks assigned to the municipality make it possible to assign to it an overarching role in the process of influencing the local district heating markets and the district heating companies operating in these markets, acting as an entity:

- shaping the municipality's energy policy on the supply of electricity, heat, and gaseous fuels;
- conducting business activity related to the supply of electricity, heat, and gaseous fuels;
- consuming fuels or energy (Kasprzyk, 2004).

Significantly, the fact that in many cases the State or local government units have disposed of district heating companies does not exempt the municipality from the obligations referred to in the Municipal Government Act. The obligation to supply residents with heat can also be implemented through 'soft' measures such as identifying desirable district heating investments in spatial development plans or animating cooperation between district heating operators and supporting joint investment projects (Lewandowski, 2013, pp. 71-72).

Such highlighting of the role of local government contributes to the fact that its importance in the district heating sector as an entity influencing the shaping of heating policy on local markets is increasing. On the other hand, it is pointed out that the tools left at the disposal of local government units are regulated in a fragmented and vague manner, which is why they do not constitute a sufficiently effective legal basis to achieve the set goals (Ziemski, 2012, p. 12).

However, it is worth noting the statement included in the document "Energy Policy of Poland until 2030", which stated that *"strategic planning in the district heat sector is made more difficult (a change introduced by the Government Legislation Centre) due to local government failings to comply with the obligation imposed on them as regards preparing the assumptions to the plan of commune heat supply"*²⁷ – with rather poor assessment of local governments, and the statement contained in "Energy Policy of Poland until 2040" (in force), where it has been indicated that *"the involvement of local authorities and local energy planning has a special role in the implementation of the state policy on district heating. Heat needs are met close to the place of residence and heat markets are local in nature. In 2018, only 22% of communes had a planning document for the supply of heat, electricity and gas fuels. Therefore, it is necessary to increase the activity of communes, poviats and voivodeships in the field of local energy planning, the aim of which is the rational use of energy resources, maximisation of the effective use of the existing energy infrastructure, development of low-emission energy sources and improvement of air quality. Planning should be based on real cooperation between local government units, taking advantage of local syner-*

²⁷ The resolution of the Council of Ministers from 10 November 2009 – "Energy Policy of Poland until 2030", p. 32.

gies and potential".²⁸ This means, on the one hand, that municipalities will play a leading role in local heat market issues. On the other hand, it means that it is the municipalities that will be burdened with numerous responsibilities in relation to the design of local heat markets.

Unquestionably, the tasks of municipalities in the area of heat supply planning confirm the view present in the literature of the relevance of local authorities and their significant role in the district heating sector (Hettinga *et al.*, 2018; Bush *et al.*, 2018; Kelly, Pollitt, 2014; Bulkeley, Kern, 2006). It is underlined that the case for involvement of local governments is particularly strong, given their connections to local actors, wide-ranging local responsibilities such as social housing provision, and commitments to wider social and environmental concerns such as fuel poverty and air quality (Bush *et al.*, 2018, p. 85). Moreover, local authorities are situated closer to the citizens, placing them in a better position than a national or regional government to inform and educate their citizens. Local authorities are also in a position to broker collaborations between citizens, local businesses, and NGOs in order to facilitate the transition to clean energy technologies (Hettinga *et al.*, 2018, p. 278). Such an important role of local authorities means that it may be necessary in the future to further transfer district heating tasks from the national to the local level.

6. CONCLUSIONS

There is no doubt that in the face of the new challenges facing the district heating sector, including, in particular, those related to climate protection in its broadest sense, the role of local government will increase. Energy management by local governments should be considered not only in the context of the obligation to supply heat, but also as an important aspect of the implementation of the state's energy policy bringing tangible economic, ecological (environmental) and social effects. Unquestionably, the tasks of municipalities in the area of heat supply planning confirm the view present in the literature of the relevance of local authorities and their significant role in the district heating sector (Hettinga *et al.*, 2018; Bush *et al.*, 2018; Kelly, Pollitt, 2014; Bulkeley, Kern, 2006). It is underlined that the case for involvement of local governments is particularly strong, given their connections to local actors, wide-ranging local responsibilities such as social housing provision, and commitments to wider social and environmental concerns such as fuel poverty and air quality (Bush *et al.*, 2018, p. 85). Moreover, local authorities are situated closer to the citizens, placing them in a better

²⁸ The resolution of the Council of Ministers from 2 February 2021 – "Energy Policy of Poland until 2040", p. 58.

position than a national or regional government to inform and educate their citizens. Local authorities are also in a position to broker collaborations between citizens, local businesses and NGOs in order to facilitate the transition to clean energy technologies (Hettinga *et al.*, 2018, p. 278). Such an important role of local authorities means that it may be necessary in the future to further transfer district heating tasks from the national to the local level.

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Additional resources

- <https://www.forum-energii.eu/en/anti-smog-roadmap-for-zywiec-clean-heat-by-2030> (accessed 4 November 2023)
- https://uokik.gov.pl/orzecznictwo_prezesa_uokik.php (accessed 10 November 2023)