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## Renewable energy power plants<sup>1</sup>

Elektrownie wykorzystujące energię odnawialną

The opinion presents the regulatory conditions related to the launch of installations using renewable energy sources, including wind and photovoltaic installations. The conditions related to obtaining permits in the investment process and environmental requirements were analysed, such as the need to conduct an environmental impact assessment. Progress in the transposition into national law of the requirements of Directive 2018/2001/EU (REDII Directive) was assessed.

**Keywords:** energy, environmental protection

W opinii przedstawiono uwarunkowania regulacyjne związane z uruchomieniem instalacji wykorzystujących odnawialne źródła energii, w tym instalacji wiatrowych i fotowoltaicznych. Przeanalizowano uwarunkowania związane z uzyskaniem pozwoleń w procesie inwestycyjnym oraz wymogi środowiskowe, m.in. konieczność przeprowadzenia oceny oddziaływania na środowisko. Oceniono postępy w transpozycji do prawa krajowego wymogów wynikających z dyrektywy 2018/2001/EU (dyrektywa REDII).

**Słowa kluczowe:** energia, ochrona środowiska

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### **1. Is the construction and operation of renewable energy power plants regulated? Which is the level of regulation? Please, indicate the law or regulation, which your answers are based on.**

The development of renewable energy sources (RES) in Poland has become one of the essential goals of the Polish energy policy. Under EU legislation, Poland is obliged to achieve renewable energy targets: for 2020 the target value was set as a 15 per cent renewable energy share in final energy consumption. For 2030, the Polish government committed to reach a 21–23 per cent share of renewable energy in the gross final energy consumption.

The regulatory framework for renewable energy development is composed of a number of statutes (the Acts) and secondary legislation. The general rules are

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provided in the Energy Law. The Energy Law sets forth the rights and obligations of market participants as well as the powers and obligations of the administrative authorities (such as the President of the Energy Regulation Office). The Energy Law stipulates the rules of conducting business activities in the energy market in Poland by regulating the terms of grid connection to the transmission and distribution grid as well as by regulating the requirements regarding obtaining the energy licences necessary to conduct business activity (e.g. in electricity generation). In the case of the renewable energy sector, the key statute regulating the rights and obligations of the renewable energy investors is the Act on Renewable Energy Sources, which *inter alia* sets the subsidy schemes (i.e. green certificates, the auction system) supporting RES generation. There are also more specialized regulations focused on sectoral issues, like the Wind Farm Act. Acts of Parliament (statutes) are not the only source of law regulating the energy market in Poland. Technical aspects are usually regulated in secondary legislation such as regulations, which are issued by government bodies. In the case of renewable energy, the issuing body is usually the Ministry of Climate and Environment or the Minister of Infrastructure.

The most important statutes regarding renewable energy sources include:

- Act of April 10, 1997 – Energy Law (Journal of Laws of 2022, item 1385, as amended)<sup>2</sup> and executive regulations to this Act,
- Act of February 20, 2015 on renewable energy sources (Journal of Laws of 2023, item 1436, as amended)<sup>3</sup> and executive regulations to this Act,
- Act of 20 May 2016 on investments in wind farms (Journal of Laws of 2021, item 724, as amended)<sup>4</sup>,
- Act of August 25, 2006 on biocomponents and liquid biofuels (Journal of Laws of 2022, item 403, as amended)<sup>5</sup>,
- Act of November 21, 2008 on supporting thermal modernization and renovations and on the central register of emissivity of buildings (Journal of Laws of 2022, item 438, as amended)<sup>6</sup>,
- Act of April 27, 2001 – Environmental Protection Law (Journal of Laws of 2022, item 2556, as amended)<sup>7</sup>,
- Act of 3 October 2008 on the provision of information on the environment and its protection, public participation in environmental protection and environmental impact assessments (Journal of Laws of 2023, item 1094, as amended)<sup>8</sup>,

<sup>2</sup> <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=wdu19970540348>.

<sup>3</sup> <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=wdu20150000478>.

<sup>4</sup> <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20160000961>.

<sup>5</sup> <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=wdu20061691199>.

<sup>6</sup> <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=wdu20082231459>.

<sup>7</sup> <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=wdu20010620627>.

<sup>8</sup> <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=wdu20081991227>.

- Act of July 7, 1994 – Construction Law (Journal of Laws of 2023, item 682, as amended)<sup>9</sup>.

At the end of May 2023, the total installed capacity of RES in Poland amounted to 24 951 MW and accounted for over 40% of the total installed capacity in the entire energy sector. In 2022 over 5.5 GW of RES capacity was added to the national power grid. In 2023 so far, Poland added around 2.3 GW of RES capacity. The dominant technology is solar photovoltaic with the total capacity of 13 926 GW (including more than 1.27 million self-consumers with micro-installations (<50 kW) with a capacity of 9 630 GW). The second dynamically developing clean energy technology in Poland is onshore wind energy with an installed capacity exceeding 8.71 GW as of May 2023.

**2. If answer to the question 1 is yes, in which cases is a license required? Are there other cases in which a simple communication to the public authority or other kind of regulation is required?**

Any business activity concerning the production of energy in renewable energy source plants is subject to licensing, with the exception of micro or small plants and plants producing electricity exclusively from agricultural biogas, including cogeneration, and exclusively from bioliquids. As stipulated by the Energy Law, the authority to grant licenses has been conferred to the President of the Energy Regulation Office (*Urząd Regulacji Energetyki*).

Pursuant to the provisions of the RES Act, the obligation to obtain a license does not apply to the generation of electricity:

1) in a micro-installation, which is a RES installation with a total installed electrical capacity of not more than 50 kW, connected to a power grid with a rated voltage lower than 110 kV or with a combined heat output of not more than 150 kW, in which the total installed electrical capacity is not more than 50 kW;

2) in a small installation, which is the RES installation with a total installed electrical capacity of more than 50 kW and not more than 1 MW, connected to a power grid with a rated voltage lower than 110 kV, or with a combined heat capacity of more than 150 kW and less than 3 MW, in which the total installed electrical capacity is more than 50 kW and not more than 1 MW;

3) exclusively from agricultural biogas, including cogeneration (simultaneous generation of heat and electricity or mechanical energy during the same technological process);

4) exclusively from bioliquids.

It is worth noting that according to the amendment to the Renewable Energy Sources Act (so-called “UC99”), which is being currently proceeded in the Parliament, the above-mentioned threshold for solar photovoltaic installation will

<sup>9</sup> <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=wdu19940890414>.

be increased to a capacity of up to 150 kW. Such a solution will substantially cut the regulatory burden on small investors.

The necessary formal requirements in the RES project development include several major stages: environmental permitting and planning (zoning) arrangements, ancillary permits, construction permit(s), and permit(s) for use. The permit-granting process varies to a certain extent depending on technology:

#### **Large-scale solar photovoltaic projects**

The developer has to obtain the following permits:

- Grid connection permit
- Environmental permit
- Spatial-planning permit
- Building permit
- Concession (optional)

If a developer is going to build a solar PV farm in Poland, it is necessary to obtain the information about the grid connection capacity from the local Distribution System Operator (DSO). Usually, such data is available on DSO's website. Secondly, the developer has to verify whether it is located in an area covered by a form of environmental protection, in accordance with the dedicated acts and regulations. Such a decision is issued by the local administration body, like a commune head, mayor or city president, after consultation with the Regional Director for Environmental Protection. Subsequently, the developer has to obtain a zoning permit – the investment has to comply with the local spatial plan. The next step is to obtain a building permit. If the installed capacity of the installation exceeds 1 MW, obtaining the concession in accordance with the Energy Law is mandatory. If the capacity of the installation is lower than or equal to 1 MW, then it is necessary to register in the *Register of small-scale energy generators* (except for micro-installations).

#### **Onshore wind energy**

The developer must obtain the following permits:

- Grid connection permit
- Environmental permit
- Spatial-planning permit
- Building permit
- Concession
- Provide an adequate distance between households
- Mark the turbine as an aviation obstacle

If a developer intends to build an onshore wind farm, first, similarly like in large-scale solar PV projects, it is necessary to obtain the information about the local grid connection capacity. Then, the developer has to make sure that the distance between the wind turbine and households complies with the national law. Furthermore, the developer has to obtain the environmental, building and zoning permit, concession, and marking of the wind turbine as an aviation obstacle.

### **3. What are the necessary requirements to obtain a license? Which public authorities are authorized to grant licenses? Which projects require an EIA?**

The obligation to obtain a licence (concession) for energy generation depends on the capacity of power plant. RES power plants are subject to the concession if they exceed the installed capacity threshold – in accordance with Article 3 of the Act on RES, only micro and small installations do not have to obtain the concessions. If the capacity of such installation does not exceed 1 MW – it is enough to enter it into the *Register of small-scale energy generators*. If the installed capacity exceeds the 1 MW threshold, then obtaining the concession (license) is mandatory.

The authority issuing concessions for energy generation in renewable energy installations is the President of the Energy Regulatory Office.

According to Art. 33 sect. 1 of the Energy Law, the President of the Energy Regulatory Office grants a license to an applicant who:

1) has their registered office or place of residence in the territory of a Member State of the European Union, the Swiss Confederation, a Member State of the European Free Trade Association (EFTA) – party to the Agreement on the European Economic Area or Turkey;

2) has financial resources in the amount that guarantees proper performance of the activity or is able to document the possibility of obtaining them;

3) has the technical capabilities to ensure proper performance of the activity;

4) ensures the employment of persons with appropriate professional qualifications referred to in Art. 54 of the RES Act;

5) obtained a decision on land development and development conditions or a decision on determining the location of an investment in the construction of a nuclear power facility, referred to in the Act of 29 June 2011 on the preparation and implementation of investments in the field of nuclear power facilities and accompanying investments;

6) is not in arrears with the payment of taxes constituting the income of the state budget, with the exception of cases where he obtained the exemption provided for by law, deferral, distribution into instalments of tax arrears or tax or withholding the execution of the decision of the competent tax authority in its entirety.

### **Environmental Impact Assessment (EIA)**

One of the critical stages in the permitting procedure is obtaining a decision on environmental conditions (ED). The majority of the renewable energy projects require it. It is necessary for any investment that may affect the environment (either always or potentially). The obligation to obtain ED covers all wind farms. However, regarding photovoltaics, the obligation applies to farms with an area of more than 0.5 hectare in protected areas and more than 1 hectare in other areas. The ED is issued mostly by the mayor of a municipality (Polish: *prezydent, burmistrz, wójt*) or the Regional Director of Environmental Protection. The administrative body issues the decision based on an analysis of the environmental

impact of the installation. The ED may be used for six years, with the possibility of extension to 10 years. Within this period, the investor shall apply for an investment decision (building permit).

The environmental permitting process is based on the Environmental Impact Assessment Directive. The provisions of the Directive are implemented by the Regulation of the Council of Ministers of September 10, 2019 on projects that may have a significant impact on the environment (Journal of Laws, item 1839, as amended)<sup>10</sup>. According to this regulation the list of RES that require mandatory EIA includes the following installations:

- para 2 sect. 1 point 5 – using wind energy to generate electricity
  - a) with a total power plant nominal capacity of not less than 100 MW,
  - b) located in the maritime areas of the Republic of Poland,
- para 3 sect. 1 point 5 – hydro power plants,
- para 3 sect. 1 point 6 – using wind energy to generate electricity, other than those listed in para 2 sect. 1 point 5:
  - a) located in areas covered by the forms of nature protection referred to in Art. 6 sect. 1 points 1–5, 8 and 9 of the Act of 16 April 2004 on nature protection (Journal of Laws of 2018, items 1614, 2244 and 2340 and of 2019, items 1696 and 1815), excluding installations intended solely for powering road and railway signs, devices controlling or monitoring road or railway traffic, navigation signs, lighting devices, billboards and advertising boards,
  - b) with a total height of not less than 30 m,
- para 3 sect. 1 point 54 – industrial development, including development with photovoltaic systems, or storage, along with the accompanying infrastructure, with a building area of not less than:
  - a) 0.5 ha in areas covered by forms of nature protection referred to in Art. 6 sect. 1 points 1–5, 8 and 9 of the Act of 16 April 2004 on nature conservation or in the buffer zone of the forms of nature protection referred to in Art. 6 sect. 1 points 1–3 of this Act,
  - b) 1 ha in areas other than those listed in point (a);

In addition, depending on the parameters of the RES installation, there are also other projects that may qualify under other provisions of the EIA regulation, in particular:

geothermal:

- para 3 section 1 point 44 lit. c and d – prospecting for and appraisal of mineral deposits using the borehole method with a depth of more than 1,000 m in water intake protection zones, in inland water reservoir protection areas, in areas covered by forms of nature protection and buffer zones, and 5,000 m outside these zones and areas;

<sup>10</sup> <https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20190001839>.

biogas plants:

- para 2 sect. 1 point 47 – installations for processing within the meaning of Art. 3 sect. 1 point 21 of the Act of 14 December 2012 on waste other than those mentioned in points 41 and 46, including landfills other than those mentioned in point 41, which can accept waste in an amount of not less than 10 t per day or with a total capacity not less than 25,000 t, excluding installations for the production of agricultural biogas within the meaning of Art. 2 point 2 of the Act of February 20, 2015 on renewable energy sources (Journal of Laws of 2018, item 2389, as amended),
  - para 3 sect. 1 point 47 – installations for the production of fuels from plant products, excluding installations for the production of agricultural biogas within the meaning of Art. 2 point 2 of the Act of 20 February 2015 on renewable energy sources, with an installed electrical capacity of not more than 0.5 MW or producing an equivalent amount of agricultural biogas used for purposes other than electricity production,
  - para 3 sect. 1 point 54 – industrial buildings, including buildings with photovoltaic systems, or warehouses, together with the accompanying infrastructure, with a building area of not less than:
    - a) 0.5 ha in areas covered by forms of nature protection referred to in Art. 6 sect. 1 points 1–5, 8 and 9 of the Act of 16 April 2004 on nature conservation or in the buffer zone of the forms of nature protection referred to in Art. 6 sect. 1 points 1–3 of this Act,
    - b) 1 ha in areas other than those listed in point (a); and,
  - para 3 sect. 1 point 82 – installations related to processing within the meaning of Art. 3 sect. 1 point 21 of the Act of 14 December 2012 on waste, other than those listed in para 2 sect. 1 points 41–47, excluding installations for the production of agricultural biogas within the meaning of Art. 2 point 2 of the Act of 20 February 2015 on renewable energy sources, with an installed electric power of not more than 0.5 MW or producing an equivalent amount of agricultural biogas used for purposes other than electricity production, as well as places for surface retention of waste and recultivation landfills;
- hydro power plants:
- para 2 sect. 1 point 35 – dams or other devices intended for retention and permanent retention (collection) of not less than 10 million m<sup>3</sup> of new or additional water mass,
  - para 2 sect. 1 point 36 – damming structures with a water damming height of not less than 5 m,
  - para 3 sect. 1 point 69 – damming structures other than those listed in para 2 section 1 points 35 and 36:
    - a) in areas covered by the forms of nature protection referred to in Art. 6 sect. 1 points 1–5, 8 and 9 of the Act of 16 April 2004 on nature conservation, or in the buffer zone of the forms of nature protection referred to in Art. 6 sect.

1 points 1–3 of this Act, with the exception of damming structures with a water damming height of less than 1 m, implemented on the basis of a protection plan, plan of protective tasks or protective tasks established for a given form of nature protection,

b) if damming concerns natural watercourses on which there are no damming structures,

c) if there is another damming structure within a radius of less than 5 km on the same watercourse or a watercourse connected to it, d) with a water damming height of not less than 1 m.

#### **4. Are there any protected sites (e.g. World Heritage Sites, protected sites) where construction of such implants is not allowed?**

All development proposals that could lead to projects which may affect the Outstanding Universal Value of a World Heritage Site, including renewable energy projects, should be submitted by States Parties to the World Heritage Committee via the Secretariat to the Convention. Proposals should be submitted before a decision on their funding, permitting or implementation is taken by the State Party, in line with Paragraph 172 of the Operational Guidelines.

The State Party submits Terms of Reference, Scoping Reports and Draft Environmental Reports for review to the UNESCO World Heritage Centre. The Draft Environmental Report must include a separate chapter on the proposal's likely impacts on the Outstanding Universal Value of the particular site, also in the case of construction and operation of renewable energy power plants.

In the view of the above, proposals for the construction of plants which may adversely affect a natural World Heritage Site are not prohibited *per se*, but must be subject to a comprehensive and rigorous Environmental Assessment process prior to considering whether to grant consents and licenses.

Regarding the highest level of nature conservation sites in Poland – national parks and nature reserves, national regulations on investment processes and nature protection apply to the construction of renewable energy power plants. Constructions that are not related with a need of these sites, including RES power plants, are forbidden. Under certain circumstances, the nature conservation authority (Minister of Environment in national parks and General Director for Environmental Protection or regional director for environment protection in nature reserves), may grant a derogation for the construction, only if a project is evaluated and found as not causing a negative impact on nature resources as well as landscape. Nature protection act defines that derogation may be considered for the purpose of: (1) nature protection, to carry out scientific research, for educational, cultural, tourist, recreational, sports or religious cult purposes – if it will not have a negative impact on the nature of the national park or (2) public-purpose linear investments or public-purpose investments in the field of communications – only if there are no alternatives and nature compensation measures are



applicable. This means regular RES power plants will be very rarely allowed to be constructed in national parks and nature reserves.

In Poland, there are a number of forms of nature protection with different levels of protection. Most of them have prohibitions preventing the implementation of various types of investments, including investments related to the production of energy from renewable sources. However, these are prohibitions of a general nature and apply to various investments. In some cases, the issue of the location of the investment may depend on the results of the environmental impact assessment and the demonstration of no negative impact on the natural and landscape values of a given protected area. Only wind farms with a capacity of more than 50 kW are a special case, with regard to which additional, special restrictions apply, as specified in the Act on investments in wind farms. According to Art. 4c of this Act, it is forbidden to locate wind farms in the areas of national parks, nature reserves, landscape parks and Natura 2000 areas, and additionally, a protective buffer has been established for the construction of a wind farm – in the case of a national park, the distance of the wind farm must be equal to or greater than ten times the total height of the wind farm, and in the case of a nature reserve, the wind farm may be located at a distance of not less than 500 meters.

#### **5. Has the Renewable Energy Directive 2018/2001/EU RED II been implemented in your country? if so, how?**

Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (RED II) has so far been partially implemented into the Polish legal system, e.g. by the Act of October 29, 2021 amending the Act on renewable energy sources and certain other acts (Journal of Laws of 2021, item 2376, as amended), which aims at the implementation of Art. 2 point 15 and Art. 21 sect. 1 and 4–6 of the Directive RED II).

Legislative work is currently underway to further transpose the provisions of the RED II Directive into the Polish legal system. The ongoing “UC99” amendment to the Act on Renewable Energy Sources (*druk sejmowy* [Sejm paper] 3279)<sup>11</sup> includes several legal provisions, which fulfil the RED II implementation in scope of biomethane, energy clusters, guarantees of origin and National Contact Point. This amendment is at an advanced stage of the legislative process – in June 2023 it was adopted by the Sejm (lower house of the Polish Parliament) and in July by the Senate (higher house of the Parliament). Currently it is waiting for the final adoption by the Sejm.

In addition, the draft act amending the Act on biocomponents and liquid biofuels and some other acts (UC110) is currently being processed in the government process. It will implement the RED II directive with regard to the use of low-emission fuels and electricity in transport.

<sup>11</sup> <https://www.sejm.gov.pl/sejm9.nsf/PrzebiegProc.xsp?nr=3279>.

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