

TETIANA KHARYTONOVA

ORCID ID: 0000-0002-7998-5089

**CHAPTER 3. LEGAL SUPPORT
FOR HYDROPOWER IN UKRAINE**

3.1. The state of legislative support for small hydropower in Ukraine

Human is constantly using various natural resources as a source of food, materials for the construction of residential and industrial buildings, fuel and, among other things, energy. Of particular importance in this context are inexhaustible, self-renewing and easily accessible sources of energy production, among which water resources occupy a prominent place.

The use of water as a source of energy has many obvious advantages, primarily related to the peculiarity of rivers as a natural resource. Thus, compared to solar or wind power, for example, hydropower generally does not depend on the time of day or season. In addition, the energy produced in this way has a relatively low cost compared to the efficiency achieved. For this reason, hydropower has long been one of the most widely recognized and proven ways of using water not only as a natural resource, but also as a tool for meeting the energy and economic needs of people and society.

Hydropower, being one of the oldest sources of low-carbon energy¹, today provides almost half of its global output. The contribution of hydropower is 55% higher than nuclear power and greater than all other renewables combined, including wind, solar, bio– and geothermal. Over the past 20 years, total hydropower capacity has increased by 70% globally, but its share of total generation has remained stable due to the growth of wind, solar and other types of energy².

Ukraine, as a modern European country that is confidently moving towards building its own energy-independent system and the global transition to renewable energy sources, has significant potential for the development of hydropower relations. At the same time, it is worth considering the fact that not all hydropower installations and facilities are considered by Ukrainian legislation to be capable of generating renewable

¹ Ritchie H., Roser M., Rosado P. Renewable Energy. *Our World in Data*. 2022. URL: <https://ourworldindata.org/renewable-energy#citation> (дата звернення: 01.07.2023 року)

² Hydropower Special Market Report. *IEA*. 2021. URL: <https://www.iea.org/reports/hydropower-special-market-report/executive-summary>(дата звернення: 01.07.2023 року)

energy. These include only micro, mini– and small hydropower plants³ (*Note – for ease of presentation, the general unifying category of “small hydropower” will be used*).

The rapid development of small-scale hydropower in Ukraine began in the early twentieth century, with the first hydroelectric power plant built in 1912 on the Southern Bug River in the town of Tyvriv. Subsequently, in the 1920s, due to large-scale electrification, in particular in the industrial and agricultural sectors, there was a significant increase in the capacity of small hydropower, the number of which by the end of 1929 was more than 150. This trend continued until the early 1950s, when the number of small hydropower plants reached 956. Later, with the development of powerful hydropower construction of large hydropower plants, small hydropower began to decline and a significant number of small hydropower plants were abandoned, dam structures were destroyed, dams were draining, shields were deformed, and lifting mechanisms became unusable. Derivation channels were overgrown with forests, filled in or built up, reservoirs were silted up, and dams were used only as bridge crossings⁴. Currently, there are approximately 170 small hydropower facilities in Ukraine⁵, which indicates a gradual renewal of interest in the development of this important renewable energy sector.

The prospects of small hydropower as part of the modern renewable energy complex are natural given the volume of water resources available in Ukraine. There are more than 63 thousand small rivers and watercourses in Ukraine with a total length of 135.8 thousand km, of which about 60 thousand (95%) are very small (less than 10 km long), with a total length of 112 thousand km⁶, about 3 thousand – more than 10 km long⁷.

The largest technical potential of hydropower resources of small rivers is concentrated in the Carpathian region (76%). The second largest hydropower potential is in the Right Bank Dnipro hydrological zone (13%).

³ Про альтернативні джерела енергії: Закон України від 20 лютого 2003 року. *Відомості Верховної Ради України*. 2003. № 24. Ст. 155.

⁴ Гідроенергетика: курс лекцій: навчальний посібник для студентів спеціальності 141 “Електроенергетика, електротехніка та електромеханіка” / уклад. : В. І. Будько, П. Ф. Васько, С. Т. Пазич. Київ : КПІ ім Ігоря Сікорського, 2023. С. 16, 18, 19.

⁵ Об’єкти ВДЕ. *Energo.ua*. URL: <https://www.energo.ua/ua/assets> (дата звернення: 01.07.2023 року)

⁶ Мала гідроенергетика України: у 2-х томах. Том I. Аналітичний огляд / В. Вовчак, О. Тесленко, О. Самченко. Київ: Інститут проблем екології та енергозбереження, 2018. С. 23.

⁷ Екологи, науковці та управлінці шукають шляхи для збереження природних ландшафтів і екологізації гідроенергетики. *ПРАТ “Укргідроенерго”*. URL: <https://uhe.gov.ua/filiyi> (дата звернення: 01.07.2023 року)

On the left bank of the country, the potential is 7%, and the Western and Polissya hydrological zones are considered to be unpromising areas for small hydropower development (4% in total)⁸. At the same time, despite the natural wealth of the water sector, it should be noted that not all rivers and watercourses can be used for hydropower (for example, water bodies subject to special state protection, including those of the nature reserve fund, cannot be used for such purposes)⁹.

The abundance of water resources outlined above and, among other things, the technical capabilities already available, put hydropower at the forefront of the renewable energy system and lay a solid foundation for the development of this sector. Thus, hydropower is a relatively environmentally friendly source, given the minimal greenhouse gas emissions from its production, and one of the safest ways to generate energy¹⁰. In addition, the use of small river energy helps to save fuel and energy resources, decentralize the overall energy system and solve a number of problems in the energy supply of remote and hard-to-reach rural areas¹¹.

At the same time, as with any interference with the natural order of river functioning, the construction of hydropower plants to generate energy from water resources is inextricably linked to a number of risks and abuses arising, among other things, from the imperfect legislative framework for alternative energy and hydropower relations. This can lead to water level fluctuations, a decrease in the number of fish and other living organisms, flooding and erosion of large areas of land, and blocking of migration routes to spawning grounds¹², that causes destroying of fauna of water pond¹³.

⁸ Бриль А. О., Васько П. Ф., Мороз А. В. Технічний потенціал гідроенергетичних ресурсів малих річок України з урахуванням природоохоронних обмежень. *Гідроенергетика України*. 2019. № 3-4. С. 50.

⁹ Чумаченко І. Є. Особливості правового режиму водних об'єктів, що використовуються для потреб гідроенергетики. *Актуальні проблеми вітчизняної юриспруденції*. 2021. № 3. С. 105.

¹⁰ Ritchie H. What are the safest and cleanest sources of energy? *Our World in Data*. 2020. URL: <https://ourworldindata.org/safest-sources-of-energy> (дата звернення: 01.07.2023 року)

¹¹ Платонова Є. О. Правові аспекти розвитку малої гідроенергетики України в контексті програмного забезпечення. *Правове регулювання суспільних відносин: актуальні проблеми та вимоги сьогодення* : матеріали Міжнародної науково-практичної конференції (Запоріжжя, 23-24.07.2021 р.). Запоріжжя: Запорізька міська громадська організація "Істина", 2021. С. 48–51.

¹² Караханян К. М. Історія становлення та розвитку гідроенергетики: еколого-економічний аспект. *Актуальні проблеми розвитку науки, освіти та суспільства*: збірник тез доповідей міжнар. наук.-практ. конф. (Полтава, 23.07.2021 р.). Полтава: ЦФЕНД, 2021. С. 24–25.

Thus, there is a clear need to improve the existing one and develop a new comprehensive legal mechanism for the functioning and development of hydropower relations, which would take into account, on the one hand, the possible energy and economic potential of water energy as a renewable resource, and, on the other hand, environmental requirements and the need to preserve and protect the natural biodiversity of rivers.

One of the first legislative acts related to hydropower was the Law of Ukraine “On Environmental Protection” of 25 June 1991, which not only established the legal and social framework for environmental protection, but also provided for the provision of tax, credit and other benefits to enterprises, institutions and organizations, as well as individuals, when they implement low-waste, energy and resource-saving technologies and non-traditional energy sources, among other economic measures to ensure its protection¹⁴. Similar benefits were provided for by the Law of Ukraine “On Energy Saving” of 01 July 1994 (expired on 13.11.2021), which encouraged energy production using renewable and non-traditional sources¹⁵. Thus, these legislative acts have laid the foundation for a more global development and legal incentives for alternative energy as an environmentally friendly way of generating energy.

The Water Code of Ukraine of 6 June 1995 is a comprehensive legislative act regulating social relations in the field of water resources use. Among other things, the Code defines the basic concepts and rules in the field of water use and protection, and establishes the specifics of using water bodies for industrial and hydropower needs¹⁶. It was the Water Code of Ukraine that became the basis for further development of specialized hydropower legislation and laid down guidelines for further development of hydropower relations, taking into account energy, environmental, economic, social and other factors.

Legislative acts adopted in the period 1991-1999 demonstrate the growing interest in the field of non-traditional energy sources, in particular hydropower, and the state’s attempts to stimulate the development of hydropower relations as a promising sector of alternative energy. At the same time, the relevant legislation was characterized by a high degree of

¹³ Караханян К. М. Правові засади розвитку гідроенергетики в контексті сталого розвитку України. *International scientific journal: “Internauka”*. Series: “Juridical sciences”. 2021. № 7 (41). С. 38.

¹⁴ Про охорону навколишнього природного середовища: Закон України від 25 червня 1991 року. *Відомості Верховної Ради України*. 1991. № 41. Ст. 546.

¹⁵ Про енергозбереження: Закон України від 1 липня 1994 року. *Відомості Верховної Ради України*. 1994. № 30. Ст. 283 (втратив чинність)

¹⁶ Водний кодекс України від 6 червня 1995 року. *Відомості Верховної Ради України*. 1995. № 24. Ст. 189.

abstraction and generalization, and the declarative nature of its individual provisions, which also slowed down the development of hydropower and the renewable energy sector.

At the stage of forming legislation on the use of alternative energy sources (2000-2011), there was a gradual increase in legislative attention to the issue of small hydropower and the renewable energy sector in general. Thus, the Verkhovna Rada of Ukraine approved the Concept for the Development of the Water Sector of Ukraine dated 14 January 2000, which stipulates the need to rationalize the use of water resources through, inter alia, modernization and reconstruction of existing hydroelectric power plants, introduction of new water-saving technologies, commissioning of new highly maneuverable capacities, restoration and development of small hydropower¹⁷. Separate provisions on the status and uses of the water fund were envisaged in the Land Code of Ukraine of 25 October 2001, which included in the lands of this purpose those occupied by hydrotechnical and other water management structures and canals, as well as lands allocated for their right-of-way¹⁸.

Another international act relating to the rational use of natural resources, including water, and enshrining the need for comprehensive compliance with environmental standards was the Framework Convention on the Protection and Sustainable Development of the Carpathians (signed on 22 May 2003 in Kyiv and ratified by the Law of Ukraine of 7 April 2004)¹⁹. The provisions of this Convention, to which Ukraine is also a party, are aimed at protecting the Carpathians as a unique natural treasure, including in terms of sustainable use of water resources, implementation of policies and plans based on an integrated approach to river basin management to prevent, manage and control pollution and floods, reduce fragmentation of aquatic habitats, etc.

An important step for the development of the national renewable energy sector was the adoption of the specialized Law of Ukraine “On Alternative Energy Sources”, which provides, among other things, for the categories of hydropower facilities that can be used to generate renewable energy and incentives for its producers. Such legislative attention to the issue under study clearly indicates a certain interest of the state in strengthening the

¹⁷ Про Концепцію розвитку водного господарства України: постанова Верховної Ради України від 14 січня 2000 року № 1390-XIV. URL: <https://zakon.rada.gov.ua/laws/show/1390-14#Text> (дата звернення: 01.07.2023 року)

¹⁸ Земельний кодекс України від 25 жовтня 2001 року. *Відомості Верховної Ради України*. 2002. № 3-4. Ст. 27.

¹⁹ Про ратифікацію Рамкової конвенції про охорону та сталий розвиток Карпат: Закон України від 07.04.2004 р. № 1672-IV. URL: <https://zakon.rada.gov.ua/laws/show/1672-15#Text> (дата звернення: 01.07.2023 року)

alternative energy sector, including by stimulating the development of small hydropower.

During the period under review, a number of environmental regulations aimed at protecting the environment were adopted at the national level, including the Laws of Ukraine “On Land Protection”²⁰, “On State Control over the Use and Protection of Land”²¹, “On the Environmental Network of Ukraine”²². These regulations establish the limits of interference with the environment, impose obligations to ensure compliance with regulations in the field of land protection and use, prevent land pollution and soil fertility, deterioration of flora and fauna, water and other natural resources, including in the location, design, construction, reconstruction and operation of water management facilities. Similar provisions were reflected in the National Programme for the Development of the Fishery Industry of Ukraine for the period up to 2010, approved by the Law of Ukraine of 19 February 2004²³, which states the need to protect fish and other aquatic living resources, including from the harmful effects of using the water fund for hydropower needs.

Certain provisions relating to the possibility of using alternative energy for heat generation are also contained in the Law of Ukraine “On Heat Supply” dated 02 June 2005, which sets out the priority development of the technology of combined heat and power generation (cogeneration) and the use of alternative energy sources, non-traditional and renewable energy sources as the main principles of state policy in the field of heat supply. In addition, it is envisaged to establish a reduced tariff for business entities that produce heat energy at facilities using alternative sources²⁴.

In order to further develop legislation on small hydropower, the Law of Ukraine “On Energy Lands and the Legal Regime of Special Zones of Energy Facilities” was adopted, which details the provisions of previously adopted regulations on the use of land and other natural resources for energy needs and includes land plots provided for the location, construction and operation of facilities for the production of electricity and heat,

²⁰ Про охорону земель: Закон України від 19 червня 2003 року. *Відомості Верховної Ради України*. 2003. № 39. Ст. 349.

²¹ Про державний контроль за використанням та охороною земель: Закон України від 19 червня 2003 року. *Відомості Верховної Ради України*. 2003. № 39. Ст. 349.

²² Про екологічну мережу України: Закон України від 24 червня 2004 року. *Відомості Верховної Ради України*. 2004. № 45. Ст. 502.

²³ Про Загальнодержавну програму розвитку рибного господарства України на період до 2010 року: Закон України від 19 лютого.2004 року. *Відомості Верховної Ради України*. 2004. № 22. Ст. 313.

²⁴ Про теплопостачання: Закон України від 2 червня 2005 року. *Офіційний вісник України*. 2005. № 27. Ст. 1532.

including hydroelectric power plants and pumped storage facilities, as well as land plots for them²⁵.

The period of 2011–2017 was characterized by a certain reassessment of the content and trends of legislation directly or indirectly related to alternative and hydropower issues in terms of the need not only to increase energy production from renewable sources, but also to establish the obligation to comply with environmental requirements by providing for restrictions and prohibitions on unjustified anthropogenic impact on natural resources. In addition, at this stage of alternative energy development, a large number of programme and strategic legislative acts have been adopted to address global strategic issues in the energy sector, including through the development of hydropower relations.

The Resolution of the Cabinet of Ministers of Ukraine of 12 September 2011 approved the State Programme for the Development of National Production, which defines hydropower as the most technologically advanced method of electricity generation, which has a guaranteed and predictable energy resource, and one of the objectives of the programme is to reconstruct and develop hydropower, including small hydropower on small rivers to meet local energy needs and protect adjacent areas from floods²⁶. Similar goals were envisaged by the National Target Programme for the Development of Water Management and Environmental Rehabilitation of the Dnipro River Basin for the period up to 2021, which includes the construction, reconstruction and overhaul of hydraulic structures as one of the measures to be implemented²⁷.

Provisions aimed at protecting the water fund of Ukraine and its biological diversity from harmful external influences were also contained in the State Target Economic Programme for Fisheries Development for 2012–2016, approved by the Cabinet of Ministers of Ukraine on 23 November 2011²⁸, and the List of Activities and Objects of Increased Environmental Hazard approved by the Cabinet of Ministers of Ukraine

²⁵ Про землі енергетики та правовий режим спеціальних зон енергетичних об'єктів: Закон України від 09 липня 2010 року. *Відомості Верховної Ради України*. 2011. № 1. Ст. 1.

²⁶ Про затвердження Державної програми розвитку внутрішнього виробництва: постанова Кабінету Міністрів України від 12 вересня 2011 року № 1130. *Офіційний вісник України*. 2011. № 86. Ст. 3139.

²⁷ Про затвердження Загальнодержавної цільової програми розвитку водного господарства та екологічного оздоровлення басейну річки Дніпро на період до 2021 року: Закон України від 24 травня 2012 року. *Відомості Верховної Ради*. 2013. № 17. Ст. 146.

²⁸ Про затвердження Державної цільової економічної програми розвитку рибного господарства на 2012-2016 роки: постанова Кабінету Міністрів України від 23 листопада 2011 року № 1245. *Урядовий кур'єр*. 2011. № 243.

dated 28 August 2013 (expired on 28.02.2019)²⁹. Thus, in accordance with the provisions of the said list, the operation of hydropower plants on rivers, regardless of their capacity (including small hydropower plants) and new construction, reconstruction of major hydraulic structures of all types posed an increased environmental hazard to the environment, which demonstrates the legislator's attention not only to the issues of increasing the volume of energy produced by renewable energy sources, but also to the need to comply with environmental standards in the implementation of these activities.

One of the strategic regulatory acts related to the development of alternative energy sources, including small hydropower, is the National Renewable Energy Action Plan for the period up to 2020, approved by the Cabinet of Ministers of Ukraine on 1 October 2014. The provisions of this plan state the great potential for the use of small rivers, in particular in the western regions, which can become the basis for saving fuel and energy resources, decentralization of the overall energy system, and, in general, the production of a significant amount of energy through the modernization of existing facilities, restoration of previously operating small hydropower plants, construction and commissioning of new hydropower generating facilities³⁰. The task of increasing Ukraine's energy independence was also enshrined in the Sustainable Development Strategy "Ukraine – 2020", which set the main task in this area as ensuring energy security and transition to energy efficient and energy-saving use and consumption of energy resources with the introduction of innovative technologies, in particular through the implementation of projects using alternative energy sources³¹.

Approximation to European standards also required the adoption of a number of environmental and environmental regulations, in particular the provisions of the Paris Climate Agreement of 12 December 2015³². That is why the Law of Ukraine of 14 July 2016³³ ratified this agreement and the Concept of Implementation of the State Policy on Climate Change for the

²⁹ Про затвердження переліку видів діяльності та об'єктів, що становлять підвищену екологічну небезпеку: постанова Кабінету Міністрів України від 28 серпня 2013 року № 808. *Урядовий кур'єр*. 2013. № 215. (*втрапила чинність*)

³⁰ Про Національний план дій з відновлюваної енергетики на період до 2020 року: розпорядження Кабінету Міністрів України від 1 жовтня 2014 року № 902-р. *Офіційний вісник України*. 2014. № 81. Ст. 2298.

³¹ Про Стратегію сталого розвитку "Україна – 2020": Указ Президента України від 12 січня 2015 року № 5/2015. *Офіційний вісник України*. 2015. № 4. Ст. 67.

³² Паризька угода від 12.12.2015 р. URL: https://zakon.rada.gov.ua/laws/show/995_161#Text (дата звернення: 01.07.2023 року)

³³ Про ратифікацію Паризької угоди: Закон України від 14 липня 2016 року. *Відомості Верховної Ради*. 2016. № 35. Ст. 595.

period up to 2030 was approved to implement its provisions, as well as other commitments to protect the environment and prevent negative climate change³⁴.

Another programme document specialized in hydropower is the Hydropower Development Programme for the period up to 2026, approved by the Cabinet of Ministers of Ukraine on 13 July 2016. The programme sets a rather ambitious goal – to ensure the energy security of the state through the effective development of hydropower with maximum use of cost-effective hydropower potential, improvement of management of hydropower facilities, enhancement of their safety, increase of regulatory maneuvering capacities of hydropower plants and pumped storage power plants to improve the stability and reliability of the integrated power system of Ukraine and its integration into the European energy system, reduction of the consumption of fossil fuels and the anthropogenic impact on the environment³⁵. At the same time, the analysis of the regulatory act allows us to state that its provisions mainly relate to the development of only “large hydropower”, and the small hydropower sector is mentioned indirectly, in the context of the analysis of existing hydropower capacities. The need to develop small hydropower is also not mentioned in the section “Action Plan for the Implementation of the Programme”. Given that small hydropower is an integral component of hydropower in general and has significant potential, such legislative gaps seem rather strange and need to be further developed and addressed.

The environmental legislation introduced and currently in force, in particular the Law of Ukraine “On Environmental Impact Assessment”, which places hydropower plants on rivers, regardless of capacity, in the second category of planned activities and facilities that may have a significant impact on the environment and are therefore subject to environmental impact assessment, also has a significant impact on the further development of hydropower³⁶. At the same time, despite the promise of such binding norms and their positive impact in terms of improving the level of environmental protection, practical experience shows that official environmental conclusions obtained in accordance with the legislative procedure do not guarantee the exhaustion of environmental issues. This is

³⁴ Про схвалення Концепції реалізації державної політики у сфері зміни клімату на період до 2030 року: розпорядження Кабінету Міністрів України від 7 грудня 2016 року № 932-р. *Офіційний вісник України*. 2016. № 99. Стор. 269. Ст. 3236.

³⁵ Про схвалення Програми розвитку гідроенергетики на період до 2026 року: розпорядження Кабінету Міністрів України від 13 липня 2016 року № 552-р. *Офіційний вісник України*. 2016. № 60. Ст. 2065.

³⁶ Про оцінку впливу на довкілля: Закон України від 23 травня 2017 року. *Офіційний вісник України*. 2017. № 50. Ст. 1549.

proved, in particular, by numerous court cases in which the results of the assessment are questioned. A certain devaluation of the importance of the environmental impact assessment mandatory for hydropower leads to a situation where the operation of existing and construction of new hydropower facilities is carried out in violation of a number of regulatory rules and obligations, which can lead to adverse environmental consequences.

One of the main strategic documents that currently determines the course of development of the entire national energy sector is the Energy Strategy of Ukraine until 2050, approved by the Cabinet of Ministers of Ukraine on 21 April 2023³⁷. According to the strategy, the main areas of development of the Ukrainian energy sector are, inter alia, the development of alternative energy sources (including increasing the hydropower potential to 9 GW), new products and innovative solutions in the energy sector, achieving the maximum level of climate neutrality, comprehensive integration with EU markets and efficient functioning of domestic markets³⁸.

At the same time, it should be noted that despite the legislative attention to the hydropower sector, the regulatory framework often has a high degree of generalization and inconsistency, and therefore even some promising mechanisms, without being supported by other stable and mutually consistent legislation, are not properly implemented, which may lead to demotivation of the hydropower sector and its gradual decline. Thus, the legislator approaches the issue of stimulating the development of small hydropower in a rather limited way, indirectly mentioning or not mentioning this promising alternative energy sector in programme and strategic documents.

At the same time, the experience of the early twentieth century proves the significant potential and attractiveness of the small hydropower sector, and thus it is important to simplify cumbersome and bureaucratic licensing procedures that increase and cause corruption risks in order to increase investment attractiveness, prevent capital outflows, and the oppression and decline of the small hydropower sector and alternative energy in general.

Small hydropower currently has one of the greatest prospects for development, as in the face of national security challenges and constant attacks on energy infrastructure, the construction and commissioning of

³⁷ Про схвалення Енергетичної стратегії України на період до 2050 року: розпорядження Кабінету Міністрів України від 21 квітня 2023 року № 373-р. *Офіційний вісник України*. 2023. № 47. Ст. 2575

³⁸ Енергетична стратегія. *Міністерство енергетики України*. URL: <https://www.mev.gov.ua/reforma/enerhetychna-stratehiya>(дата звернення: 01.07.2023 року)

large facilities, such as those of the damaged Kakhovka HPP, is obviously too complicated and time-consuming, and therefore irrelevant at this time.

3.2. Use of water bodies and land for hydropower purposes: legal features

Specifics of the legal regime of water bodies. The legal regime of water bodies used for hydropower purposes is characterized by a number of important elements.

1) *Ownership of water bodies.* All waters (water bodies) on the territory of Ukraine constitute its water fund. Thus, Article 6 of the Water Code of Ukraine stipulates that waters (water bodies) are exclusively the property of the Ukrainian people and are provided for use only. The Ukrainian people exercise ownership of water (water bodies) through the Verkhovna Rada of Ukraine, the Verkhovna Rada of the Autonomous Republic of Crimea and local councils. In view of the specifics of the hydropower sector of the economy, it should be noted that not all water bodies that make up the water fund of Ukraine can be used for hydropower purposes. Such water bodies may include surface waters (water bodies) of natural or artificial origin of both national and local significance. However, water bodies subject to special state protection, namely water bodies of the nature reserve fund, etc., cannot be used for hydropower purposes³⁹.

Water bodies used for hydropower are publicly owned (i.e., state or municipal). Although enclosed natural reservoirs (with a total area of up to 3 hectares) may be owned by individuals and legal entities, it is premature to talk about the possibility of building hydropower plants on them, in our opinion, given the current technology.

2) *The right to use water bodies for hydropower purposes.* The use of water bodies for hydropower purposes is carried out on the basis of special water use.

3) *Obligations of hydropower enterprises.* Hydropower enterprises are obliged to comply with the regimes of accumulation and use of water reserves, regimes of fluctuations in the level in the upper and lower reaches and water passage through hydraulic structures, taking into account the maintenance of the water level necessary to maintain the guaranteed dimensions of the ship's passage, uninterrupted navigation and passage of vessels through the navigation locks, as well as passage of fish to spawning areas in accordance with the designs of fish passage facilities in accordance

³⁹ Чумаченко І. Є. Особливості правового режиму водних об'єктів, що використовуються для потреб гідроенергетики. *Актуальні проблеми вітчизняної юриспруденції*. 2021. № 3. С. 103–108.

with the operating modes of artificial water bodies and water management systems established in accordance with the law, taking into account the water availability forecast, environmental requirements and interests of all water users. Hydropower enterprises operating hydroelectric power plants are obliged to inform the central executive body implementing the state policy in the field of inland water transport (the State Service of Maritime and Inland Water Transport and Shipping of Ukraine) in advance of the predicted temporary impossibility of ensuring the required water level⁴⁰. The main organizational and technical requirements for the operation of shipping hydraulic structures, the strict implementation of which ensures the uninterrupted and safe passage of the transport fleet and the reliable and safe operation of shipping locks, are established by the order of the Ministry of Transport “On approval of the Rules for the technical operation of shipping hydraulic structures” dated June 13, 2007⁴¹.

4) *The protection of water used for hydropower needs* is ensured by: rules and norms of protection, use or restriction of water use if necessary; a special regime for the use of water fund lands; water protection measures against pollution, clogging and depletion; measures to prevent violation of the hydrological and hydrogeological regime of waters; measures to prevent the harmful effects of water and accidents on water bodies and eliminate their consequences; measures to prevent the reduction of fish stocks and other objects of water fishing, the deterioration of the living conditions of wild animals⁴².

5) *A close interaction between the legal regime of water bodies used for hydropower needs and the legal regime of water fund lands.* Works related to the construction of hydrotechnical structures may be carried out on the lands of the water fund. Water protection zones are established along reservoirs with the aim of creating a favorable regime for water bodies, preventing their pollution, clogging and depletion, destruction of aquatic plants and animals, as well as reducing flow fluctuations. For the needs of operation and protection against pollution, damage and destruction of hydrotechnical and hydrometric structures, as well as reservoirs and dams on rivers, diversion lanes with a special mode of use are established.

⁴⁰ Водний кодекс України від 6 червня 1995 року. *Відомості Верховної Ради України*. 1995. № 24. Ст. 189.

⁴¹ Про затвердження Правил технічної експлуатації судноплавних гідротехнічних споруд: наказ Міністерства транспорту та зв'язку України від 13 червня 2007 року № 492. *Офіційний вісник України*. 2007. № 52. Ст. 2135.

⁴² Чумаченко І.Є. Особливості правового режиму водних об'єктів, що використовуються для потреб гідроенергетики. *Актуальні проблеми вітчизняної юриспруденції*. 2021. № 3. С. 103–108.

6) *Conducting of the principle of transboundary cooperation in the use of watercourses for the needs of hydropower* is extremely important to prevent the unsystematic and unlimited withdrawal of water, which leads not only to the depletion of water resources in general in the water basin, but also to their serious redistribution in space and time, directly or indirectly affecting interests of all states located in the international water basin.

7) *State administration in the field of use of water objects for hydropower.* The water legislation provides for the implementation of integrated management of water bodies in compliance with the basin principle on the basis of state, target, interstate and regional programs for the use and protection of water and reproduction of water resources, as well as river basin management plans.

8) *Legal responsibility.* Violation of water legislation entails disciplinary, administrative, civil or criminal liability. Water legislation provides for exemption from liability for violations of water legislation as a result of force majeure or military operations. Bringing offenders to justice does not release them from the obligation to compensate for damages caused by them as a result of violating water legislation, in the amounts and in the manner established by the legislation of Ukraine.

The formed legal regime of water bodies used for hydropower needs is quite balanced. However, at the same time, the institution of compensation for damage caused to water bodies as a result of accidents at hydropower enterprises needs improvement. The current Methodology for calculating the amount of compensation for damages caused to the state as a result of violation of the legislation on the protection and rational use of water resources, approved by the order of the Ministry of Natural Resources of Ukraine dated July 20, 2009⁴³, does not apply to such cases.

Specifics of the legal regime of lands under hydropower facilities. Peculiarities of the legal regime of lands on which hydropower facilities are located are formed under the influence of the legal regime of such immovable objects. Although the hydrotechnical structure and the land plot are, as a general rule, independent real estate objects, they remain connected by the principle of the unity of the fate of the real estate object, and also affect each other's legal regimes.

In view of this, the key features of the legal regime of hydropower lands include their connection with the legal status of hydrotechnical structures,

⁴³ Про затвердження Методики розрахунку розмірів відшкодування збитків, заподіяних державі внаслідок порушення законодавства про охорону і раціональне використання водних ресурсів: наказ Міністерства охорони навколишнього природного середовища України від 20 липня 2009 року. *Офіційний вісник України*. 2009. № 63. Ст. 2242.

some restrictions on turnover, the close connection of the hydropower facility not only with the land plot on which it is located, but also with the corresponding water object, the peculiarities of choosing a land plot for the subsequent placement of a hydropower facility on it.

Researching the specifics of the legal regime of lands under hydropower facilities, the doctrine operates on the idea of the so-called “dual legal regime”. However, with a more detailed analysis of the actual relations in this area, it can be found that in reality such a legal regime is more complex. It combines at least four legal elements:

1) *general* (the legal regime of the land plot as such – first of all, it is formed by land legislation). According to Art. 79 of the Land Code of Ukraine, a land plot is a part of the earth’s surface with established boundaries, a certain location, with defined rights in relation to it⁴⁴;

2) *special “water”* (legal regime of the land plot of the water fund – may include a number of requirements and restrictions aimed at protecting the water object. It is mainly provided by water legislation). According to Art. 4 of the Water Code of Ukraine, lands of the water fund include lands occupied, including hydrotechnical, other water management structures and canals, as well as lands allocated for diversion lanes for them⁴⁵;

3) *special “energy”* (the legal regime of the land plot under the energy facility – may provide for a number of requirements and restrictions aimed at the safe operation of the energy facility for people and the environment. It is mainly formed by land and environmental legislation). The special features of the energy sector include: a) orientation – ensuring the sustainable development of the energy sector of the national economy of Ukraine in combination with guaranteeing the state’s energy security and environmental protection; b) special object composition, i.e. objects for the placement or operation of which land is provided – energy objects; c) a non-exhaustive list of energy facilities; d) regulatory certainty in the special branch (energy) legislation of the procedure for acquiring rights to energy land; e) special procedure for the use and protection of energy lands⁴⁶.

The analyzed relations are regulated by the Law of Ukraine “On Energy Lands and the Legal Regime of Special Zones of Energy Objects”, but such regulation is not perfect. Thus, the land of energy-generating enterprises includes land plots provided for the location, construction and operation of

⁴⁴ Земельний кодекс України: прийнятий 25 жовтня 2001 року. *Відомості Верховної Ради України*. 2002. № 3–4. Ст. 27.

⁴⁵ Водний кодекс України від 6 червня 1995 року. *Відомості Верховної Ради України*. 1995. № 24. Ст. 189.

⁴⁶ Шматько Г. І. Специфіка правового режиму земель під об’єктами гідроенергетики в Україні. *Міжнародний науковий журнал “Інтернаука”*. Серія: “Юридичні науки”. 2021. № 7. С. 48–54.

facilities for the production of electric and thermal energy, in particular hydroelectric power plants and hydroaccumulation power plants. According to Art. 12 of the Law establishes regulatory zones for the protection of particularly important energy facilities – the prohibited zone of hydroelectric facilities and the controlled zone of hydroelectric facilities⁴⁷. The legal regime of these zones is regulated by the resolution of the Cabinet of Ministers of Ukraine “On approval of the Procedure for establishing a special protection regime in the territory of the prohibited zone and the controlled zone of hydroelectric facilities” dated March 31, 2004⁴⁸. This procedure defines the mechanism for establishing a special protection regime in the territory of the prohibited zone and the controlled zone of hydroelectric facilities, the conditions for access and movement of employees, outsiders, all types of transport in these zones, the import (export) of material values and cargo into the territory of these zones or beyond them, as well as the rights and duties of officials of ministries, other central and local executive bodies, who are responsible for establishing and ensuring the proper regime in the respective zones;

4) *special “alternative energy”* (legal regime of the land plot under the object of alternative energy). According to the Law of Ukraine “On Energy Lands and the Legal Regime of Special Zones of Energy Objects”, energy lands include land granted in accordance with the procedure established by law for ownership and use for the location, construction and operation of facilities for the production and transmission of electric and thermal energy, including alternative energy facilities. In this legislative act in Art. 14, it is determined that on the lands assigned to the category of lands defined by point “i” of Part 1 of Art. 19 of the Land Code of Ukraine (land for industry, transport, electronic communications, energy, defense and other purposes), alternative energy facilities that use renewable energy sources (including hydropower) can be located, regardless of the purpose of such land plots. The layering of legal regimes, which is observed during the formation of the legal regime of the land plot under hydropower facilities, has not yet been realized by the rule-maker and has not been crystallized in the legislation. That is why there are significant gaps in the legal regime of the respective land plots in practice. In this regard, there is a need for further doctrinal and

⁴⁷ Про землі енергетики та правовий режим спеціальних зон енергетичних об'єктів: Закон України від 09 липня 2010 року. *Відомості Верховної Ради України*. 2011. № 1. Ст. 1.

⁴⁸ Про затвердження Порядку встановлення особливого режиму охорони на території забороненої зони та контрольованої зони гідроелектротехнічних споруд: постанова Кабінету Міністрів України від 31 березня 2004 року. *Офіційний вісник України*. 2004. № 13. Ст. 900.

legislative elaboration of the proposed idea of the “hydropower quadriptych”⁴⁹.

3.3. Environmental and legal requirements for the safety of hydropower facilities

Acting as one of the most ecological and economical sources of obtaining electricity, hydropower nevertheless leads to negative changes in the surrounding natural environment, in particular, causes damage to agriculture, contributes to constant drops in water levels, a decrease in the number of fish and other living organisms, flooding and erosion of large areas, in including of agricultural lands, increases the regulation of river flow, as a result of which there is an overlap of migration routes to spawning grounds, which contributes to the partial or complete loss of biodiversity of the ichthyofauna of the regulated natural reservoir.

Taking into account the above, we note that the current legislation pays attention to the issue of environmentally friendly industries and comprehensive development of hydropower. However, a critical analysis of modern legislation, which is designed to ensure the environmental friendliness of hydropower, shows its fragmentary nature and the superiority of general norms that regulate the development of alternative energy as a whole. However, the study of the above-mentioned normative legal acts allows to develop a classification of environmental legal mechanisms, compliance with which will ensure safety for people and the environment when using hydropower facilities.

The first group includes **imperative prohibitions**, such as:

1. *It is prohibited to build reservoirs in the river basin with a total volume that exceeds the flow of the given river in an estimated low-water year, which is observed once every twenty years.*
2. *Prohibition to change the topography of the river basin;*
3. *Prohibition to destroy the beds of drying rivers, streams and watercourses;*
4. *Prohibition of straightening riverbeds and deepening their bottoms below the natural level or blocking them without arranging drains, overpasses or aqueducts;*
5. *Prohibition to reduce the natural vegetation and forest cover of the river basin;*

⁴⁹ Шматько Г. І. Специфіка правового режиму земель під об'єктами гідроенергетики в Україні *Міжнародний науковий журнал “Інтернаука”. Серія “Юридичні науки”*. 2021. № 7. <https://doi.org/10.25313/2520-2308-2021-7-7433>

6. *Prohibition to carry out other works that may negatively affect or affect the water content of the river and the quality of water in it.*

Environmental and legal methods of environmental protection during the construction and use of industrial facilities, including hydroelectric plants, contained in Art. 80 of the Water Code of Ukraine and aimed at the preservation of small rivers and natural resources that together with them form single natural complexes. It is small rivers that are used for the construction of mini hydroelectric power stations, which use natural water pressures without the necessary construction of large-scale hydrotechnical structures, which allows to avoid negative environmental phenomena that may be accompanied by the creation of large hydroelectric power plants⁵⁰. Small power plants make it possible to preserve the natural landscape and the environment not only at the stage of operation, but also during the construction process. During further operation, there is no negative impact on water quality: it completely preserves its original natural properties. Fish are stored in the rivers, and the water can be used for water supply to the population. Unlike other ecologically safe renewable sources of electricity – such as the sun, wind – small hydropower is practically independent of weather conditions and is able to provide a stable supply of cheap electricity to the consumer.

The second group of ecological and legal methods of protecting the environment and people during the operation of hydropower facilities is a **group of obligations**:

1. *Compliance with the established norms and standards of environmental protection during the design, construction and reconstruction of capital facilities.*

Thus, Art. 10 of the Law of Ukraine “On Protection of the Natural Environment” among the guarantees of the environmental rights of citizens singles out the obligation of central executive bodies, enterprises, institutions, organizations to implement technical and other measures to prevent the harmful impact of economic and other activities on the natural environment, to fulfill environmental requirements in planning, placement of productive forces, construction and operation of economic objects. According to Art. 51 of the specified Law, when carrying out such activities, the environmental safety of people, the rational use of natural resources, compliance with the standards of harmful effects on the environment must be ensured⁵¹;

⁵⁰ Платонова Є. О. Правові проблеми та перспективи використання енергії малих річок в Україні. *Юридичний науковий електронний журнал*. 2021. № 7. С. 135–139.

⁵¹ Про охорону навколишнього природного середовища: Закон України від 25 червня 1991 року. *Відомості Верховної Ради України*. 1991. № 41. Ст. 546.

2. *Carrying out an environmental impact assessment of existing and future hydropower facilities, taking into account the results of a strategic environmental assessment.*

The Laws of Ukraine “On Environmental Impact Assessment” dated May 23, 2017 and “On Strategic Environmental Assessment” dated March 20, 2018 establish the legal and organizational principles of environmental impact assessment aimed at preventing environmental damage, ensuring environmental safety, environmental protection, rational the use and reproduction of natural resources, in the process of making decisions about the implementation of economic activities that may have a significant impact on the environment, taking into account state, public and private interests, as well as the obligation to conduct an assessment of state planning documents related to agriculture, forestry, fisheries, energy, industry, transport and other spheres of life. Article 3 of the first of these Laws stipulates “the obligation to carry out an environmental impact assessment of energy industry facilities, in particular, hydroelectric power plants on rivers regardless of capacity and hydro accumulating power plants”.⁵² Such a planned activity is subject to assessment before making a decision on the implementation of the planned activity (Part 1, Article 3 of the Law of Ukraine “On Environmental Impact Assessment”).

In accordance with Part 2 of Art. 2 of the Law of Ukraine “On Environmental Impact Assessment”, the environmental impact assessment is carried out in compliance with the requirements of the legislation on environmental protection, taking into account the state of the environment in the place where the planned activity is planned, environmental risks and forecasts, prospects for socio-economic development of the region, capacity and types of cumulative impact (direct and indirect) on the environment, including taking into account the impact of existing facilities, planned activities and facilities for which a decision has been made to carry out the planned activity or the issue of making such decisions is being considered.

In addition, according to Part 1 of Art. 2 of the Law of Ukraine “On Strategic Environmental Assessment”, relations in the field of assessment of the consequences for the environment, including for the health of the population, the implementation of state planning documents extends to state planning documents that relate, in particular, to energy, the use of water resources, protection environment, urban planning or land management (schemes) and the implementation of which will involve the implementation of activities (or which include activities and objects) for which the legislation provides for the implementation of the environmental impact

⁵² Про оцінку впливу на довкілля: Закон України від 23 травня 2017 року. *Офіційний вісник України*. 2017. № 50. Ст. 1549.

assessment procedure, or which require an assessment, taking into account the likely consequences for the territories and objects of the nature reserve fund and eco-network⁵³. The purpose of this activity is to promote sustainable development by ensuring the protection of the environment, the safety of the population's life and health, the integration of environmental requirements during the development and approval of state planning documents (Part 1, Article 3 of the Law of Ukraine "On Strategic Environmental Assessment");

3. Localization of discharges followed by their neutralization, storage and disposal.

According to Art. 44 of the Water Code of Ukraine, enterprises in the field of hydropower are obliged to comply with the established norms of the maximum allowable discharge of pollutants and limits of the discharge of pollutants, as well as sanitary and other requirements for the regulation of their territory. Such standards are established to assess the environmental safety of production and prevent harmful effects on the surrounding natural environment;

4. Compliance with environmental obligations by special water users:

a) compliance with the established rules of operation of reservoirs, regimes of accumulation and operation of water reserves, regimes of level fluctuations in the upper and lower reservoirs and the passage of water through hydraulic nodes;

b) ensuring in the prescribed manner uninterrupted passage of fish to spawning grounds in accordance with the projects of fish passage facilities (Article 66 of the Water Code of Ukraine).

5. Compliance with environmental protection requirements when allocating land for the needs of hydropower.

According to Art. 96 of the Water Code of Ukraine during the placement, design, construction, reconstruction and commissioning of enterprises, structures and other hydropower facilities, rational use of land must be ensured. At the same time, technologies are provided that provide protection of lands from salinization, flooding or over-drying, as well as contribute to the preservation of natural conditions and landscapes both directly in the area of their placement and on the catchment area of water bodies;

6. Equipping water intakes and other structures with fish protection devices in accordance with approved projects, construction of fish nurseries, artificial spawning grounds, fish passage structures, preparation of the reservoir bed, etc. – the main measures for the preservation and

⁵³ Про стратегічну екологічну оцінку: Закон України від 20 березня 2018 року. *Відомості Верховної Ради*. 2018. № 16. Ст. 138.

protection of fish, other aquatic animals and plants and their reproduction, carried out during placement, design, construction, reconstruction and commissioning of enterprises, buildings and other objects (Article 97 of the Water Code of Ukraine);

7. *Cooperation with nature protection organizations;*

8. *Involvement of the public in making decisions about the construction of new facilities, as well as other decisions that may affect people's health and the state of the environment.*

Water legislation provides for the right of citizens, their associations, and other public formations to participate in consideration by local councils and state bodies of issues related to the use and protection of water and reproduction of water resources; to participate in the conduct by the central body of the executive power that implements the state policy of state supervision (control) in the field of environmental protection, rational use, reproduction and protection of natural resources, inspections of water users' implementation of water protection rules and measures and to make proposals on these issues; provide public control over the use and protection of water and reproduction of water resources. It should be noted the fairly active participation of environmental organizations in solving issues of small hydropower development in Ukraine. However, such participation is accompanied by purely legal problems, which will be discussed below.

A group of **management mechanisms** is the third type of environmental principles aimed at preserving human life and health and the environment from the negative impact of hydropower enterprises. It consists of active and background activities.

Active measures are represented by protection of waters from pollution, clogging and depletion, prevention of their harmful effects, as well as protection of lands from salinization, flooding or over-drying and promotion of the preservation of natural conditions and landscapes both directly in the area of their placement and on the catchment area of water bodies. They are carried out at the stage of placement, design, construction, reconstruction and commissioning of enterprises, buildings and other objects and during the implementation of new technological processes in production. In addition to the water legislation, a similar provision is also contained in Art. 42 of the Law of Ukraine "On Land Protection"⁵⁴.

Background management mechanisms are presented as follows:

1. *monitoring the state of water and water resources.* For the purpose of rational use and protection of water and reproduction of water resources, Art. 21 of the Water Code of Ukraine provides for the implementation of

⁵⁴ Про охорону земель: Закон України від 19 червня 2003 року. *Відомості Верховної Ради України*. 2003. № 39. Ст. 349.

state water monitoring, which is a system of observation, collection, processing, preservation and analysis of information about the state of water bodies, forecasting its changes and developing scientifically based recommendations for making appropriate decisions. The components of state water monitoring are the study of biological, hydromorphological, chemical and physicochemical indicators. Note that state water monitoring is an integral part of the state system of environmental monitoring of Ukraine and is carried out in accordance with the procedure approved by the resolution of the Cabinet of Ministers of Ukraine dated September 19, 2018;

2. application of the principle of basin management in order to obtain a general description of the state of surface and underground waters in the river basin area, as well as to determine the main anthropogenic influences on the quantitative and qualitative state of surface and underground waters, including from point and diffuse sources.

Water legislation establishes the legal basis for the creation and functioning of basin councils, which are a consultative and advisory body within the territory of the river basin, formed under the central executive authority, which implements state policy in the field of water management development, with the aim of ensuring the rational use and protection of water and reproduction of water resources, their integrated management. Such Councils make proposals and ensure the coordination of the interests of enterprises, institutions and organizations in the field of water use and protection and reproduction of water resources within the basin. Basin councils include representatives of central and local executive bodies, local self-government bodies, other interested organizations, institutions, enterprises and representatives of the public;

3. maintenance of the state water cadaster. The state water cadaster includes data from the state accounting of surface and underground waters, the state accounting of artesian wells and the state accounting of water use, which are systematized by hydrographic and water management zoning, groundwater basins, types of economic activity, administrative and territorial units and in Ukraine as a whole. It is compiled for the purpose of systematizing the data of the state water record and determining the water resources available for use, designing water management, transport, industrial and other enterprises and structures related to the use of water. According to Art. 28 of the Water Code of Ukraine The State Water Cadaster is maintained by the central body of the executive power implementing the state policy in the field of water management development, by the central body of the executive power implementing the state policy in the field of geological study and rational use of the subsoil, and by the central body of the executive power implementing the state

policy in the field of hydrometeorological activity, in accordance with the procedure determined by the Cabinet of Ministers of Ukraine;

4. *increase in environmental culture and the level of responsibility in the field of environmental protection*, which aims to increase the level of environmental awareness and understanding by the entity operating in the energy sector of its involvement in the decarbonization of production and the development of a climate-neutral environment.

Along with the Laws that regulate the issue of greening activities in the field of hydropower, there are numerous subordinate legal acts in Ukraine that contain provisions on the design, placement and operation of the specified facilities. For example, the Decree of the President of Ukraine dated October 9, 2009 “On additional measures to increase the level of safety of energy facilities and the development of hydropower in Ukraine”⁵⁵ emphasizes the priority of environmental safety in the energy sector as a key component of the country’s national security.

In order to comprehensively ensure the energy security of the state through effective development of hydropower with maximum use of economically effective hydropower potential, improvement of management of hydropower facilities, increase of their safety level, increase of regulatory maneuvering capacity of hydroelectric power plants and hydroelectric storage power plants to increase the stability and reliability of the combined energy system of Ukraine and its integration into the European energy system, reducing the consumption of organic fuel resources and human-made load on the environment on July 13, 2016, the Cabinet of Ministers of Ukraine adopted the Hydropower Development Program for the period until 2026. The implementation of the program’s tasks is characterized by the presence of positive and negative consequences regarding the impact on the environment. However, as the scientists note, “the Program specifies the amount of electricity production without polluting the air space with emissions, an assessment of the increase in the maneuverability of the electric power system of Ukraine due to the implementation of hydroelectric power plants and hydroelectric power plants is made, but there is no information about the environmental consequences of its implementation.” This additionally proves the need to strengthen environmental and legal regulation of small hydropower in Ukraine.

⁵⁵ Про додаткові заходи щодо підвищення рівня безпеки енергетичних об’єктів та розвитку гідроенергетики України: Указ Президента України від 9 жовтня 2009 року. *Офіційний вісник Президента України*. 2009. № 31. Стор. 54. Ст. 1042.

3.4. Legal problems of the development of national small hydropower (based on the materials of court practice)

The Law of Ukraine “On Alternative Energy Sources” emphasizes that the development of small hydropower is subject to state stimulation. However, despite some positive trends in the revival of small hydropower, rapid development (such as solar power) is not observed. Therefore, for almost twenty years, despite the declared state support, this process has been slow. Such a situation requires a scientific analysis in order to identify its main legal causes.

The formation of Ukrainian small hydropower has its own characteristics: a) a rather long history of existence compared to some other types of alternative energy; b) wave-like development (rise, decline, recovery of interest); c) simultaneous combination and opposition of economic, ecological and social interests. The declaration of state interest in the development of alternative energy, the long-term offer of a high “green” tariff led to a steady increase in business interest in such an investment direction as small hydropower. This entailed many conflicts in which public and private interests collided; positions of government, business and public representatives; needs and priorities of economic, ecological and social development. Many of these conflicts have turned into litigation.

That is why the legal difficulties faced by the small hydropower industry in Ukraine are best seen in the materials of the accumulated court practice. The analysis of many court cases that have been considered by the courts during the last fifteen years makes it possible to single out some typical legal problems and group them as follows: subject, object and implementation.

Subject problems – this group of legal complications, primarily related to the legal status and actions of subjects – participants in hydropower relations. This group includes, in particular, the following legal problems:

1) institutional-legal systemic inconsistency as a collective category that has many specific typical manifestations. First, the indicated inconsistency is clearly visible in the unfortunate multi-vector actions of local public authorities. This is extremely acutely manifested in cases where there is opposition between local councils and state administrations at different levels. As an example, we can cite a case in which the investor – LLC “Ukrtransrail” suffered due to a fundamental inconsistency in the positions of public authorities. Thus, since 2011, the Zhytomyr regional state administration has been actively working to attract investors who would build and start up small hydropower facilities as part of the energy efficiency improvement program. As a result of the events, several memoranda of cooperation with “Ukrtransrail” LLC were signed, according

to which the regional state administration undertook to comprehensively support the investment activities of this entity, in particular, regarding its acquisition of a land plot. A few years later, ignoring all legal and factual actions taken by Ukrtransrail LLC in the direction of hydroelectric power plant construction, the Zhytomyr City Council announced a competition to determine the best investment projects for the construction of hydroelectric power plants on the Teteriv River in the city of Zhytomyr and the village of Denishy, Zhytomyr District, Zhytomyr Region (decision of the executive committee Zhytomyr City Council No. 888 dated 16.12.2015). As a result, a situation has arisen where two entities can potentially obtain permits for the construction of a hydroelectric power plant at the same place. It is interesting that despite several years of disputes and going through all court instances, Ukrtransrail LLC did not manage to defend its interests⁵⁶. This example clearly shows how the inconsistency of the actions of the regional administration and the city council – even under the conditions of formal legality – caused losses to the investor.

A similar problem arose in Transcarpathia, where “Alternative Electric” LLC received the appropriate permits and began construction of a small hydroelectric power station based on the orders of the head of the Rakhiv district state administration “On the development of a detailed plan of the territory for the construction of a hydroelectric power station, outside the settlement” No. 138 dated May 22, 2017, “On the approval of a detailed plan of the territory for the construction of a hydroelectric power plant, outside the settlement” No. 243 dated September 14, 2017. However, according to the order of the head of the Transcarpathian regional state administration “On preventing violations of the rights and interests of territorial communities and citizens, impact on the natural environment during the resolution of issues related to the placement of small hydroelectric power stations” No. 35 of January 24, 2019, the above orders of the head of the Rakhiv district of the state administration were abolished. After long court proceedings, it was recognized that the order of the head of the regional administration in this part was illegal, given that the disputed order of the head of the district administration had the characteristics of an individual act, the effect of which was completely exhausted from the moment of its execution⁵⁷. Similar situations of confrontation between public authorities became prerequisites for the emergence of other disputes.

⁵⁶ Постанова Верховного Суду від 18 березня 2021 року у справі № 296/3836/16-а. URL: <https://reyestr.court.gov.ua/Review/95616289> (дата звернення 25.07.2021 року)

⁵⁷ Рішення Закарпатського окружного адміністративного суду від 12 травня 2021 року у справі № 260/1082/19. URL: <https://reyestr.court.gov.ua/Review/97136818> (дата звернення 25.07.2021 року)

First of all, representatives of business and residents of the territorial community become hostages of such uncoordinated actions of the public authorities.

Similar situations of confrontation between public authorities became prerequisites for the emergence of other disputes. First of all, representatives of business and residents of the territorial community become hostages of such uncoordinated actions of the public authorities⁵⁸. The outlined trend shows the growth of mistrust in authorities in general and in the institutional and functional system of environmental protection in particular. In the conditions of imperfect and ineffective regulatory, organizational and technical regulation of small hydropower relations, the construction of new and the operation of existing small hydropower plants is carried out with numerous violations of environmental legislation. This leads to the emergence of social conflicts, destruction of rivers, degradation of biological resources and water ecosystems⁵⁹;

2) the problem of ensuring public participation also accumulates several typical manifestations that deserve attention.

First of all, there is a significant number of cases of falsification of the results of public hearings. The participation of residents of the territorial community in the direct resolution of issues of local importance is also discredited. On the one hand, negative decisions regarding the location of hydroelectric power plants on the territory are easily “broken” due to procedural violations and inaccuracies. For example, the decision of the general meeting of residents of the village of Velikiy Bychkiv, Rakhiv district, Zakarpattia region, according to which the community expressed its opposition to the construction of a hydroelectric power station on the Shopurka river, was invalidated⁶⁰. On the other hand, there are cases of fabricating positive decisions of local councils, despite the reluctance of the citizens.

Secondly, the participation of public organizations should be recognized as an important component of this problem. It should be noted the rather active participation of environmental organizations in solving issues of small hydropower development in Ukraine. In particular, they actively act

⁵⁸ Рішення Закарпатського окружного адміністративного суду від 12 травня 2021 року у справі № 260/1082/19. URL: <https://reyestr.court.gov.ua/Review/97136818> (дата звернення 25.07.2021 року)

⁵⁹ Платонова Є. О. Правові проблеми та перспективи використання енергії малих річок в Україні. *Юридичний науковий електронний журнал*. 2021. № 7. С. 135–139.

⁶⁰ Рішення Закарпатського окружного адміністративного суду від 03 вересня 2019 року у справі № 260/219/19. URL: <https://reyestr.court.gov.ua/Review/84260581> (дата звернення 25.07.2021 року)

as third parties during the consideration and resolution of legal disputes regarding the specified issues. However, the participation of environmental organizations in the role of initiators of such disputes turned out to be rather problematic. As a good example can be the case of the lawsuit filed by the International Charity Organization “Ecology-Pravo-Lyudyna” against the Bystretsk Village Council, private entrepreneur V.V. Myronyuk, LLC “Hydropower”, the main claim of which was the invalidation of the lease agreement for the land plot that was transferred for use for the construction and maintenance of a small hydroelectric power station in the Ivano-Frankivsk region. It is interesting that the judicial review of the appeal of the environmental organization was largely reduced to the resolution of the question of the legality of such an appeal, and not to the resolution of the legal problem with the concluded land lease agreement⁶¹.

Since the legal mechanisms provided for by the legislation do not work properly, the interests of the territorial community in matters of the location of small hydropower facilities remain unprotected. A quite natural consequence was the holding of a number of public protest events in different parts of Ukraine, which aimed to draw attention to the categorically negative position of the local population regarding the placement of some small hydroelectric power plants.

Object problems – this group brings together problematic issues that concern the objects of hydropower relations. The biggest problem in this aspect should be recognized as a kind of “*splitting*” of the legal regime of a hydroelectric power plant as a complete object – there is a complex of heterogeneous legal regimes of individual parts that make up such a hydropower plant. This phenomenon occurs as a result of the fact that the legislation does not provide for the formation of a single legal regime for a hydropower facility – instead, a mechanical set of legal regimes is provided for: a) land plots on which the power plant is located, b) structures, c) hydrotechnical facilities, d) equipment, etc. All these integral components of a single complex object – a hydroelectric power plant – can be in different forms of ownership, on different legal titles, on the balance sheet of different entities, etc.

This problem is very well illustrated by the example of the dispute between Ukratransrail LLC and Zhytomyr City Council. The planned construction of a small hydroelectric power station on the Teteriv River became the subject of long and complicated court proceedings, because:

⁶¹ Постанова Львівського апеляційного господарського суду від 17 червня 2015 року у справі № 909/1421/14. URL:<https://reyestr.court.gov.ua/Review/45367600#> (дата звернення 25.07.2021 року)

a) the investor, having signed memorandums of cooperation with the regional administration, leased a plot of land from the district state administration for the construction of a hydroelectric power station; b) the plot of land on which the hydrotechnical structure (reservoir with spillway dam) is located, is under the right of permanent land use in KP “Zhytomyrvodokanal”; c) the hydrotechnical structure is part of the municipal property of the city of Zhytomyr, although it is located on the territory of the village of Denishi. That is, the future hydroelectric power station is a kind of puzzle in which the elements have different owners and different legal regimes.

Additionally, the identified problem of “splitting” of the legal regime of the hydropower facility is illustrated by the case of the claim of SGC “Gubynskyi” to the Ladigiv village council of Khmelnytskyi region. According to the circumstances of this case, the cooperative, considering itself the owner of a small hydroelectric plant, sold it as a complete property complex to ResursEcoEnergo LLC. However, after that, the executive committee of the Ladigiv village council made a decision to register the right of communal ownership of an earthen dam with a spillway and a water intake for a hydroelectric power plant. That is, the construction of the hydroelectric power station was successfully expropriated, but the hydrotechnical structures necessary for its intended functioning were not. The courts emphasized that the presence of property on the company’s balance sheet is not sufficient proof of the acquisition of ownership of such property⁶². The breakdown of the legal regime of the hydropower facility provoked a long-term dispute, delayed the operation of the power plant and highlighted the insecurity of the investor in this area.

Another problem, which is included in the group of object problems, should be indicated the problem of restoration of abandoned small hydroelectric power plants. In this connection, there are cases when such an object goes through the procedure of recognition as ownerless property and becomes communal property. Often this happens as a preparatory stage for the next privatization or transfer to a private investor.

The problems of implementation are united by those legal complications that accompany the direct process of implementing hydropower projects:

1) choosing the optimal contractual structure for the registration of relations regarding the construction or reconstruction of hydroelectric power plants. Analysis of practice demonstrates a significant range of options used

⁶² Постанова Вишого господарського суду України від 30 листопада 2016 року у справі № 924/1319/14. URL: <https://reyestr.court.gov.ua/Review/63318491> (дата звернення 25.07.2021 року)

in Ukraine for this purpose: for example, superficies, leases, easements, etc. The ambiguity of the use of the servitude contractual construction even caused a legal dispute. The Zhytomyr City Council transferred the hydrotechnical facility, which it is the owner of (at the same time, this facility is on the balance sheet of the utility company “Operation of Artificial Structures”), to the use of Free Energy LLC by establishing an easement for the use of this facility for the purpose of construction and operation of a small hydroelectric power station. Indeed, the expediency of such a choice raises questions. The prosecutor appealed to the court with a lawsuit, believing that the Zhytomyr City Council and Free Energy LLC violated the requirements of the law and entered into a sham transaction – an easement agreement, which by its very nature is actually a concession agreement, and this leads to the illegal use of communal property and water resources, and is therefore subject to invalidation. The courts recognized that although the disputed contract contains a discrepancy between the name and its content, however, taking into account the provisions of Part 2 of Art. 628 of the Civil Code of Ukraine, contains elements of different contracts and is a mixed contract, which is not a violation⁶³;

2) *bureaucratic complications, administrative and procedural red tape* as a typical problem has both regulatory and subjective prerequisites, often demonstrates a high corruption factor. To illustrate, we can give an example of a dispute between LLC “Hydroenergoresurs” and Shcherbaniv village council of Poltava region. Having received all the necessary permits for the construction of a mini-hydroelectric power station, having successfully issued the right to use a plot of land to carry out the relevant activity, the company received technical conditions for ensuring connection to power lines, namely: the route of laying (construction) of a 10-kW transmission line on a plot of land with an approximate area of 0.6960 ha in the village of Nizhny Mlyn on the territory of Shcherbanivska village council. In order to fulfill these technical conditions, “Hydroenergoresurs” LLC appealed to the village council with the question of making a decision on the formation of land plots, granting permission for the production of technical documentation on land management and its state registration in the State Land Cadaster of Ukraine, as well as making a decision on recognizing the right of communal ownership on registered land plots in the Shcherbanivska community in the person of the Shcherbanivska village council with the granting of the right of paid easement on these land plots in favor of Hydroenergoresurs LLC. That is why in order to fulfill the technical conditions for connection to the power transmission lines of the

⁶³ Постанова Північно-західного апеляційного господарського суду від 16 березня 2021 року у справі № 906/494/20. URL: <https://reyestr.court.gov.ua/Review/95672902> (дата звернення 25.07.2021 року)

hydroelectric plant, it was necessary to first issue an easement on land plots that had not even been formed yet. Despite the fact that the investor offered to bear all the expenses related to the formation and registration of land plots, consideration of his issue was postponed several times, and later he was refused. This forced the company to propose to the village council a draft agreement on participation in the complex economic and social development of the territory of the Shcherbanivska rural united territorial community, according to which it was proposed to allocate 20,000 UAH for the development of the social sphere of the village. However, this proposal was also rejected. Having exhausted all possibilities for a peaceful settlement of the conflict, the investor appealed to the court. As a result of the court proceedings, the refusal of the village council was recognized as illegal, and the council was also obliged to re-consider the merits of the petition of Hydroenergoresurs LLC, taking into account the conclusions formulated by the court⁶⁴. However, the unjustified prolongation of the procedure caused forced delays in the normal operation of the power plant.

Against the background of the identified domestic legal problems of the development of small hydropower, it is interesting to pay attention to the fact that the experience of foreign countries demonstrates both similar and completely different problems. For example, similar difficulties with overcoming bureaucratic obstacles are recorded in Serbia, Italy, Slovenia, and Spain. Protection of landscapes and mountain areas creates obstacles for the development of small hydropower in Croatia and Greece. Developed EU countries also have their own difficulties. For example, the implementation of the EU Water Framework Directive reduces the potential of European small hydropower, because it significantly increases environmental requirements for water protection. In Austria, Belgium and Germany, there is significant opposition to the development of hydropower from powerful administrations, non-governmental organizations and the fishing lobby, mainly due to environmental and fishing problems. Significant opposition to small hydropower is recorded in Poland, where a memorandum was submitted in 2009 demanding a moratorium on the construction of small hydropower plants; however, although the memorandum was supported by a number of institutions and mass media, the ban on small hydropower was not implemented⁶⁵.

Thus, both in Ukraine and in the world, small hydropower is a difficult and conflict-filled sphere of alternative energy. The main legal paradox that

⁶⁴ Постанова Другого апеляційного адміністративного суду від 02 червня 2020 року у справі № 440/4827/19. URL: <https://reyestr.court.gov.ua/Review/89683053> (дата звернення 25.07.2021 року)

⁶⁵ Liu H., Masera D., Esser L., eds. World Small Hydropower Development Report 2013. United Nations Industrial Development Organization; International Center on Small Hydro Power. URL: https://www.academia.edu/40392672/World_Small_Hydropower_Development_Report_2013 (дата звернення 25.07.2021 року)

can be discovered during its research is that the higher public administration bodies (at the level of international organizations, national states, regional authorities) in the process of their rule-making stimulate the development of small hydropower as a component of alternative energy (this finds its manifestation in favorable legislation, state support, regional development programs, etc.), while territorial communities, representatives of environmental organizations, local authorities – more often demonstrate opposition to the placement of small hydropower facilities. In the conditions of Ukraine, this fundamental conflict is fueled by many additional legal factors, which were mentioned above.

When examining all the identified problems in more detail, it can be claimed that they have a common denominator in poly subjectivity and poly objectivity of legal relations in the field of small hydropower. The first component of this problem, in our opinion, can be solved by concluding multilateral agreements between all the main participants of such relations at the preparatory stage of the formation (restoration) of small hydropower facilities. The increase in time for the preparation and signing of such contracts is justified by the reduction of the risk of protracted disputes at the next stages of the development of hydropower relations. The second component of the problem, in our opinion, should be solved by enshrining in the legislation a single legal regime of the hydroelectric power plant as a complex object. This will make it possible to use a productive methodological approach to the integrity of the hydroelectric power plant, in contrast to the current legal “splitting” of its legal regime into the regimes of its separate component parts⁶⁶.

⁶⁶ Григор’єва Х. А. Мала гідроенергетика в Україні: юридичні проблеми розвитку (на матеріалах судової практики). *Часопис Київського університету права*. 2021. № 2. С. 241–246.