

MATEUSZ KAROLAK

UNIVERSITY OF LODZ, FACULTY OF LAW AND ADMINISTRATION

Ul. Stefana Kopcińskiego 8/12, 90-232 Łódź, Mateusz.Karolak@firmaprawnicza.pl

SELECTED LEGAL ASPECTS OF INNOVATION IN RENEWABLE ENERGY

Abstract

The aim of the article is to present the legal aspects of innovation in renewable energy, especially the bills and the resulting consequences, as well as the protection of intellectual property in the context of patents and inventions. Polish legislation on renewable energy was compared with German legislation.

Key words

renewable energy sources, renewable energy sector, investments in renewable energy sources, protection of intellectual property, patent, invention

Introduction

Renewable energy, in the form of wind energy, solar energy, hydropower, geothermal and biomass energy, is available in unlimited quantities. Unlike fossil fuels, whose resources are shrinking at a significant rate, the use of renewable energy is not harmful to the environment and is safe for humans. In addition, the use of renewable energy reduces the emission of pollutants into the atmosphere and makes the national economy independent of external energy supplies. Moreover, the need for eco-innovation in the acquisition and utilization of renewable energy in the economy is also conducive to the development of new technologies - intellectual property rights protected under industrial property law.

Renewable energy sources in Poland

The policy of the Polish government to reduce energy consumption is determined by the New Environmental Policy of the State, which assumes the modernization of heating systems, reduction of losses in water supply networks, water conservation, building insulation, waste segregation and recovery, waste heat utilization and many other modern solutions in the technical infrastructure of cities and settlements. According to the law, in order to fulfill the assumptions made in the ecological policy of the state, the local government prepares, respectively, voivodeship, powiat and municipal programs for environmental protection. The document, currently accepted by the Council of Ministers, focuses primarily on actions aimed at improving the quality of the environment, implementing the principle of sustainable development, halting unfavorable climate change and protecting natural resources, including biodiversity. The document emphasizes the promotion of the development of renewable energy sources and the rapid modernization of the power industry. According to the assumptions, conducting environmental impact assessments must be possible at the stage of the study of spatial planning conditions and directions. Such a solution will ensure that environmental protection will be included in land use plans.

The current development of the state power industry was included in the strategic document adopted by the Council of Ministers on 10 November 2009 under the name of "Poland's Energy Policy until 2030", according to which Poland has committed to provide at least 15% of the share of renewable energy in gross energy consumption until 2020. These commitments stem directly from the assumptions of Directive 2009/28/EC on the promotion of the use of energy from renewable sources. The strategic document is not a source of law, and therefore it has become necessary to compensate for the obligations imposed by EU law by enacting the relevant laws. The implementation of the obligations arising from the directive was preceded by the Council of Ministers adopting the "National Action Plan on Renewable Energy" (NAP) on 6 December 2010. This document sets national targets for the share of renewable energy used in transport, electricity, heating and cooling in 2020. The goals are to be realized by increased generation of electricity from wind generation and by greater use of biomass energy by adopting appropriate legislation.

Draft Act on RES

On 5 October 2012, the Ministry of Economy has posted information on its website about the completion of the preparation of the second draft of the act on renewable energy sources. The first bill on 20 December 2011 met with negative feedback from the energy industry, as a result of which, due to public consultation, new solutions were introduced to the bill, which are approaching the solutions adopted in the German Renewable Energy Sources Act (Gesetz für den Vorrang Erneuerbarer Energien -Erneuerbare-Energien-Gesetz – EEG).

According to the justification for the bill on renewable energy sources, the development of renewable energy sources should take place in a manner that ensures not only the interests of entrepreneurs operating in the renewable energy sector, but also other entities which will be affected by the development of this energy, especially energy consumers, entities operating in the agricultural sector or communes where investments in renewable energy sources will take place.

The aims of the bill are:

- increasing energy security and environmental protection, also through the efficient use of renewable energy sources;
- the rational use of renewable energy sources, taking into account the implementation of the long-term economic development policy of the Republic of Poland, fulfilling the obligations arising from the concluded international agreements, and increasing the innovativeness and competitiveness of Poland's economy;
- shaping mechanisms and instruments supporting the generation of electricity, heat, cold and agricultural biogas in systems of renewable energy sources;
- developing an optimal and sustainable end-user supply for electricity, heat or cold and agricultural biogas from systems of renewable energy sources;
- creating innovative solutions in the scope of generating electricity, heat, cold and agricultural biogas in systems of renewable energy sources;
- creating new jobs as a result of the increase in the number of new systems of renewable energy sources;
- ensuring the use of energy by-products and residues from agriculture and industry using raw agricultural materials.

The realization of the aims is not only to meet the guidelines contained in the Polish government's strategy documents on the use of renewable energy sources in the framework of the concept of sustainable economic development but also to implement a uniform and readable incentive system for green energy producers, enabling the growth of investments for new generation units, with emphasis on distributed generation based on local renewable energy resources.

According to the Ministry of Economy, the feed-in tariff, which is used in most countries around the world, will be the most effective way to promote the development of renewable energy sources.

The objective of the feed-in tariff is the fixed and unchanging price per unit of electricity produced. The purchase is carried out by an energy company providing services in the field of electricity trading in the territory where the installation is connected. Support for large power generating units from RES will not be different from the existing solutions provided for in energy law based on the system of certificates of origin functioning in parallel with the obligation on entities to demonstrate the share of renewable energy sources.

The novelties are so-called micro-installations, and, in fact, the creation of support systems for prosumers generating green energy mainly for own needs. To simplify the business for small installations, such as with a combined electrical power capacity of over 40 kW up to 200 kW, the proposed law provides for the abolition of concessions for the generation of electricity in micro sources, preferences in connection with generating units using only fossil fuels, the introduction of flexible and readily supportive principles for green energy production, the possibility of obtaining guarantees of origin of electricity generated from RES.

According to the assumptions, the proposed law also has the following effect:

- improving the country's energy security by increasing the supply of energy based on renewable energy sources made from domestic raw materials;

- basing a significant portion of gas, electricity and heat and agricultural biogas as transport fuels on many local biogas plants will create the opportunity to supply biogas with natural gas quality to many rural and urban residents and businesses;
- creating so-called local value-added chains, among others, by economic activation of rural areas and increased employment among local communities, agricultural businesses and related to renewable energy (green jobs);
- stimulating the development of local entrepreneurship related to the use of locally generated heat;
- improving energy infrastructure and increasing the competitiveness of Polish agriculture.

The RES bill also modifies the rules for conducting business in the field of renewable energy production in RES installations. According to art. 3, creating and running a business in the field of electricity, heat or cold production from renewable energy sources in installations of renewable energy sources other than micro-installations and small installations requires concessions under the terms and conditions specified in the provisions of the Energy Law. The regulation addressed to prosumers is the provision contained in art. 4, which states that an electricity, heat, or cold energy generator in a micro-installation being a natural person not running a business, who generates electricity, heat or cold for personal consumption may sell the surplus of unused electricity generated in the micro-installation and introduced into the distribution network. The surplus of unused electricity is the amount of electricity produced in the micro-installation minus the sum of the electricity generated by the micro-installation consumed by the producer for personal use and the electricity consumed by the producer from the distribution network. Sale of surplus will not constitute an economic activity within the meaning of the Act of 2 July 2004 on the freedom of economic activity (Journal of Laws of 2010 No. 220, item 1447, as amended). The sole obligation of the electricity generator in the micro-installation will be to report to the electricity distribution system operator in whose area the micro-installation is connected to the network, the location, type and power of the installed micro-installation.

The power producer in a small installation will, however, be required to have a legal title for buildings in which the business will be carried out, to have a legal title for a small installation, to have appropriate facilities, installations including technical devices that meet the specific requirements, in particular enabling them to properly carry out their business in the scope of small installations.

According to art. 40 sec. 1, the entity executing responsibilities in the scope of purchasing the generated electricity from renewable energy sources in the installations of renewable energy source and generated electricity from agricultural biogas in the installations of renewable energy sources, as defined in the act, is the obliged seller.

The obliged seller is a seller of electricity supplying the largest number of final customers of this electricity, in relation to the number of end users of electricity connected to the distribution network or the transmission grid of the electricity distribution system operator or the electricity transmission system operator, in its operation as of the 30th of September of the previous year. In the case of an equal number of end users of electricity, the obliged seller has the highest volume of electricity sales to end users in the first half of the previous year.

The obliged seller is appointed until the 31st of October of each year by the President of the Energy Regulatory Office based on the information provided by the operators of the electricity distribution system or the transmission system operator until the 15th of October of each year. The obliged seller is appointed by the President of the Energy Regulatory Office by decision, ex officio for individual power systems. Filing an appeal against a decision does not affect the responsibility of the obliged seller to fulfill the obligation of purchasing electricity.

The seller is obliged to purchase from the producer of the electricity generated from renewable energy sources and electricity generated from agricultural biogas, in renewable energy sources installations, which has been introduced into the distribution or transmission grid located near the operation of this seller of electricity from renewable energy sources in the micro-installation or registered in the small power producers register.

The seller purchases electricity from micro-installations and small installations at a fixed and unchanging price for the purchase of electricity, valid on the date of putting the installation of the renewable energy source into use, specified in the regulation. The price of electricity purchased depends on the installed total capacity of the renewable energy source installation. The above fixed price system is modeled on German solutions consisting

in the application of fixed, preferential purchase prices of renewable energy. In accordance with the bill, the energy company engaged in economic activities in the field of transmission or distribution of electricity will be obliged to prioritize the connection of renewable energy sources before installations that are not from RES, which also resembles in form the obligations imposed on energy companies in German law.

RES in Germany

The main sources of renewable energy in Germany are water, wind and biomass energy, which are used in industry as well as in small RES installations through the support system for the development of home heating systems using solid biomass. By the end of 2008, Germany had more than 210 power plants/CHP plants in use with power from 120 kW_{el} to 100 MW_{el} using biomass.

The German support system for generating electricity from renewable energy sources is regulated by the act "Gesetz zur Neuregelung des Rechts der Erneuerbaren Energien im Strombereich und zur Änderung damit zusammenhängender Vorschriften" of 25 October 2008. Obtaining renewable energy is not something new in German legislation, as the first law on renewable energy came into force on March 29, 2000 and was amended several times. It was also a milestone on the road to the development of renewable energy sources in Germany's energy balance. Frequent changes to the German law were mainly aimed at adapting regulations to the current market, energy and environmental needs.

The purpose of the German law is to enable sustainable energy development while accounting for climate, nature and environmental protection, reducing energy supply costs for the national economy, and developing technologies to produce electricity from renewable energy sources.

German regulations provide support for the generation of RES energy in the form of remuneration depending on the net energy produced for a given type of renewable fuel. The remuneration is fixed for a period of no more than 20 years. Any renewable energy source producer may seek remuneration. At the same time, German law does not support the joint combustion of biomass with fossil fuels. German regulations adopt the principle of distributed support, which is intended to fund small installations with a capacity of no more than 20 MWe. The adoption of a distributed support system will enable it to promote the use of RES energy in the country's total energy balance. In addition to the remuneration for RES energy, German legislation also provides for incentives to encourage manufacturers to generate RES energy more efficiently. One should also note the German solution of introducing the obligation to buy heat from renewable sources of energy. The obligation was imposed on owners of newly created and existing buildings. The obligation is considered fulfilled if the heat demand is covered by a pre-established share of RES or by saving energy.

As in the case of the Polish RES bill, the German legislator has already introduced into its legal order rules concerning the obligation to purchase electricity produced from renewable energy by designated energy companies. The obligation to receive electricity from the owner of the RES installation rests with the network operator and then the transmission system operator to the electricity supply company, which transfers the electricity to end users. In return for the energy transferred, the final recipient pays the remuneration that goes to the owner of the RES installation. In addition, the owner of a renewable electricity generating installation may seek to issue a certificate of origin designed to establish that the electricity produced is from RES.

Until July 30th each year, transmission grid operators determine the amount of energy they have collected, paid and compensated in the past calendar year, and the share of RES electricity in the total energy supplied by the electricity companies to end users. Each transmission network operator must receive as much electricity as is appropriate to the designated share.

The purpose of the German RES law is to enable sustainable energy development, accounting for climate, nature and environmental protection, reducing energy supply costs for the national economy, and developing technologies to produce electricity from renewable energy sources.

Protection of RES innovation

Protests against ratification of the Anti-Counterfeiting Trade Agreement, more commonly known as ACTA, not only revealed a lack of public awareness on the protection of intellectual property, but also demonstrated that ignorance in the field of these assets can be detrimental to their creators, and thus lead to a slowdown in technological and economic development. The widespread social acceptance of "theft" of intellectual property

causes that any attempt to regulate this matter will be met with vigorous opposition from their users. The present situation is conducive to the ease with which these goods can be used. The detection of infringements is difficult because of their intangible nature, the lack of effective counteractive measures by state authorities and institutions, and by the scale of the phenomenon.

Conducting and disseminating research on renewable energy sources involves the emergence of various technological solutions that can be protected by intellectual property rights (hereinafter IPR). Due to the lack of a uniform intellectual property protection model, RES investors should have initial knowledge of industrial property rights, but of copyright law to analyze the benefits and losses associated with the choice of a specific protection innovation.

The concept of material goods

In the literature of the subject, the notion of immaterial goods is opposed to the notion of the good itself¹⁵. There are also positive definitions, according to which immaterial goods are some immaterial assets which are the subject of law for two reasons. First, due to their close relationship with man, they become assets in themselves¹⁶. Second, if it is the effect of human intellectual work, then it should be protected for aesthetic, practical or utility values¹⁷.

The above definition allows for the distinction of personal goods, closely related to human dignity and conceptual goods, resulting from the mental effort of the human being¹⁸. The immaterial nature of the indicated goods means that they do not appear in the reality surrounding us as physically discernible objects¹⁹. However, they exist next to material goods, so things that are only a substrate enabling to get to know them²⁰.

Conceptual material goods

The common denominator of conceptual immaterial goods is that they are the result of human intellectual activity. Due to their legal nature, they can distinguish works that are the subject of copyright and the solutions and signs that are the subject of industrial property rights²¹. For the purposes of this paper, the category of the work and the solution should be defined, as the category of the solution in particular will be the subject of further consideration.

The work is captured as a manifestation of the creative activity of a person of an individual character and determined in any way²². The concept of a solution includes inventions and other categories indicated by the law. The presented division is not purely methodological but also has serious legal consequences. While works such as immaterial goods are legally protected regardless of their destiny or value, solutions and inventions acquire protection as immaterial goods only upon fulfillment of the additional condition that they demonstrate their ability to be used industrially²³. In addition, significant differences between these immaterial goods are apparent when comparing the scopes of their protection. In the case of works, a protected good is the way of expressing them²⁴. In the case of solutions, the protected good is an idea, a method of use.

Characteristics of industrial property rights

Due to the subject of this paper, concerning technological innovations within RES, the conceptual immaterial goods which have been covered by the scope of the Paris Convention and belong to the category of industrial

¹⁵W.J. Katner [in:] Kodeks cywilny. Część ogólna. Komentarz, M. Pyziak-Szafnicka (ed.), Lexis Nexis, Warsaw 2009, p. 468.

¹⁶S. Grzybowski, Podmioty i prawa podmiotowe [in:] Zagadnienia prawa wynalazczego, S. Grzybowski, A. Kopff, J. Szwaia, S. Włodyka (ed.), PWN, Warsaw 1972, p. 58.

¹⁷R. Golał, Dobra niematerialne. Komentaryj prawne, Oficyna Wydawnicza Branta, Bydgoszcz-Warsaw 2005, p. 16.

¹⁸The term "conceptual immaterial goods" is not widely accepted in law, but for the purposes of this article it has been used to make the necessary generalizations.

¹⁹U. Promińska, Prawo własności przemysłowej, Lexis Nexis, Warsaw 2005, p. 15.

²⁰W. J. Katner [in:] System prawa prywatnego. Prawo cywilne-część ogólna, M. Safjan (ed.), Instytut Nauk Prawniczych PAN, Warsaw 2007, p. 1236.

²¹U. Promińska, Prawo własności... op.cit., p. 16.

²²R. Golał, Dobra niematerialne... op.cit., pp. 33-37.

²³W. J. Katner [in:] System prawa... op.cit., p. 1237.

²⁴See: Art. 9 sec. 2 of the Agreement on trade-related aspects of intellectual property rights, Journal of Laws of 1996 No. 32, item 1443; Art. 2 of the WIPO Copyright Treaty of 20.12.1996 r., Journal of Laws of 2005, No. 3, item 12.

property deserve closer attention. They are goods whose role and meaning are revealed in the broadly understood industry, and which are additionally the result of the effort of the human mind²⁵.

The measurable economic value of industrial property and the need for effective legal protection make contemporary European regulations based on the protective structure of absolute and exclusive subjective law, for which the model is the property right of the good²⁶. In addition, these are property rights and are based on the administrative decision of a state authority²⁷.

The exclusive nature of the described rights means that a legitimate monopoly is granted to a legitimate entity whose content includes the right to exclusive use in a profitable or occupational manner from the protected good. The scope of the guaranteed monopoly is, however, limited by the need to account for the specific interests of other participants of trade²⁸.

The absolute nature of industrial property rights makes it possible to effectively exercise rights over monopoly goods against all other participants in legal transactions. Third parties may not enter into the sphere of entitlement provided for by the monopoly granted to the entitled person, except as provided for by law. The property character of industrial property rights indicates that they can be effectively sold.

The essence of the patent

One of the pre-industrial property rights described in subsections is a patent whose structure is based on civil law²⁹. It provides protection for one of the categories of conceptual immaterial goods, which are inventions, regarded as technical solutions not apparent from the prior state of knowledge and suitable for use³⁰. The patent itself as a subjective right constitutes a legal monopoly to be used by the person entitled to the solution being the object of the submitted invention³¹.

The characteristics of a patent include its legally defined scope, the duration, the territory of the protection granted, the scope of protection and the manner in which the invention is to be used³². Apart from the indicated features of the patent, as the structure of subjective law, it is distinguished by absolute effectiveness, property and formal character³³. It has been noted in the literature that the absolute nature of a subjective right is most apparent at the time the patent is infringed, that is the unlawful intrusion into the monopoly of the entitled entity, which entails specific legal sanctions³⁴.

Patent content

The specification of a patent would not be complete without indicating its content, that is, the total amount of powers it imposes on its beneficiary. The scope of these powers also marks the boundaries of the patent granted by the monopoly. The content of the patent can be determined in a positive and negative way³⁵. In positive terms, the patent covers the sphere of the ability to use the invention in a way that enables it to be used and benefits the beneficiary³⁶. In negative terms, the patent allows the beneficiary to prohibit third parties without his consent from using the patented invention during the term of validity of the patent, including to manufacture articles according to the patented invention, the offering of such articles, their marketing, advertising and import to the country in which the invention is protected³⁷.

²⁵ U. Promińska, *Prawo własności...* op.cit., p. 18.

²⁶ R. Skubisz, *Prawo własności przemysłowej*, „Państwo i Prawo” 2002/3, p. 3.

²⁷ W. J. Katner [in:] *System prawa...* op.cit., p. 1236.

²⁸ U. Promińska, *Prawo własności...* op.cit., p. 22.

²⁹ M. du Vall, *Prawo patentowe*, Wolters Kluwer Polska, Warsaw 2008, p. 227.

³⁰ L. Głiciński, *Wykonywanie praw własności intelektualnej w prawie Wspólnoty Europejskiej*, ABC, Warszawa 1997, p. 30.

³¹ W. Kotarba, *Ochrona własności przemysłowej w gospodarce polskiej*, Polskie Wydawnictwo Ekonomiczne, Warsaw 2000, p. 64.

³² A. Szajkowski [in:] *Komentarz do prawa wynalazczego*, S. Sołtyński, A. Szajkowski, T. Szymanka (red.), Wydawnictwo Prawnicze, Warsaw 1990, p. 96.

³³ U. Promińska, *Prawo własności...* op.cit., pp. 21-22.

³⁴ A. Szewc, M. Kępiński [in:] *Konwencja paryska o ochronie własności przemysłowej*, A. Adamczak, A. Szewc (red.), Wolters Kluwer Polska, Warsaw 2008, p. 63.

³⁵ M. du Vall, *Prawo patentowe...* op.cit., p. 228.

³⁶ S. Sołtyński, *Charakter praw wynalazcy*, Poznań 1967, p. 72.

³⁷ J. Barta, R. Markiewicz, *Prawo własności intelektualnej w Światowej Organizacji Handlu*, Lexis Nexis, Kraków 1996, p. 84.

It should be noted, however, that the exclusivity granted by the patent is not absolute. It may be limited both by the third party's consent to the use of the invention and in the situation where the third party uses a patented solution under the terms of a compulsory license³⁸.

Purpose of the patent

Some authors assume that the purpose of a patent is to make the invention available to the public by marketing products that objectify the invention, and the means to achieve such a purpose are precisely the exclusive use granted to the patent holder³⁹.

The Court of Justice of the European Union has defined the purpose of the patent as consisting in assuring the exclusive right to use the goods and their first inclusion in the market to compensate the creative endeavors of the inventor. Compensation can be either directly or through licensing to third parties, and the inventor has right to oppose infringements⁴⁰.

Summary of assumptions of the theories justifying the granting of patent protection to inventions

Briefly presenting the basic assumptions of the theories justifying the patentability of inventions helps to understand the underlying assumptions of the protection of technical solutions, including technological solutions in the RES field. Incentive theory is useful for explaining the meaning and justification of the need for patent protection for such solutions. The need for patent protection of technological solutions within RES can, however, be mentioned only if the solution is at the same time within the definition of the invention.

From a semantic point of view, the concept of an invention, such as a specific technical solution, covers the concept of a technological solution. Since only an invention can be the subject of a patent, it seems necessary to present what an invention is.

Invention

The finding that the subject of patent protection is the immaterial good of the invention does not yet explain the substance of the invention itself⁴¹. It should also be noted that European law lacks a definition of the legal concept of an invention, which makes it necessary to reach definitions constructed in the literature of the subject to determine its content⁴². Referring to the doctrinal definition is only of secondary importance, as in modern patent law the concept of invention is determined by specifying the premises that a solution must meet to be a patentable invention.

In European law, the scope of the patent is defined by specifying the patentability that the solution must fulfill and, at the same time, identifying in the catalog the solutions that are not patentable in the context of the law⁴³. The absence of a legal definition of an invention has the many advantages. First, it avoids the rapid anachronisation of legal concepts. The rapid development of civilization results in categories of solutions that the legislature could not have foreseen when creating legislation. Second, the lack of a legal definition of invention allows the flexible adaptation of its subject scope by appropriate offices or courts, which, due to their expertise, are prepared to settle *in casu*. For the reasons given, the legal definition of the concept of invention has been abandoned, also in the international agreements applicable in the European Union⁴⁴.

However, it is important to point out the disadvantages of such a solution. Flexible adaptation of the scope of the present invention may lead to the exclusion of exclusive rights from a patent for new categories of immaterial goods whose patentability is questionable. It has been noted in the literature that the tendency to widen the

³⁸ L. Gliciniński, Wykonywanie praw własności... op.cit., p. 30.

³⁹ J. Szwaja, A. Szajkowski, System prawa własności intelektualnej, vol. III: Prawo wynalazcze, Warsaw 1990, p. 280.

⁴⁰ Judgment of the Court of Justice of 31.10.1974 in the case C-15/74 Centrafarm BV et Adriaan de Peijper v Sterling Drug Inc., Zb. Orz. of 1974, p. 1147, item 9.

⁴¹ A. Nowicka [in:] Prawo własności przemysłowej, U. Promińska (ed.), Warsaw 2005, p. 40.

⁴² S. Sołtyński [in:] System prawa własności intelektualnej. Volume III. Prawo wynalazcze, J. Szwaja (ed.), Wrocław-Warsaw-Kraków-Gdańsk-Łódź 1990, p. 25.

⁴³ C.M. Correa, Implementing the TRIPS Agreement in the Patents Field, "The Journal of World Intellectual Property", 1998/1, pp. 76-77.

⁴⁴ For example, the Munich Convention does not contain it.

scope of the present invention is becoming more and more powerful today⁴⁵. There is thus a problem as to whether the criticism of the increase in capacity of the concept of invention is justified in relation to a computer program. The reference to the doctrinal proposal for defining the concept of invention will determine its essence and may prove useful in comparing the scope of this concept to the scope of the term computer program. According to an exemplary definition, under German law, the invention relates to a planned operation using patented natural forces, to directly cause a predictable effect⁴⁶.

The invention as a technical solution

When assessing the patentability of a given solution that may be an invention, it is appropriate to point to the technical nature of any solution to be considered as an invention. The notion of technicality is thus complementary to that proposed in the subsection preceding the definition of the invention. Only when a solution has a technical character can it be qualified as an invention⁴⁷.

The technical character of the solution means that this solution concerns a specific area of technology and serves to solve a technical problem⁴⁸. The very concept of technology encompasses this sphere of human activity, which uses the natural sciences that require experimental verification⁴⁹. If the solution belongs to this sphere, it has technical qualities. However, the solutions that require only logical verification and thus are abstract in nature do not have the described feature⁵⁰. This applies mainly to mathematical and linguistic solutions. Adopting the technical character of a solution makes it an invention.

Conclusion

Comprehensive technological solutions used in the RES industry can be inventions, and thus are subject to patent protection if they have patentability. The need to protect some technical solutions lies in the need not only to reward their creators for the intellectual effort they put into the discovery of a new technical solution, but also as an incentive to seek innovative solutions. It seems that the RES sector, like any other industry involved in the development and application of technical and technological solutions, will not develop consistently without the protection of such solutions. The goal of the renewable energy industry, notably the reduction of consumption scarce energy sources to reduce pollution in the natural environment of Earth. Without new technological solutions that will enable more efficient use of renewable energy sources, the current problem of depleting liquid and solid fuels will remain. It is doubtful whether such new solutions will arise without providing them with effective legal protection. Currently, the only effective form of their legal protection is the patent.

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⁴⁵ J. Barta, R. Markiewicz, *Oprogramowanie open source w świetle prawa*, Lexis Nexis, Kraków 2005, p. 11.

⁴⁶ S. Sołtysiński, *Prawo patentowe Stanów Zjednoczonych Ameryki Północnej [in:] Wybrane systemy prawa wynalazczego państw kapitalistycznych*, „Zeszyty Naukowe Uniwersytetu Jagiellońskiego” 1976/6, pp. 174-175.

⁴⁷ M. du Vall, *Prawo patentowe...* op.cit. p. 160.

⁴⁸ See rules: 27 sec. 1 item (a) and (c) and 29 sec. 1 of the Rules of Procedure of the Munich Convention.

⁴⁹ M. du Vall, *Prawo patentowe...* op.cit., p. 161.

⁵⁰ S. Sołtysiński [in:] *System prawa własności intelektualnej. Volume III. Prawo wynalazcze*, J. Szwaia (ed.), Wrocław-Warsaw-Kraków-Gdańsk-Łódź 1990, p. 30.

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Wybrane aspekty prawne innowacji w energetyce odnawialnej

Abstrakt

Celem artykułu jest zaprezentowanie prawnych aspektów związanych z innowacjami w energetyce odnawialnej, a szczególnie projektów ustawy i wynikających z niej konsekwencji oraz ochrony własności intelektualnej w kontekście patentów i wynalazków. Polskie prawodawstwo w zakresie energetyki odnawialnej porównano z legislacją Niemiec.

Słowa kluczowe:

sektor energetyki odnawialnej, inwestycje w odnawialne źródła energii, ochrona własności intelektualnej, patent, wynalazek, odnawialne źródła energii