Wojciech Drożdż¹, Maciej Szmigiero², Jakub Dowejko³

Use of municipal real estate for the construction of public electric vehicle charging stations – legal and economic issues

DOI: 10.5604/01.3001.0014.3517

Abstract

The development of electromobility is part of a broader trend of building smart cities, in which power distribution system operators actively participate. The fact that the legislator has delegated part of the tasks related to the construction of electric vehicle charging infrastructure to these entities should also mean equipping them with legal mechanisms for the implementation of public objectives, including those based on the provisions of the Real Estate Management Act. However, due to the imperfection of the regulations, these entities do not have the tools to preferentially purchase real estate for the development of charging stations, and the local governments lack the basis for making donations for this purpose. However, distribution system operators together with local authorities are natural partners in promoting electromobility in cities.

Key words: electromobility, vehicle charging infrastructure, innovation, property management by local government, public charging stations

1. Introduction

Electromobility is one of the most important economic and social trends in the first decades of the 21st century. Although it mainly concerns metropolises and agglomeration areas in the most civilisation-developed countries, its consequences have an impact on national economies and the functioning of the mobility of societies. The need for changes in the currently dominant forms of transport – resulting from environmental conditions and social maturity on the one hand and the possibility of using modern technologies on the other – has led many countries to set themselves a new goal – a revolution

¹ Ph.D. in economics, Professor of the University of Szczecin, Head of the Department of Logistics at the Faculty of Management and Economics of Services at the University of Szczecin. Vice-President for Innovation and Logistics at Enea Operator sp. z o.o. Specialist in logistics, transport economics (including electromobility), energy management, energy security, as well as the author of numerous expert opinions and strategic documents for energy sector operators. ORCID: 0000-0001-5915-546X.

 $^{^2}$ Ph.D. in Law, legal adviser, employee of the Department of Administrative Law and Local Government at the Faculty of Law and Administration of Cardinal Stefan Wyszyński University in Warsaw. Author of publications in the field of administrative law, aviation law and new technologies law, with particular emphasis on unmanned aerial vehicles and electromobility. ORCID: 0000-0002-8023-1444.

³ A graduate of the Faculty of Management and Economics of Services of the University of Szczecin, assistant at the Department of Logistics of the Faculty of Economics of Finance and Management of that university, a member of the electromobility development team at Enea Operator sp. z o.o. ORCID: 0000-0001-8361-1146.

in the field of motoring, using electric motors. The introduction of incentives for the purchase of electric vehicles by residents of these countries is not only to make the automotive transformation process more realistic, but also to set it at the right pace. The diversity of almost 200 national economies in terms of their internal structure, level of technological and social development or degree of wealth is very clear. It seems that, like other trends in the world's economic history, electromobility will also be developed fastest in the most prosperous economies. The social potential of individual countries is also important, as well as the active support (or lack of it) provided by state institutions in the field of promotion of new emission-free motoring. The current state of transmission infrastructure in Poland allows for the development of electric vehicle charging stations. However, the implementation of electromobility requires proper coordination and cooperation of many actors, so it is important to plan all actions. Attention should therefore be paid to the development of long-term plans and to outlining important aspects of cooperation between distribution system operators and local authorities in order to avoid failures due to the inadequacy of adaptation of the network to modern vehicle charging technology.

The aim of this work is to present the normative background and practical problems of applying the law in the construction of public charging stations on properties owned by the basic local government unit, which is the municipality. The authors point to electromobility as a new and extremely important direction for the development of car transport, especially in cities implementing the concept of intelligent cities and aiming at improving air quality. When comparing the assumptions and directions of development of electromobility made on the basis of administrative planning acts with the legal basis regulating the construction of public charging stations, it is necessary to point out the problems resulting from the imperfections of these regulations. The lack of integration of the electromobility development system in cities with the existing legal framework governing the use of real estate owned by public entities is the thesis of this study.

2. Electromobility in the smart city concept

During the 1990s, many publications related to the subject of smart cities were published. The current review of the literature leads to the conclusion that the smart city is still a blurred concept with no clear definition. Initially, the term referred to information and communication technologies (ICT) in relation to modern urban infrastructure. Over time, some experts

have initiated the evolution of the concept and its extension to urban management and infrastructure, emphasizing the role of social capital and management within conceptual management4. Currently, smart city is defined as a city that uses communication and information technologies to increase interactivity and efficiency of the city infrastructure and its components, as well as to raise the awareness of its residents5. In order to fulfil their function as an attractive place to live and work, cities should meet social needs and business requirements. However, such needs are constantly changing. The terms Smart City 1.0, 2.0 and 3.0 were first used by Boyd Cohen, a researcher from the Universidad del Desarrollo in Santiago de Chile, who believes that smart cities can be inspired by the activity of technology companies, their own strategies or social initiatives; he has singled out three types of smart cities, successively depending on the use of available technological solutions⁶. Therefore, it is up to local government units to implement the smart city strategy - regardless of whether this obligation will be imposed by means of directly binding legal regulations or whether it will be established by means of a specific interpretation, based on the objectives and tasks of modern administration, in a broader normative context of supporting innovation.

The objectives of local government include: broadly understood satisfaction of inhabitants' needs, creation of economic development, ensuring continuity and sustainable development, as well as proper functioning of regional and local institutional systems – both in external and internal relationships. An essential condition for the development of an economy based on knowledge and innovation in the context of new public governance is extensive and successful cooperation with other institutions and organisations. The doctrine draws attention to the fact that insufficient or lacking infrastructure remains at the same time a major barrier to expanding the market for vehicles using alternative fuels⁷.

The issue of regional development is becoming increasingly important for the economy also due to the elimination of undesirable effects, e.g. conflicts in spatial management or environmental degradation and the search for new

⁴ W. Drożdż, M. Dźwigoł-Barosz, Wyzwania cywilizacyjne we współczesnej gospodarce. Wybrane aspekty, Toruń 2019, p. 102.

⁵ I. Azkuna, Smart Cities Study: International study on the situation of ICT, innovation and knowledge in cities, Bilbao 2012, p. 21.

⁶ Trzy generacje smart cities, https://smartcityblog.pl/trzy-generacje-smart-cities-i-dlaczego-polska-zostaje-w--tyle/[access: 11.04.2020].

⁷ M. Sfora, Ustawa o elektromobilności i paliwach alternatywnych, Warszawa 2019, p. 11.

sources of support for social development⁸. Such tasks can also be assigned to lower-level units, although their scope and intensity of impact will vary. Spatial planning becomes particularly important at the commune level, just as the environmental impact becomes real there: not only in the possibilities of pro-ecological actions – such as the establishment of a clean transport zone – but also in the obligations in this respect. By means of the Act on Electromobility⁹, obligatory tasks have been imposed on communes in the scope of planning the development of alternative fuels infrastructure or performing public tasks with the use of zero-emission vehicles, which may be considered as elements of a broader local government task in the field of environmental protection, but above all should be considered as a normatively entrusted obligation to support innovation.

Electromobility is the modern way to integrate the urban transport needs of the future. However, the integration of transport in accordance with the needs indicated requires the organisation of appropriate technical facilities. For example, the degree of functionality of electric cars depends on the correct positioning of charging stations for vehicles, which in turn should form an integrated part of the energy infrastructure, making the most of its potential in the most optimal way, but without overloading it. This coupling of the existing infrastructure with the newly created market of vehicles, components and services, together with the emerging market of vehicles, components and services, allows us to see opportunities for the Polish economy in the development stages of electromobility. For this to happen, the ability to think ahead and the interaction of different industries, sciences and state structures responsible for creating an institutional framework for the smooth development of the socio-economic environment are necessary.

3. Legislation in support of clean urban transport

In order to match the leading countries where *Smart City* is not only a theoretical concept, but also widely implemented idea, appropriate tools supporting the development of electromobility were created in Poland. Electromobility Development Programme – derived from the Strategy for Responsible Development (SRD) – aims to open up a new sector to the electromobility

⁸ B. Pilecki, Infrastruktura społeczna i jej znaczenie w rozwoju regionalnym, Szczecin 2019, p. 7.

⁹ Act of 11 January 2018 on electromobility and alternative fuels (Dz. U. of 2020, item 908) - hereinafter:

[&]quot;electromobility law."

industry, create financial and operational incentives for electric vehicles, support the provision of the necessary infrastructure in the form of vehicle charging stations and the integration of the power grid according to demand¹⁰.

At the EU level, the act relating to electromobility is Directive 2014/94/ EU of the European Parliament and of the Council of 22 October 2014 on the development of alternative fuel infrastructure (hereinafter: "AIF Directive")¹¹. This Directive aims to create a framework for the development of electromobility in the European Union countries. It provides that Member States are to ensure, through their national policy frameworks, that an adequate number of public charging stations are in place by 31 December 2020 to enable the use of electric vehicles at least in urban or suburban agglomerations and other densely populated areas and, where applicable, in networks defined by Member States. The provisions of the AIF Directive are guite general - they set out the directions for the development of electromobility, but do not determine the specific ways in which they will be implemented 12. The EU guidelines were reflected in the Act on Electromobility adopted in Poland and the creation of the National Policy Framework for the Development of Alternative Fuel Infrastructure¹³. Both of these documents are the basis for actions for the development of this new automotive sector; therefore, it can be concluded that since the adoption and entry into force of basic legal regulations, the status of electromobility development in Poland has changed from potential to normatively defined by law, with executive acts and a national planning document specifying the desired actions of the state – the National Framework for Policy of Alternative Fuel Infrastructure Development. A very important role in supporting this development is played by the Low-Emmission Transport Fund with legal mechanisms defining the scope and procedure of financial support the aid can be directed both to initiatives related to the development of electromobility (e.g. electric vehicles) and those based on alternative fuels (e.g. CNG,

¹⁰ For more on supporting innovation through legislative mechanisms, see: F. Elżanowski, M. Szmigiero, *Legal Framework For the Development of Electromobility: The Assessment of Legislative Solutions Supporting Innovation* [in:] W. Drożdż (ed.), *Elektromobilność jako trendy gospodarki*, Warszawa 2020.

¹¹ See also: M. Szmigiero, P. Czekalski, *Zadania podmiotów publicznych w zakresie elektromobilności. Selected issues* [in:] *Instytucje materialnego prawa administracyjnego. Przegląd regulacji.* Volume 2, I. Lipowicz (ed.), Warsaw 2020, p. 154; S. Rudnik, Wybrane zagadnienia związane z transpozycją do polskiego porządku prawnego dyrektywy 2014/94UE z dnia 22 października 2014 r. w sprawie rozwoju infrastruktury paliw alternatywnych [in:] "Autobusy. Technika, Eksploatacja, Systemy Transportowe" 2018, no. 6.

¹² EP and Council Directive 2014/94/EU of 22 October 2014 (Dz. Urz. EU L 307 of 28 October 2014, p. 1).

¹³ Krajowe ramy polityki rozwoju infrastruktury paliw alternatywnych, Ministerstwo Energii, Warszawa 2017.

LNG)¹⁴. The Act on Electromobility defines the obligations of public entities, the principles of operation of the Register of Alternative Fuel Infrastructure. regulations for the development and installation of infrastructure needed to operate electric vehicles, as well as the operation of clean transport zones in urban agglomerations. The act has launched a number of benefits for users of electric vehicles, such as: exemption from excise duty at the time of purchase of electric or hydrogen powered vehicles and temporarily also hybrid PHEVs, free use of bus lanes, increase in depreciation rates for entrepreneurs and a free parking zone. During the creation of the system based on the Act on Electromobility, it was assumed that it would encourage customers to switch to electric cars and by the end of 2020 as many as 50 thousand vehicles of this type were to be on Polish roads, 6 thousand charging stations (with a power not exceeding 3.68 kWh) and 400 stations with high charging power. What is more, in the CNG segment as many as 3 thousand cars were supposed to be on the roads, for which 70 refuelling stations were planned. However, this has not yet happened, the reason for which can be seen, on the one hand, in the relatively lower affluence of Polish society and higher purchase costs and, on the other hand, in the insufficient market response in terms of building networks of charging stations. According to the longer-term assumptions, by 2025 as many as 1 million electric vehicles and 54 thousand CNG vehicles will be on Polish roads. The total schedule for the implementation of electromobility in Poland is presented in Table 1.

Table 1. Schedule of electromobility development in Poland

Legislation				
Electromobility Development Plan in Poland	Adopted by the Council of Ministers on 16 March 2017.			
National policy framework for developing alternative fuel infrastructure	Adopted by the Council of Ministers on 29 March 2017.			

¹⁴ https://www.gov.pl/web/klimat/fundusz-niskoemisyjnego-transportu [access: 11.08.2020].

Act of 11 January 2018 on electromobility and alternative fuels	It entered into force on 22 February 2018.			
Act of 6 June 2018 amending the Act on Biocomponents and Liquid Biofuels, introducing the Low-Emission Transport Fund	It entered into force on 28 July 2018			
Implementation of the project				
Phase I – Preparatory nature	2016 – 2018			
Phase II – on the basis of the pilot projects launched, a catalogue of good social communication practices in the field of electromobility will be drawn up	2019 – 2020			
Phase III – Electromobility seen as a response to the challenges of a changing reality	2020 – 2025			

Source: https://www.gov.pl/web/aktywa-panstwowe/elektromobilnosc-w-polsce [access: 14/04/2020].

Statutory regulation for the construction of public charging stations hereinafter: PCS provided for dividing into two stages the period from the entry into force of the Act until the assumed number of stations was reached. In the first – commercial one – the stations were to be built by market players, relatively freely. In the second stage, if the assumed numbers could not be reached, the stations should be built in a prescriptive-administrative mode by power distribution system operators (hereinafter: DNO), indicated in accordance with the procedure laid down in the Act on Electromobility and Alternative Fuels.

Currently, at the prescriptive and administrative phase, under Article 64(1) of the Act, DNO is obliged to build a PCS in a specific place – this means that it should have a legal title to the land intended for the construction of a given PCS. Therefore, since the construction of the stations is a task that is somehow 'forced' by the legislator, and the final costs of this task will be borne by electricity consumers by including them among the components of the tariff, the option of cost reduction should be considered by the DSO obtaining free of charge rights to the land on which the stations will be built. A possible solution in this respect could be the legally regulated cooperation with the municipality. The non-pay-

ment was reserved in the Act only to establish transmission easement by the State Treasury, municipality or municipal legal entity to the DNO for the needs of the network supplying electricity to the PCS (built by this DNO). However, it should be considered whether the DNO can apply for free provision of land by the municipality for the purpose of building a PCS when the station is to be built on land owned by that local government unit.

The management of municipal real estate is subject to the provisions of the Act on Real Estate Management¹⁵, which regulates, among others, the rules of trade and management of real estate by the State Treasury and local government units. This Act provides for a number of situations in which the use of a given property may take place without remuneration. With regard to possible free of charge provision of land for the construction of PCS, the provisions of this Act regulating donations and conclusion of loan agreements are important.

Pursuant to Art. 13 item 2 of the Act on Real Estate Management, a municipality may make a donation of real estate for public purposes, as it allows for the donation of real estate owned, among others, by a local government unit to any entity, with the reservation that it may be made only for public purposes. The doctrine indicates that this is a public purpose within the meaning of Article 6 of the Act¹⁶, where, among the closed catalogue of such public purposes, in point 10 other public objectives are also identified in separate acts. In this context, it should be pointed out that Article 67 of the Act on Electromobility, according to which the construction of the OSLs indicated in the plan and the implementation of projects necessary to connect them to the grid, in particular the modernization, expansion or construction of the grid, constitute a public objective within the meaning of the provisions of the Act on Real Estate Management. This means that the legislator allows the municipality to make a donation to the entity implementing the construction of a PCS. The well-established judicial practice of administrative courts indicates that the notion of 'public purpose' used by the Real Estate Management Act, including Article 13 sec. 2 thereof, is not arbitrary and no reference to its common or general meaning can be made in its interpretation. On the contrary, in Article 6 of the Act, the legislator established a catalogue of public objectives within the meaning of the Act on Real Estate Management. It is a specific and closed catalogue in the sense that its point 10 – "other purposes" – includes only objectives "laid down in separate acts". The Supreme Administrative Court also noted that in order to talk about

¹⁵ Act of 21 August 1997 on real estate management (Dz. U. of 2020, item 65 as amended) – hereinafter: "Real Estate Management Act."

¹⁶ E. Bończak-Kucharczyk, Ustawa o gospodarce nieruchomościami. Commentary to Article 13, thesis 7, SIP Lex.

public purposes of donating real estate owned by a municipality, one has to find the purpose explicitly expressed in Art. 6 section 1-9 or a purpose defined as public in another act¹⁷.

In the light of the above, it should be noted that the Electromobility Act defines as a public objective only the construction of a PCS, but not its operation. This may be considered as a deliberate action of the legislator, especially as in the case of other infrastructure investments as objects of public purpose, specified in Article 6 of the Act on Real Estate Management, it clearly indicates their construction and maintenance. By invoking the narrow interpretation of the notion of public purpose, which is predominant in judicial decisions, the municipality could argue that it does not have the statutory competence to make such a disposition of real estate. It would therefore have to refuse to grant the DNO a donation of the property in question to be used for the construction described in the PCS plan. In such a case, it would remain open for the DNO to apply for (free) real estate lending.

However, in terms of lending, the municipality must be guided by the general principle of cost efficiency in property management. Therefore, lending would probably be possible primarily for the duration of the construction of the PCS, because at the operational stage it can (and even should) generate income. The provision of land by the municipality free of charge could then be regarded as mismanagement.

Another issue is the possible construction of a PCS along a public road. In such a case, the provision of land will be of an administrative and legal nature and will be in accordance with the provisions of the Act on Public Roads¹⁸. Pursuant to Article 39 section 1 paragraph 1 in connection with paragraph 1 a of the same Act, in order to locate PCS in the road lane it will be necessary to obtain the permission of the road administrator referred to in Article 39 section 3 of the same Act. Consequently, prior to the commencement of construction it will be necessary to obtain a decision on permission to occupy the road lane in accordance with Article 40 section 1 of the Public Roads Act. In accordance with Article 40 section 3 of the Act in question, a fee shall be charged for occupying a road lane. Its amount and method of determining depends on whether the object is qualified as a construction work or a technical device. With regard to public roads managed by a local government unit, toll rates are set by way of a resolution of the local government unit's authority, while for roads man-

¹⁷ See judgment of the Supreme Administrative Court of 10 October 2000, ref. II SA/Kr 1010/00.

¹⁸ Act of 21 March 1985 on public roads (Dz.U. of 2020, item 470) - hereinafter:- "Public Roads Act."

aged by the General Director of National Roads and Motorways – on the basis of a regulation of the minister in charge of transport. Both in the case of setting the rates by a local government unit and by means of a sub-statutory act, according to the content of the provision of art. 40 section 9 point 5 of the Act on Public Roads, when setting the rate, the type of device or construction object located in the road lane is taken into account. It would therefore be possible to set a separate rate for PCS built under Article 64 section 1 of the Electromobility Act. The legislator therefore allowed for the possibility of differentiation of the fee, but did not prescribe preferential rates for the construction of PCS. In view of the existence of a broader system of support for electromobility development, it can be considered that such a form of stimulation of development would be justified in substance, but could raise doubts with regard to state aid.

4. The process of building a system of vehicle charging stations illustrated by the example of DNO

Under the current state of law, it would be possible for the municipality to set a zero or preferential rate for lane occupation for the purposes of PCS. Notwithstanding the above, in the case of acquisition for a charge by DNO of land for the construction of a public charging station, this cost will be classified as the cost of building a PCS and, pursuant to Article 64 section 2 of the Electromobility Act, will be included in the tariff – in practice, this means that it will be passed on to consumers. When a PCS operator or the energy company acting both as a PCS operator and the charging service provider, the obligation to pay for the operation of the station, including charges for the use of the land it occupies, shall be transferred to that operator. In other words, from the moment these entities are designated, the cost of providing the title to the site where a PCS is located will constitute the cost of operating a PCS and thus no longer be charged to the DNO. From the point of view of the DNO, it is therefore crucial to reduce as much as possible the fees for the acquisition or ownership of real estate until the PCS operator is designated.

In terms of ensuring the legal title to the PCS for the duration of the operation, two potential solutions to secure the interests of DNO can be considered. Firstly, it may be the conclusion (for the duration of the construction of PCS) of an agreement with the municipality, while at the same time indicating in the agreement concluded with the PCS operator the obligation to conclude an agreement with the municipality giving the PCS operator the right to the property

for the duration of the operation of this station¹⁹. The agreement between the DNO and the operator should indicate the key elements of the future agreement, protecting the interests of the DNO as the owner of PCS. Secondly, with regard to the period of operation of PCS, a tripartite agreement may be concluded, setting out the rights and obligations of the municipality, the PCS operator and the DNO in respect of the land to be put into operation, with the indication that the fee for making the land available is to be paid by the PCS operator. With regard to the elements of the station construction process for which an administrative decision will have to be obtained, the DNO should obtain such a decision for the entire duration of the construction and operation of the charging station and transfer, by agreement, the costs associated with the operation stage of the PCS to its operator.

Moreover, it seems that according to the provisions of the Public Roads Act, a PCS operator will not be able to obtain its own permit to place a PCS in the road lane – this is because the DNO is the entity "placing" the device, and the operator will in this case be only the entity using the placed device.

5. Enea Operator's experience in building public electric vehicle charging stations

The Electromobility Act assumes that the infrastructure for charging vehicles will be developed on market terms, without the need for financial state interference. However, as mentioned earlier, the law sets out a minimum number of charging points in PCS that should be created by the end of 2020 (these figures are shown in Table 2). After the completion of the purely commercial phase, we are now dealing with a period of controling the administrative process in which, as the entity obliged to build the station, Enea Operator sp. z o.o. participates. (hereinafter: "Enea Operator"), being the electricity distribution system operator.

¹⁹ See also J. Pokrzywniak, M. Szambelańczyk, Umowa o ładowanie pojazdów elektrycznych. Aspekty cywilnoprawne [in:] Elektromobilność w rozwoju miast, W. Drożdż (ed.), Warszawa 2018, p. 53.

Table 2. Minimum number of public charging points installed in municipalities by 31 December 2020

Minimum number of public charging points	Number of inhabitants in the municipality [in thousands of people]	Total number of registered cars [in thousands]	Number of cars per 100 inhabitants
1,000	> 1,000	³ 600	³ 700
210	> 300	³ 200	³ 500
100	> 150	³ 95	³ 400
60	> 100	³ 60	³ 400

Source: Own study based on the Act on Electromobility

During earlier talks between Enea Operator and municipalities it turned out that also private investors intend to participate in the process of building PCS. As a result, the number of stations for which the DNO is responsible was reduced in Szczecin by as much as 101 points, while in Poznań – by 62 points. The exact figures in this respect are presented in Table 3.

Table 3. Number of points to be implemented based on the report of Enea Operator sp. z o.o.

No.	Parameter	Szczecin	Bydgoszcz	Gorzów Wikp.	Poznań	Zielona Góra	Total
1	Number of points resulting from the Act	210	210	60	210	60	750
2	The number of points to be implemented according to the report (15/01/2020)	185	181	34	171	38	609
3	Number of points to be implemented according to the plan (15/03/2020)	84	181	34	109	38	446

Source: Own research based on the report of Enea Operator sp. z o.o. (as of 15/01/2020)

Local governments are natural and key partners in promoting electromobility. The change of attitudes of the inhabitants of large cities is today one of the determinants of the fight against smog. It can be concluded that the era has began when electromobility is seen as one of key solutions to ensure better living conditions in cities by improving air quality. Such a large entity as Enea Operator, with high shares in the energy sales market in western Poland, is a good partner for local governments in the implementation of electromobility.

The aim of the cooperation is not only to present Enea Operator as an innovative entity, but above all to meet all requirements for the relevant infrastructure. In addition, the implementation of the tasks will allow for simple operation of the equipment by each driver, and the indicated locations will be equipped with chargers with appropriate technical parameters that guarantee the best quality service and protect the environment. This is another important aspect because the changes to improve our air and environment need to be implemented at the local level. Social responsibility, in line with the principles of sustainable development, plays a key role here. Emissions from vehicles with conventional combustion engines can be much more harmful to health than industrial pollution (due to the separation of industrial and urban zones in urban planning). According to the report of Dr. Maarten Messagie Transport and Environment²⁰, the use of electric motors, depending on how the electricity is generated, reduces the emission of CO₂ and dusts harmful to health and the environment. The share of renewable energy sources constitutes a significantly pro-environmental solution, however, already when using an energy mix, the emission of greenhouse gases associated with the use of electric vehicles is 25% lower than in the case of conventional vehicles. Another positive factor is the reduction of traffic noise, for which the first negative health symptoms are already recorded at 55dB.

6. Conclusions and recommendations

An important aspect in the development of electromobility – also observed in other European countries – is the long-term process of electrification of the transport sector (both public and individual) and the flexible, rational functioning of DNO to meet the new electricity demand created by the growing fleet of electric vehicles. This process will generate electricity demand in the range of 2.3-4.3 TWh per year, which is approximately 2% of the current Polish electricity demand amounting to 170 TWh in 2019.

²⁰ M. Messagie, Life Cycle Analysis of the Climate Impact of Electric Vehicles, https://www.transportenvironment.org/sites/te/files/publications/TE%20-%20draft%20report%20v04.pdf [access: 11/08/2020].

The importance of the development of electromobility is confirmed by the data contained in the Electric Vehicle Outlook 2019 report, according to which this sector will account for about 13-15% of electricity consumption in Europe by 2040. The evolution of the approach to the functioning and development of cities, aiming at the implementation of solutions appropriate for the smart city idea, causes that highly developed societies force representatives of local authorities to take intensive actions for sustainable development, including the improvement of the state of the environment in cities and promotion of zero--emission transport. This, in turn, results in the need for DNO to become actively involved in shaping the modern functions of cities based on the development of electromobility. Therefore, it seems extremely important to establish a permanent, formalised and multithreaded cooperation between the local government and DNO in creating a zero-emmission transport policy. Ongoing monitoring of the state of development of the system of charging points/stations in cities (including their use) should be both a public task of the local government and an initiative of DNO.

This paper points out the discrepancy between the declarations of public authorities expressed in the form of administrative planning acts relating to the development of electromobility, the tasks of DNO in the field of building PCS and the provisions of laws governing the principles of property management. While they cannot be accused of being contradictory, there are certainly problems in the application of the law due to regulatory imprecision and lack of full integration of systems.

In addition to the need for specific interventions by the legislator, it should be proposed that permanent public consultations be held to respond to the growing demand for electric vehicles charging in cities and that local authorities promote zero-emission motoring, together with financial and non-financial incentives for users of electric vehicles, many of which are contained in the current electromobility act.

A wider trend supporting this innovative area of the economy will also include the development of a fleet of electric vehicles in DNO, to replace specialised and technical combustion vehicles with electric ones. It may also be necessary to review and adapt the electromobility legislation to the changing socio-economic developments and the broader concept of the *smart city* together with new organisational solutions. As an example of a regulation which should be clarified by means of an amendment, the issues of the possibility of local governments to donate real estate for the purpose of

building PCS should be indicated. In the light of current regulations, DNO do not have the right to demand that the owner or manager of the property on which a PCS is planned to be established make it available free of charge. At the same time, the imprecision of regulations concerning the possibility of making a donation, resulting – as it can be assumed – from the legislator's mistakes, limits the possibility of making a donation by municipalities to DNO involved in the construction of PCS. Legislative changes in this area would certainly have a positive impact on the pace of development of the electric vehicle system in Polish cities.