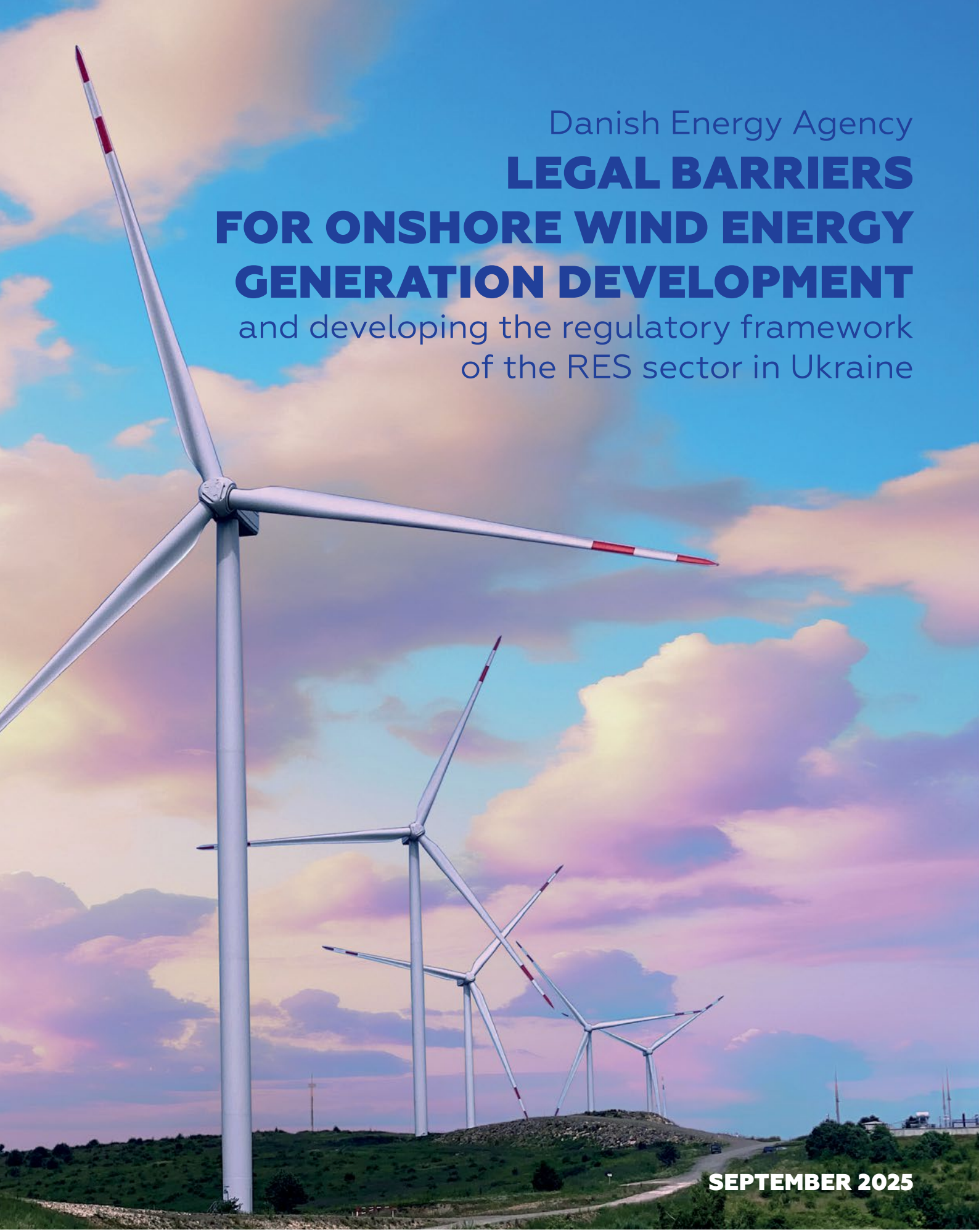

Danish Energy Agency

LEGAL BARRIERS FOR ONSHORE WIND ENERGY GENERATION DEVELOPMENT

and developing the regulatory framework of the RES sector in Ukraine

SEPTEMBER 2025

UWEA UKRAINIAN WIND ENERGY ASSOCIATION

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SUMMARY

This report, developed under the Ukraine-Denmark Energy Partnership Program *(UDEPP),* provides a comprehensive assessment of the legal and regulatory framework for permitting of onshore wind development in Ukraine. It focuses on identifying barriers to accelerated deployment of onshore wind and aligning national legislation with specific provisions of the EU's Renewable Energy Directive *(RED III)*. The report highlights key challenges in permitting procedures, spatial planning, land use, grid connection, and environmental assessments, and provides a gap analysis against EU RED III Directive.

Drawing on lessons from Denmark and other EU Member States, the report provides recommendations regarding Ukraine's permitting processes reform. Recommendations include the establishment of Renewable Energy Acceleration Areas *(RAAs),* streamlined one-stop-shop procedures, and improved spatial planning tools to reduce administrative complexity and delays. The findings emphasize the importance of harmonizing Ukraine's framework with EU requirements to unlock investment opportunities, improve investor confidence, and ensure access to EU funding mechanisms.

The analysis underscores the urgent need for robust, transparent, and predictable permitting systems to enable Ukraine to meet its 2030 onshore wind capacity target of 6.1 GW. It also highlights opportunities for improving public participation, digitalizing administrative processes, and addressing regulatory gaps that currently hinder the sector's development. These measures will strengthen energy security, support Ukraine's EU accession goals, and accelerate the green transition in the context of post-war reconstruction.

We would like to sincerely thank the Ministry of Energy of Ukraine and the Danish Energy Agency for leadership and close collaboration throughout this project. We also express our appreciation to the Ministry of Economy, Environment and Agriculture, Ministry for Development of Communities and Territories, NPC UKRENERGO and industry stakeholders who actively contributed their time and expertise. Their engagement and valuable input were instrumental in shaping the findings and recommendations of this report, ensuring that the outputs respond to practical challenges and Ukraine's national priorities.

CONTENT

LIST OF ABBREVIATIONS

ACER	Agency for the Cooperation of Energy Regulators
CMU	Cabinet of Ministers of Ukraine
DEA	Danish Energy Agency
DSO	Distribution System Operator
EIA	Environmental Impact Assessment
GIS	Geographic Information System
NEURC	National Energy and Utilities Regulatory Commission, the Ukrainian energy market regulator
NREAP 2030	Ukraine's National Renewable Energy Action Plan
RAAs	Renewable Energy Acceleration Areas
RED	Renewable Energy Directive
RES	Renewable Energy Sources
SEA	Strategic Environmental Impact Assessment
TCs	Technical Conditions
TSO	Transmission System Operator
UDEPP	Ukraine-Denmark Energy Partnership Program
UFP	Ukraine Facility Plan
UWEA	Ukrainian Wind Energy Association

1. INTRODUCTION

The Russian invasion of Ukraine has had severe effects on Ukraine's energy sector. The Russian offensive has meant that Ukraine's production capacity of fossil fuels and nuclear energy has been drastically reduced. Similarly, 'half of Ukraine's generating capacity was knocked out'[1] as much of the wind-powered energy, and more specifically approximately 71% of Ukrainian wind energy capacity[2], are located in what is now uncontrolled territory.[3] Russia's deliberate targeting of Ukraine's energy sector as a means of warfare has caused huge electricity shortages and blackouts, causing Ukrainian citizens to endure sustained periods without a stable supply of electricity and heat. Consequently, the demand for additional electricity generation remains at an all-time high and a priority for Ukraine will be to regain and prioritize energy security and independence in the face of such geopolitical instability.

As underlined by Mykola Kolisnyk, Deputy Minister of Energy of Ukraine: 'The development of distributed generation, particularly wind energy, is key to Ukraine's energy independence and security. Utilizing our natural resources in combination with local initiatives enables the creation of a flexible, challenge-resistant energy supply system.'[4] Thus, Ukraine needs to rebuild energy system in such a way that does not rely on imported energy resources. This requires, among others, 'restructuring (...) the energy sector, decentralisation, and harmonisation with the EU's electricity grid and market'[5] which are key factors towards facilitating Ukraine's energy independence. In particular, it will be vital for Ukraine to align and integrate with the EU's energy market as this will ensure Ukraine's access to EU funding and investments, in addition to providing overall security guarantees.[6] Therefore, to prepare for Ukraine's shift to a higher share of renewable energy sources and overall restructuring of the energy sector, a focal area for this transition will be the regulatory framework. Indeed, with the Ukrainian government setting a target in 2024 to produce 6.1 GW of onshore wind-powered energy by 2030[7], Ukraine will need to ensure that there is a robust and updated legislative framework regulating this part of the energy sector.

At the time of writing the report, the total installed onshore wind capacity amounts to 1.92 GW. Though only 20 MW of new wind capacity was added to the grid in 2024, construction of several new wind farms has been already launched in the Zakarpattia, Lviv, Volyn, Mykolaiv, and Odesa regions. In total, Ukraine has about 4 GW wind capacities in the pipeline. To achieve a stronger legislative framework and one which aligns with that of the EU's regarding onshore wind, it would be useful for Ukraine to draw inspiration from EU countries who have also had to adapt to the new legislative standards within the context of the green transition and whose energy sectors are regulated at both EU and national level.

Ukraine and Denmark have worked together in the field of energy since 2014 through the Ukraine-Denmark Energy Partnership Program *(UDEPP)*. The overall goal of this cooperation is to secure Ukraine's energy supply and to prepare for Ukraine's accession into the European Union. As mentioned above, this will be achieved through strengthening the enabling environment for investments in sustainable energy, in assisting Ukraine in achieving its renewable energy, energy efficiency, and energy independence targets and aligning Ukraine's regulatory framework with that of the EU's.

[1] Reuters https://www.reuters.com/world/europe/ukrainians-find-new-energy-sources-beat-blackouts-winter-arrives-2024-12-03

[2] UWEA Statistics – Library | UWEA

[3] UWEA Statistics – Library | UWEA

[4] UWEA Ukrainian Wind Power Sector 2024, Market overview

[5] Danish Energy Agency cooperates with Ukraine on green transition

[6] EU COM press release: https://ec.europa.eu/commission/presscorner/detail/en/ip_25_588

[7] UWEA UKRAINE'S GOVERNMENT SETS TARGET FOR 6.1 GW OF WIND POWER BY 2030 AND ANNOUNCES PILOT RES AUCTION DATES – News | UWEA

Since 2023, the cooperation between Ukraine and Denmark has evolved to include onshore and offshore wind sector, long-term energy planning, integration of renewable energy, district heating, and energy efficiency. These areas have been selected due to Denmark's strong expertise and established competencies within them.[8] The objective of this report is to support Ukraine's energy transition and its integration into the European Union, with a specific focus on the development of onshore wind energy. This project plays an important role in advancing Ukrainian legislation and ensuring alignment with the EU regulatory framework. It contributes directly to the implementation of Ukraine's National Renewable Energy Action Plan *(NREAP 2030),* as well as to the fulfilment of the country's EU accession objectives — particularly the transposition of the Renewable Energy Directive *(RED III),* in accordance with Ukraine's commitments under the Association Agreement and the Energy Community Treaty.

During the inception phase, the Ukrainian Ministry of Energy has specifically asked for knowledge sharing and sharing of lessons learnt regarding the implementation of the key permitting provisions of the Renewable Energy Directive. During the inception discussions, the Ministry of Energy emphasized that the number one priority is to ensure legislative harmonization in permitting, as this is critical to unlocking EU funding, boosting investor confidence, and removing administrative hurdles that currently delay project deployment. To this end, the Ministry of Energy requested a structured, article-by-article analysis of RED III's permitting provisions *(notably Articles 15 through 20),* alongside targeted recommendations on how Ukraine can transpose and operationalize these rules within its national context. The Ministry of Energy also highlighted the need for this work to contribute directly to legislative and regulatory reforms anticipated in 2025.[9]

This report presents the findings of the project and is the result of several months of research. It includes a comparative legal analysis to identify gaps and opportunities for aligning Ukraine's regulatory framework with EU legislation. It also draws on good practices and lessons learned in areas such as administrative streamlining, one-stop-shop permitting models, spatial planning for renewables, and grid access and grid-related permitting, as laid out in RED III. Finally, it provides a set of actionable recommendations for incorporating RED III provisions into Ukraine's legislation. Particular attention is devoted to the requirements of the RED III – especially those related to permitting – and to the best practices of Denmark and other EU Member States in transposing these provisions into national law.

[8] Danish Energy Agency cooperates with Ukraine on green transition

[9] According to the Regulation of the Cabinet of Ministers of Ukraine no. 903 of July 21, 2025, the Ministry of Economy was renamed into the Ministry of Economy, Environment and Agriculture of Ukraine, the Ministry of Environmental Protection and Natural Resources and Ministry of Agriculture have been dissolved and their powers and functions transferred to the Ministry of Economy, Environment and Agriculture of Ukraine.

2. RESEARCH OBJECTIVES AND METHODOLOGY

The project is specifically designed to address the priorities identified by the Ukrainian Ministry of Energy, while maintaining a clear focus on the overarching objective of advancing onshore wind development through targeted regulatory advice and supporting the alignment of Ukraine's legal framework with relevant EU energy and environmental legislation as part of its broader European integration process.

The key objectives of this project are:

1. To identify and assess legal and regulatory barriers to the deployment of onshore wind energy in Ukraine, focusing on spatial planning, land use, permitting, and grid connection processes.
2. To support Ukraine's alignment with the Renewable Energy Directive *(RED III)* by analysing the current legal framework and recommending reforms for streamlined permitting, accelerated deployment, and integration of wind energy and by developing set of actionable recommendations.
3. To support Ukraine's energy security and green transition by enabling large-scale deployment of wind energy in line with national strategies and post-war reconstruction goals.

The project commenced in January 2025 with an inception phase. During the initial scoping process, specific needs were identified by the Ministry of Energy regarding the alignment of Ukraine's regulatory framework with the permitting provisions of the Renewable Energy Directive *(RED III)*. The table below outlines the specific articles of the Renewable Energy Directive *(RED III)* that have been referenced, along with the corresponding sections in the report where each article is addressed.

RED III ARTICLE	AREA OF COVERAGE	REFERENCE IN THE REPORT
Article 15	Administrative procedures, regulations and codes	Chapter 4
Article 15 c	Renewable Energy Areas	Chapter 5
Article 15 d	Public participation	Chapter 4, Chapter 8
Article 15e	Areas for grids storage and infrastructure	Chapter 7
Article 16	Organisation and basic principles of the permit-granting procedure	Chapter 4
Article 16a	Permit-granting procedure in renewable acceleration areas	Chapter 6
Article 16b	Permit-granting procedure outside renewable acceleration areas	Chapter 6
Article 16c	Accelerating the permit-granting procedure for repowering	Chapter 7
Article 16d,16e	Not in the scope of this report	Partially covered in Chapter 4
Article 16f	Overriding public interest	Chapter 4
Article 17	Simple-notification procedure for grid connections	Chapter 7
Article 20	Access to and operation of the grids	Chapter 7

As part of this, the report places a strong emphasis on the areas of spatial planning, grid connection, and environmental procedures — identified in the agreed scope of work as key priorities for the Ministry of Energy. In these areas *(covered by Chapters 6,7, and 8 respectively)* key bottlenecks for the development of onshore wind projects in Ukraine are portrayed, followed by an analysis of the current regulatory status in Ukraine, and in the context of provisions of the RED III, a gap analysis of how Ukraine can align its legal and procedural frameworks with EU standards in these domains.

The methodology for this project combines rigorous documentary and legal analysis with iterative validation and co-development of recommendations in close coordination with the Ministry of Energy of Ukraine. The approach is designed to ensure both technical robustness and practical relevance to ongoing legislative and regulatory reforms in Ukraine's renewable energy sector.

A central element of the methodology is the structured knowledge transfer from Denmark and selected EU Member States, particularly regarding their experience with the transposition and implementation of the Renewable Energy Directive *(RED III)*. This includes comparative insights into permitting reforms, the establishment of go-to areas, spatial planning integration, and the streamlining of administrative procedures.

The project team held regular implementation meetings with the Ministry of Energy throughout the project in parallel, targeted stakeholder interviews have been conducted to gather insights from relevant actors across the public and private sectors, ensuring that the final outputs are grounded in the realities of on the ground implementation.

3. THE CURRENT STATE OF THE REGULATION OF THE ONSHORE WIND ENERGY SECTOR IN UKRAINE

3.1. THE UKRAINIAN ENERGY SECTOR DURING WARTIME

Since the first days of a full-scale invasion of Ukraine launched by Russia in 2022, the energy sector has become the primary target of the aggressor due to its strategic importance for the country's economy and the livelihood of its population. Thus, only in 2024, Russian missile attacks targeted Ukrainian coal and thermal generation, which resulted in the loss of about 9 GW of generating capacity.

As of the beginning of 2022, the share of renewable energy in the Ukrainian energy system reached almost 14% *(or about 9.5 GW in absolute numbers, of which wind farms – 1.9 GW, solar power plants – 6 GW)*. The war has significantly affected the national RES sector; of the above mentioned 9.5 GW of renewable energy capacities, 25% has come under temporary occupation, including approximately 1.3 GW *(71%)* of wind power plants and 0.6 GW *(14%)* of the utility-scale SPPs. In 2022-2023, 243 MW of wind power capacity was commissioned and connected to the grid in Ukraine, while in 2024, Ukraine added only about 20 MW of new wind capacity[10].

Given the scale of destruction to the existing generating capacities and the necessity to decentralise generation to enhance the resilience of the power system, there is an urgency for the accelerated deployment of new wind and other RES electricity generating facilities. This is evidenced by the NREAP 2030, which provides for the implementation of 38 measures to achieve a 27% share of renewable energy in gross final energy consumption[11].

According to NREAP 2030, the aggregate electricity generation from renewables should increase to 43,894 GWh in 2030. Wind power plants are expected to generate 17,455 GWh, while the installed wind capacity should reach 6.2 GW by 2030. According to the Ukrainian Wind Energy Association *('UWEA')*[12], the cumulative annual wind additions over three years preceding 2022 was below 0.7 GW *(2019 – 0.63 GW, 2020 – 0.14 GW, and 2021 – 0.36 GW)*. Thus, to deliver the national wind targets the Ukrainian wind energy sector needs to add at least 0.8 GW of new capacities annually.

In 2024, The Ukraine Facility Plan *(the 'UFP')*[13], the European Union financial assistance programme for Ukraine, was introduced. Under the UFP, EU allocates 50 billion euros to finance the state budget, stimulate investment, and provide technical support in the UFP implementation during 2024-2027. UFP prioritises energy security and the transition to low-carbon and renewable energy sources with the continuous development of energy sustainability. Ukraine must ensure the deployment and utilization of RES, including streamlining permitting procedures in line with new EU requirements.

In 2023, the European Union *(EU)* adopted Directive *(EU)* 2023/2413 of the European Parliament and the Council of 18th October 2023 amending Directive *(EU)* 2018/2001, Regulation *(EU)* 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources and repealing Council Directive *(EU)* 2015/652 *('RED III')*. RED III lays down measures to simplify and accelerate procedures for planning, permitting, and access to networks. The RED III key provision of 'RES accelerated areas' is a brand-new concept for the Ukrainian regulatory framework. Introducing this concept into national legislation and establishing RAAs will accelerate wind and other RES deployment in Ukraine and improve the investment environment, thus supporting Ukraine to deliver its ambitious targets set out in the national energy strategy.

[10] https://reform.energy/news/glava-uvea-nazvav-2024-rik-provalnim-dlya-vitroenergetiki-tsogorich-vdalosya-zapustiti-vsogo-20-mvt-23133

[11] Ukraine *(2024)* The National Renewable Energy Action Plan until 2030 *(NREAP 2030)*, approved by the ordonnance of Cabinet of Ministers of Ukraine no. 761-p of 13th of August 2024. Available at: https://zakon.rada.gov.ua/laws/show/761-2024-%D1%80#Text *(Accessed: 23.04.2025)*.

[12] УВЕА *(2025)*. Вітроенергетичний сектор України 2024: Огляд ринку. Українська вітроенергетична асоціація *(УВЕА)*. Режим доступу: https://drive.google.com/file/d/1AhSOSj-LMr2uF-P44SL_LFjEJC0cQt16/view. *(Відвідано: 03.05.2025)* – с. 30.

[13] Ukraine Facility Plan

3.2. GENERAL OVERVIEW OF REGULATIONS APPLICABLE TO ONSHORE WIND IN UKRAINE

3.2.1. OVERVIEW OF THE PERMITTING PROCEDURES FOR THE DEVELOPMENT OF WIND POWER PLANTS IN UKRAINE

Ukraine's permit process is decentralised, with multiple agencies involved. The main document in this permitting procedure is the construction permit. To receive the construction permit the developer must obtain 1) urban planning conditions and restrictions – document containing initial terms of the development of land plot or number of land plots adjacent to each other, including approval of height of structures to be constructed; 2) environmental impact assessment conclusion that marks completion of the environmental impact assessment procedures for the project. These documents are issued by various municipal and national authorities.

To start the movement towards obtaining the construction permit the developer must be sure that the area within which the project is intended to be developed has required urban planning documentation developed *(except for cases, when the urban planning conditions and restrictions may be substituted with the justified conclusion from the urban planning and architecture authority as described below in this Section 3)*.

3.2.2. URBAN PLANNING AND LAND LEGISLATION

In Ukraine the spatial *(urban)* planning is regulated at national, regional, and local levels. Applicable rules aim at ensuring sustainable land use and infrastructure planning. Annex I – Types of spatial (*urban)* planning documentation – includes naming and description of key spatial *(urban)* planning documentation.

Spatial planning at the national level is carried out in Ukraine through the development of the General Planning Scheme of the Territory of Ukraine, *('General Planning Scheme')* which is the main document defining the strategy of the state development, providing a balance between the interests and needs of different territories, conceptual solutions for the planning and use of Ukraine's territory. The General Planning Scheme is subject to expert review and strategic environmental assessment.

The General Planning Scheme was approved by the Law of Ukraine 'On the General Planning Scheme of the Territory of Ukraine' on February 7, 2002, and became the first legally approved document of this level. However, the General Planning Scheme expired on January 1, 2021, and Ukraine faces the issue of developing and approving a new version of it soon. Draft Law No. 3337 dated 14 April 2020 was developed and submitted to the Verkhovna Rada of Ukraine to unlock the development of new General Planning Scheme of Ukraine, however it just passed first reading on 03 February 2021 without further progress.

Given that the situation in Ukraine has drastically changed since 2020 it seems that any further improvements and amendments of the legislation regarding the General Planning Scheme are not going to happen because the General Planning Scheme instrument is not considered as proper instrument of national planning, which was particularly confirmed by the representatives of the Ministry for Communities and Territories Development In their interview on 23rd July 2025.

Spatial planning at the regional level is carried out through the development of planning schemes for the territory of the Autonomous Republic of Crimea, regions, and districts. These regional/district planning schemes provide general solutions for the development of the territories within the respective region or part thereof. They should be approved by decisions of the respective councils, provided that a strategic environmental assessment has been conducted and a positive conclusion from the state expert review has been obtained. Conceptual and general approaches and solutions included in the General Planning Scheme of the Territory of Ukraine and the planning schemes for the territory of the Autonomous Republic of Crimea, regions, and districts are to be considered during the development of the comprehensive plan of spatial development of a territorial community or the general plan of a settlement.

Spatial planning at the local level serves the purpose of categorisation of land plots, definition of their spatial planning regime, and determination of possible use of land plots. The main purpose of the urban planning documentation is to define zoning re-

gime of lands within respective administrative boundaries. The zoning regime, in turn, determines the designated purpose of land plots that could be defined for lands in the respective area. The procurement of developing and updating these spatial *(urban)* planning documents is the responsibility of the respective municipal authority. There are two types of different spatial *(urban)* planning documentation – the comprehensive plan of spatial development of a territorial community and the general plan of a settlement *(city, town, village etc)*. The difference between these two documents is that the comprehensive plan of the territorial community covers all settlements *(each territorial community may include two or more settlements of different types)* including areas within and outside the settlements within the boundaries of the territorial community, while the General Plan of a Settlement *(city, town, village etc)* contains spatial planning solutions for the territory limited by the boundaries of a single settlement.

During the interview with the Ministry for Communities and Territories Development on July 23, 2025, the Ministry officials claimed that only 4 territorial communities *(out of approximately 1,500 communities)* have approved comprehensive plans for spatial development; while more than 30 communities are currently working on it. This delay caused by the complex of reasons:

1. unavailability of updated planning cartography materials, data from the State Land Cadastre about all land plots located within the specific territory, their legal regime and restrictions applicable to them[14];
2. lack of fiscal resources local communities to commission the plans, human resources to guide plan development, and knowledge of how to use and implement them[15];
3. insufficient number of experts and practical background of performance of respective works[16];
4. lack of updated urban planning documentation at the national and regional levels, which is necessary to determine further planning at the local level[17];
5. limited access to comprehensive background information, unreliable data sources, insufficient databases covering key aspects of comprehensive plans[18] and discrepancies between existing state and local urban planning documents.

Absence of the urban planning documentation on the local level was not a major obstacle for wind power plant developers before January 1, 2025, since developers used a detailed territory plan to design the functional zone of required land plots. Detailed territory plan has been developed on the order of the municipal authority in the area where the respective land plot is located. An integral stage in the development of this type of documentation is the strategic environmental impact assessment. The implementation of a Strategic Environmental Assessment *(SEA)* is carried out by the municipal authority responsible for preparing the relevant detailed territory plan, as prescribed by the Law of Ukraine 'On Strategic Environmental Assessment' dated October 12, 2018.[19] Despite the need to conduct the SEA, the detailed territorial plan itself was relatively easy to develop, as this document did not require significant financial or administrative resources. The situation changed after January 1, 2025, when it became forbidden to design a zoning regime for lands based on detailed territory plans. As a result of this legislative gap, progress on allocating land for wind energy projects has been stopped for all wind developers.

Realising the problem, in the first quarter of 2025, the Verkhovna Rada of Ukraine considered legislative amendments aimed at extending the transition period during which detailed territorial plans could be used to determine the zoning regime for territories that do not have approved comprehensive spatial plans for their

[14] Третяк А., Третяк В., Лобунько Ю. *(2021)*. Інформаційні проблеми розроблення комплексних планів просторового розвитку територій територіальних громад. Грааль Науки, *(9)*, с. 33 – 41. Режим доступу: https://doi.org/10.36074/grail-of-science.22.10.2021.02 (Відвідано: 09.03.2025)

[15] Манцевич Ю. М. Проблеми реалізації підготовчого етапу розроблення містобудівної документації (комплексного плану просторового розвитку території територіальної громади) / Ю. М. Манцевич, Г. В. Айлікова // 'Land & property development: innovations and transformations' : зб. матер. II Міжнародної науково-практичної конференції, 25 – 26 травня 2023 р. / Київ. нац. ун-т буд-ва і архіт. ; ред. : А. П. Лізунова; М. Ю. Михальова. – Київ : КНУБА, 2023. – с. 32 – 35.

[16] Ibid.

[17] Ibid.

[18] Ibid.

[19] Under the Ukrainian legislation SEA is an immanent stage of the development of the detailed territory plan *(SEA is included in it as a separate chapter)*. The necessity to perform SEA while developing detailed territory plan is already taking into account while making commented statement about detailed territory plan.

territorial communities. On March 25, 2025, the Verkhovna Rada of Ukraine approved the draft Law of Ukraine 'On introduction of amendments to some legislative acts of Ukraine regarding the use of land plots for development of digital infrastructure'. This new law allows for the establishment of functional zoning outside settlement boundaries based on detailed territorial plans until January 1, 2028. The President of Ukraine signed the bill on August 5, 2025 and it came into force on August 8, 2025.

It is worth noting that to facilitate the construction of industrial objects *(wind farms including)* during Martial Law and overcome the lack of comprehensive plans for spatial development, Ukrainian legislation provides that during Martial Law and for five years after its termination, the designated purpose of land plots *(including land plots for the wind farm construction),* can be changed without adhering to the standard requirement of its correspondence to the functional zoning outlined in local urban planning documentation and, accordingly, without approved urban planning documentation at the local level[20]. In this case, the change in designated purpose of land plot is carried out through a simplified procedure, which includes:

- a decision of the landowner, submitted as an application to update the State Land Cadastre with the new designated purpose. The official registration of this change is completed only when the updated information is recorded in the State Land Cadastre.
- a justified conclusion from the urban planning and architecture authority on the possibility of locating the relevant facility on the land plot in compliance with requirements of legislative acts, construction codes, other documents mandatory under the legislation.
- exemption from the requirement to develop a land management documentation to change the designated purpose of a land plot.

Mapping the renewable energy potential: Mapping the renewable energy potential for the entire territory of Ukraine is currently at the initial stage. The Danish Energy Agency has recently in collaboration with the Technical University of Denmark published 'Increasing Onshore Wind Energy in Ukraine', a report which undertook pre-feasibility study within three provinces of Ukraine: Chernihiv, Kirovohrad, and Ternopil. The preliminary assessment shows promising prospectives for wind energy in Ukraine, with report finding LCOE for wind energy that is more competitive than in Germany. The report is expected to serve as the foundation for similar future work across all of Ukraine, such as measurement campaigns, environmental assessments, and a more detailed conceptual design of wind farms and/or hybrid wind-solar power plants.

The latest mapping of RES in Ukraine was presented in 2024 by the Renewable Energy Institute of the National Academy of Science of Ukraine in the form of the Atlas of Renewable Energy Potential of Ukraine[21]. The document presents indicators of the average annual technically available energy potential of Ukraine's renewable energy sources, which can be harnessed using modern technologies in such RES sectors as wind energy, solar energy, energy of small rivers, geothermal energy, and biomass energy. However, the materials presented in the Atlas are intended to provide general information on RES potential and cannot be used as a credible source of data for wind developers because of the methodological approach to the measurements. No special on-site wind measurements in line with European wind industry rules and standards have ever been performed at the national level. It is worth mentioning that other wind market players, such as wind farm developers, conduct their on-site wind measurements, and their inclusion in the process led by some governmental institution could be beneficial for the development of the respective state policy aligned with RED III.

Multiple use of sites: Ukrainian legislation allows multiple use of sites when it comes to the development of RES generating facilities. Thus, development and construction of wind farms and other RES generating facilities are allowed on lands designated *for industry, transport, electronic communications, energy, defence, and other special purposes,* regardless of the designated use of such land plots within the given category[22]. Energy infrastructure facilities could be located on

[20] Paragraph 8 of Clause 9-3 of Section V of the Law of Ukraine 'On Regulation of Urban Planning Activities' No. 3038-VI dated 17.02.2011.

[21] Атлас енергетичного потенціалу відновлюваних джерел енергії України: Видання третє, оновлене/за заг. ред. С. О. Кудрі. – Київ: Інститут відновлюваної енергетики НАН України, 2024. – 56 с. Available at: https://www.ive.org.ua/wp-content/uploads/atlas_2024_publication.pdf *(Accessed: 16.04.2025)*.

[22] Part 2 of Article 14 of the Law of Ukraine Law of Ukraine 'On Energy Lands and Legal Regime of Special Zones of Energy Facilities' No. 2480-VI dated 09.07.2010.

[23] Part 9 Article 20 of the Land Code of Ukraine.

lands of any category without requiring a change of the land category. The Laws of Ukraine allow locating energy objects on lands containing valuable soil[23]. Ukrainian legislation provides for a setback distance for wind power plants comprising modern 2+MW wind turbines of at least 700 meters[24].

Grid Connection: By the Law of Ukraine 'On the Electricity Market, the new electricity market was launched in 2019 in compliance with the requirements of the Third Energy Package and pursuance of Ukraine's commitments under the Energy Community Treaty and the Association Agreement[25]. It enabled the implementation of the Energy Community acquis communautaire in energy sector, including Directive 2009/72/EC concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC, Regulation *(EC)* No. 714/2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation *(EC)* No 1228/2003 and Directive 2005/89/EC concerning measures to safeguard security of electricity supply and infrastructure investment. According to the Law of Ukraine 'On the Electricity Market' the relations between market participants with regard to the connection to grids are governed by the Transmission System Code and Distribution Systems Code.

National Power Company Ukrenergo *(Ukrenergo)* is the Ukrainian TSO that was certified by the National Energy and Utilities Regulatory Commission of Ukraine as a European-style transmission system operator in accordance with the ISO model on December 17, 2021. The Energy Community Secretariat confirmed the compliance of this decision with the EU's Third Energy Package.

Wind projects are usually connected to the transmission system. The Transmission System Code suggests a clear, straightforward procedure for applying and obtaining the grid connection terms and conclusion, which are part of the grid connection agreement. Application for grid connection should be reviewed by the TSO within two working days, while grid connection terms are to be issued within 10 business days. Ukrenergo usually comply with these terms. Ukrainian grid connection legislation is being constantly reviewed and improved to align with the EU acquis applicable to the electricity market.

Technical Conditions *(the 'TCs')* validity period: According to the latest amendments to Ukrainian legislation, that were introduced by Law of Ukraine No. 4213-IX dated 14.01.2025, the validity period of TCs for grid connection is up to three years from the date of issuance. This period takes into account the timelines and stages of constructing the facility being connected to the grid.

The applicant has the option to extend the validity period up to six years following the date of obtaining the TCs, provided the following conditions are met:

- Design documentation is approved by the TSO and other relevant parties, including executive authorities, local self-government bodies, and organisations possessing essential information, documents, and initial data *(such as existing and planned engineering and transport networks, conditions, and restrictions)*.
- Grid connection fee is paid;
- Construction permit for the development of the wind power plant is effective and valid.

Grid connection agreement validity period: The duration of the connection agreement is determined by the TSO based on the validity period of the TCs and the time required for both parties to fulfil their obligations under such agreement.

If there are grounds for extending the Grid connection agreement and the validity of the TCs as stipulated above, the TSO can, upon the developer's request, conclude an additional agreement to extend both the agreement and the TCs.

Capacity booking Law of Ukraine No. 4213-IX has also introduced a capacity booking procedure. From now on, wind developers of wind power plants can reserve the necessary capacity for connection to the transmission system by entering into a capacity booking agreement with the TSO.

The capacity reservation is a paid service, with a cost of 5 EUR per 1 kW. The fee must be paid within 20 days of the date of signing the Capacity reservation agreement by depositing the required amount into the developer's escrow account. If the developer submits a grid connection application within the agreed timeframe *(up to 2 years)*, the paid reservation fee will be credited toward the grid connection fee. However, if

[24] Національний стандарт України. Вітроенергетика. Вітроелектростанції. Оцінення впливу вітроелектростанцій на навколишнє середовище. ДСТУ 8339:2015.

[25] https://eu-ua.kmu.gov.ua/wp-content/uploads/Zvit_EN.pdf

the developer fails to apply for the grid connection within the specified period, the TSO retains the paid reservation fee and allocates it toward the development of the transmission system.

Multiple connections: Another innovation of Law of Ukraine No. 4213-IX is that developers are permitted to connect facilities generating electricity from different types of technologies in one connection point *(so-called 'hybrid connections' or 'cable pooling')*.

In this case, the installed capacity of the developer's electrical installations may exceed the permitted *(contractual)* capacity; however, the electricity supply to the grid must not exceed the permitted *(contractual)* capacity at the connection point.

Additionally, energy-generating facilities of one producer may be connected to the infrastructure of another producer under the following conditions:

- The electricity supply capacity to the network from such electrical installations must not exceed the permitted *(contractual)* capacity at the connection point.
- Each generating facility must be equipped with a separate commercial metering unit.

Grid connection requirements: From a technical point of view, generating facilities must comply with the technical requirements described in detail in grid codes. In some circumstances the grid feasibility study is required. It covers available connections and infrastructure requirements, including construction or reconstruction/modernization of power lines and substations. Based on the approved feasibility study, grid operator provides a grid connection agreement including technical conditions for grid connection.

3.2.3. ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS

The EU Directives 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC and 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment were transposed into Ukrainian legislation in 2017 by the Law of Ukraine 'On Environmental Impact Assessment' *(the 'EIA Law')* and The Law of Ukraine 'On Strategical Environmental Assessment' *(the 'SEA Law')* in 2018.

The EIA procedure includes the following steps: *(a)* preparation of the EIA report by the company; *(b)* public discussion of the project; *(c)* assessment of EIA report and results of the public discussion by the state agency *(Ministry of Economy, Environment and Agriculture or relevant subdivisions on ecology and natural resources of the local state administrations); (d)* issuance by the state agency of the EIA conclusion *(the 'EIA Conclusion');* and *(e)* consideration of the EIA Conclusion before a company gets a permit for the planned activity. Ukraine has procured the enactment of all necessary secondary legislation to make the EIA Law completely operative in Ukraine.

According to the EIA Law, the wind power plants with two or more turbines or with a height exceeding 50 meters are subject to an EIA. This also applies to expansion, change, or updating of the conditions for carrying out the planned activity, including reconstruction, technical re-equipment, overhaul, and re-profiling of activities and facilities specified in the EIA Law, unless they have no significant environmental impact as per the Criteria approved by the CMU[26].

Exemptions from the EIA: The EIA Law states that activities not explicitly mentioned in the Law, as well as activities exclusively aimed at state defence, emergency response, restoration after armed aggression during the martial law, and the designation change of especially valuable lands, among others, are not subject to the EIA, provided that they meet the Criteria approved by the CMU[27].

SEA Regulations: The SEA Law was enacted in 2018. The SEA Law regulates relations in the field of environmental impact assessment, including impacts on public health, the implementation of state planning documents, and applies to state planning documents related to agriculture, forestry, fisheries, energy, industry, transport, waste management, water resource use, environmental protection, telecommunications, tou-

[26] Ukraine *(2017)* Regulation of the Cabinet of Ministers of Ukraine 'On Criteria for Determining Planned Activity, its Expansion and Change which are not Subject to the EIA' No. 1010 dated 13.12.2017. Available at: https://zakon.rada.gov.ua/laws/show/1010-2017-%D0%BF#Text *(Accessed: 05.05.2025)*.

[27] Ukraine *(2017)* Regulation of the Cabinet of Ministers of Ukraine 'On Criteria for Determining Planned Activity, its Expansion and Change which are not Subject to the EIA' No. 1010 dated 13.12.2017. Available at: https://zakon.rada.gov.ua/laws/show/1010-2017-%D0%BF#Text *(Accessed: 05.05.2025)*.

rism, urban planning, or land management *(schemes)*. It covers documents whose implementation will involve activities *(or contain activities and objects)* subject to environmental impact assessment procedures under the law or require assessment due to their potential effects on areas and objects of the nature reserve fund and ecological network *('areas with protected status')*, except for those related to the creation or expansion of nature reserve fund areas and objects. SEA is mandatory for state planning documents, such as strategies, plans, schemes, urban planning documentation, nationwide programs, state-targeted programs, and other programs and program documents, including amendments thereto, that are developed and/or subject to approval by a state authority or municipal authority.

Open and inclusive public discussion is the inevitable part of SEA procedure. The public discussion period cannot be less than 30 days from the date of publication of the notice. Comments and proposals collected during the public discussion period must be carefully reviewed and considered or dismissed on the substantiated and legitimate basis.

To provide centralised access to information on the state of the environment, to the registers of the Ministry of Economy, Environment and Agriculture, including Unified EIA and SEA Registers, and to perform a wide range of administrative services in the environmental field, Ukraine has launched the unified Eco-System platform. It allows organising public discussions, receiving comments and proposals from relevant state authorities and the public, monitoring EIA and SEA, and reviewing related documents. This system does not exempt EIA bodies and Customers from publishing information about public discussions on their official websites, mass media and, if necessary, on notice boards, however Eco-System makes it easier for citizens to access information and participate in public hearings and increases the integrity of EIA and SEA procedures.

Citizens and public associations, and/or unions also have the legal ability to litigate EIA-related cases. Such ability is confirmed by numerous court decisions of Ukrainian court. For example, in cases no. 640/17323/19 and 320/15882/21 the court with reference to the Aarhus Convention, confirmed the right of public to challenge violations of national environmental legislation and EIA-related documentation even without having direct material interest. Other environmental legislation linked to permit-granting procedure:

Bern Convention on the Conservation of European Wildlife and Natural Habitats:

Ukraine joined the Bern Convention in 1996, committing itself to the protection of wild flora, wild fauna and natural habitats, as well as to taking this into account in its planning and development policies.

This applies, in particular, to the Emerald Network – areas of notable environmental importance. This network is being created in accordance with the terms of the Bern Convention in non-EU countries. The area of the Emerald Network in Ukraine covers about 8 million hectares.

Although 29 years have passed since Ukraine joined the Berne Convention, to date, Ukraine still does not have a map with precisely defined boundaries *(including coordinates)* of the territories included in the Emerald Network. The existing map is claimed by wind developers and environmentalists to be incorrect and outdated.

Any activity that could potentially adversely affect habitats and species of European importance in the areas designated as Emerald Network by the Bern Convention Standing Committee should be carefully planned and assessed in accordance with international standards.

The Law of Ukraine 'On Environmental Protection' no 1264-XII dated 25.06.1991:

This is a framework law in the field of environmental law that establishes general principles and requirements for environmental protection and safety. It defines the general environmental rights of citizens, such as the right to a safe environment for life and health, participation in discussions and submission of proposals to draft regulatory acts, materials on the location, construction and reconstruction of facilities that may adversely affect the environment, access to information on the state of the environment, etc.

Article 51 stipulates that the design, location, construction, commissioning of new and reconstruction of existing enterprises, structures and other facilities shall ensure environmental safety of people, rational use of natural resources, and compliance with the standards of harmful impacts on the environment and establishes that projects of economic and other activities must include materials for assessing their impact on the environment and human health.

4. PERMITTING PROCEDURES FOR RENEWABLE ENERGY

Permit granting procedures in the European Union are complex, multilayered, and strategically positioned at the intersection of policy and regulatory frameworks governing land use and infrastructure development, including grid infrastructure. This area is now considered one of the most critical for Europe's decarbonisation, competitiveness, and energy security. Accelerating permitting processes is essential to achieving the EU's renewable energy targets for 2030, reaching climate neutrality by 2050, and ensuring that Europe has a stable investment framework for renewable energy.[28] An improved permitting framework is also seen as a key measure to enhance Europe's resilience and strengthen energy security.

Across the EU-27, permitting has long been perceived and recognised as a major bottleneck in the development of renewable energy infrastructure. Both at the EU level and within individual Member States, efforts to simplify and streamline permit granting processes have been increasing. The urgency of these reforms grew significantly following Russia's aggression against Ukraine, which triggered an energy crisis in Europe. In response, EU Member States agreed to accelerate renewable energy deployment in the short and medium term as part of emergency measures. One of the most significant actions proposed in 2022 under the EU's emergency regulation and the REPowerEU plan was the reform of permitting procedures, with a strong focus on speeding up and streamlining processes.[29]

4.1. EU LEGISLATION AND RECOMMENDATIONS

Currently, permitting of renewable energy projects is framed by the Renewable Energy Directive *(EU)* 2018/2001[30], as amended by Directive *(EU)* 2023/2413[31] *(RED III)*. The overall aim of RED III is to help the EU achieve its target of at least 42,5% renewable energy by 2030, contributing to climate neutrality by 2050. The Union's climate neutrality objective requires a just energy transition which leaves no territory or citizen behind, an increase in energy efficiency and significantly higher shares of energy from renewable sources in an integrated energy system.

In support of implementing RED III at Member State level, the European Commission has issued further guidance to the Member States. The key document is the revised 2024 Commission Recommendation *(EU)* 2024/1343 of 14 May 2024 on speeding up permit-granting procedures for renewable energy and related infrastructure projects.[32] The Recommendation aims to remove barriers that restrict or delay the deployment of renewable energy installations, particularly those related to permit-granting and other administrative procedures. It is complemented by a guidance document that highlights best practices to assist Member States in effective implementation.[33]

In the Recommendations and Guidance document, Member States can seek inspiration for effective implementation and relevant approaches. Approximately 30 individual recommendations are grouped under the following thematic areas:

- Faster and shorter procedures
- Facilitating citizen and community participation
- Improving internal coordination
- Clear, transparent, and digitalised procedures
- Sufficient human resources and skills

[28] See The future of European competitiveness, Mario Draghi report, In depth analysis and recommendations *(part B)*, The Draghi report on EU competitiveness

[29] See: EU Repower Plan, REPowerEU, including proposal for a Council Regulation laying down a framework to accelerate the deployment of renewable energy. EUR-Lex – 52022PC0591 – EN – EUR-Lex, EU Commission Guidance to Member States on good practices to speed up permit-granting procedures for renewable energy projects and on facilitating Power Purchase Agreements Accompanying the document Commission Recommendation on speeding up permit-granting procedures for renewable energy projects and facilitating Power Purchase Agreements EUR-Lex – 52022SC0149 – EN – EUR-Lex

[30] Directive – 2018/2001 – EN – EUR-Lex

[31] Directive – EU – 2023/2413 – EN – Renewable Energy Directive – EUR-Lex

[32] Recommendation and Guidance to Member States on good practices on speeding up permit-granting procedures for renewable energy and related infrastructure projects *(13 May 2024)* Recommendation and guidance on speeding up permit-granting for renewable energy and related infrastructure projects – European Commission

[33] Commission Recommendation was initially published on 18 May 2022 as part of the REPowerEU plan. See: Commission Recommendation of 18 May 2022 on speeding up permit-granting procedures for renewable energy projects and facilitating Power Purchase Agreements C/2022/3219. EUR-Lex – 52022SC0149 – EN – EUR-Lex. The current, 2024 version, complements recommendations regarding permitting reforms that need to be transposed by EU Member States by mid-2024 under the revised RED.

- Better identification and planning of locations for projects
- Easier network connection and efficient use of networks
- Innovative projects
- Monitoring, reporting and review

4.1.1. ADMINISTRATIVE PROCEDURES, REGULATIONS AND CODES *(ARTICLE 15)*

General principles for administrative procedures for permitting are defined in Article 15 of RED III, which are then operationalised by other provisions of RED III and the European Commission recommendations.

Article 15 aims to streamline and standardise administrative procedures for renewable energy projects. It requires Member States to:

- Ensure fair and transparent authorization procedures for renewable energy projects
- Remove unnecessary regulatory and administrative barriers to renewable energy deployment
- Promote integration of renewables into national planning and infrastructure development.

Ensure fair and transparent authorisation procedures for renewable energy projects: According to Article 15, administrative procedures shall be streamlined and expedited at the appropriate administrative level. There should be predictable timeframes established to process permit granting requests. The process should be transparent and proportionate and should not discriminate between the applicants. The process should also consider the particularities of individual renewable energy technologies. The text of RED III is complemented by the EU Recommendation, which states that the Member States should communicate to the applicants clear, complete and transparent information on all requirements and procedural stages, including complaint procedures.[34] Such information should be provided at the beginning of the permit-granting procedure for renewable energy projects and related infrastructure. Furthermore, a fully digital permitting process should facilitate the transparency of the process.

Remove unnecessary regulatory and administrative barriers to renewable energy deployment: Simplified and less burdensome authorisation procedures, including a simple-notification procedure, should be established for decentralised devices, and for producing and storing energy from renewable sources. Furthermore, addressing the regulatory and administrative barriers should be a continuous process for the Member States.

Promote integration of renewables into national planning and infrastructure development: Article 15 paragraph 3 encourages Member States to ensure that their competent authorities at national, regional and local level include provisions for the integration and deployment of renewable energy, including for renewable self-consumption and renewable energy communities. It does require that throughout this process, the network operators are consulted to align renewable energy development with the infrastructure development plans of the operators and demand response programs.

4.1.2. ORGANISATION AND MAIN PRINCIPLES OF THE PERMIT GRANTING PROCEDURE *(ARTICLE 16)*

Article 16 establishes a structured, time-bound, and transparent permitting process for renewable energy projects. The goal is to streamline administrative procedures, reduce delays, and ensure efficient coordination between competent authorities. The key provisions include:

- Comprehensive permit coverage – all approvals needed to build, repower, and connect renewable projects *(Art. 16(1))*
- Acknowledgment of application completeness deadlines *(Art.16(2))*
- Contact points for applicants and digitalisation *(Art.16(3)-(4))*
- Dispute resolution mechanisms and public disclosure of decisions *(Art.16(5)-(6) & Art.16(9))*
- Adequate resources & staffing to facilitate permit-granting *(Art.16(7))*
- Exclusion of certain time periods from permit deadlines *(Art. 16(8))*.

Comprehensive permit coverage: Article 16*(1)* sets a requirement to consolidate all relevant permits into a single, streamlined procedure rather than requiring multiple, separate applications. The permit-granting procedure should cover all relevant administrative permits for renewable energy pro-

[34] Recommendation and Guidance to Member States on good practices on speeding up permit-granting procedures for renewable energy and related infrastructure projects *(13 May 2024)* Recommendation and guidance on speeding up permit-granting for renewable energy and related infrastructure projects – European Commission

jects, including those combining different renewable energy sources, heat pumps and co-located energy storage, grid connection permits and where required, environmental assessments.

Acknowledgment of application completeness deadlines: Article 16*(2)* sets a time limit for authorities to acknowledge completeness of the application, which is 45 days for renewable energy projects outside the renewable acceleration areas and 30 days for the projects within the renewable acceleration areas. In case of incomplete application, authorities should request additional information without undue delay. The date of acknowledgement of the completeness of the application serves as a starting date for the permit-granting process.

Contact point to guide and facilitate permit application and permit-granting procedure: Each country must designate one or more contact points to:

- Guide applicants throughout the entire permit application and permit granting procedure, including the steps related to protection of the environment
- Act as a single interface, preventing applicants from dealing with multiple authorities separately
- Ensure that deadlines for the permit granting procedure are met
- Allow digital submissions and, by November 2025, fully electronic processing.

In line with the subsidiarity principle, Member States have flexibility how to implement this requirement as long as applicants are not required to contact multiple authorities.[35] The requirement to designate a single contact point can be implemented through different ways from assigning a single contact point responsible for ensuring the fulfilment of the deadlines for the permit-granting procedures to developing a fully-fledged streamlined 'one-stop-shop'.

There are different ways to design a 'one-stop shop,' and the EU's Guidance to Member States presents several examples of how such systems can be implemented. In some countries, the one-stop-shop serves primarily as an administrative interface between renewable energy developers and permitting authorities, providing procedural guidance. In others, it functions as a more centralised and integrated platform, directly involved in issuing permits.

For example, in Finland, a single contact point is responsible for advising project developers on permitting requirements and administrative procedures for renewable energy projects. This advisory role ensures that developers understand what steps to take, which permits are required, and how to engage with the relevant authorities. While the contact point facilitates procedural coordination, the responsibility for issuing permits remains with the competent sectoral authorities *(e.g. environmental, grid, or zoning bodies)*. A particularly innovative feature of the Finnish model is the 'single electronic service layer', which serves as a digital backbone for the one-stop-shop. This system connects all permit-granting authorities and project promoters, automatically tracks statutory deadlines, and covers 18 different permitting procedures, demonstrating a broad procedural scope.

In some cases, multiple one-stop-shops are established to manage different types of projects, depending on the technology, scale, or administrative jurisdiction. For instance, in Denmark, the Danish Energy Agency *(DEA)* functions as a one-stop-shop for offshore wind projects, where it not only coordinates but also prepares and issues permits directly, working closely with relevant authorities through an iterative coordination process. In contrast, for all onshore RE-projects, the DEA acts more as a single contact point, offering guidance while local authorities remain responsible for specific permitting.

The design of a one-stop-shop ultimately depends on the national governance structure and administrative capacity. Single contact point systems *(such as in Lithuania and the Netherlands)* may be more effective in smaller Member States, whereas decentralised approaches may be better suited to federal or regionally structured countries such as Germany or Spain.

Dispute resolution mechanisms and public disclosure of decisions: General public and applicants must have access to simple dispute resolution mechanisms concerning permit-granting procedures and the issuance of permits. Permit-related appeals *(including environmental aspects)* must be handled through the fastest available judicial and administrative procedures. Furthermore, permit decisions must be publicly available in accordance with the national law.

[35] Recommendation and Guidance to Member States on good practices on speeding up permit-granting procedures for renewable energy and related infrastructure projects *(13 May 2024)* Recommendation and guidance on speeding up permit-granting for renewable energy and related infrastructure projects – European Commission

The EU's Guidance to Member States further clarifies that the duration of court proceeding is out of the scope of the RED, but Member States should take needed measures to facilitate faster processing of litigation cases or introducing provisions limiting abusive litigation.[36] Several EU Member States have already introduced specific measures to streamline the duration of court proceeding, e.g. France reduced a number of appeals *(from 3 to 2)* and the Netherlands established that certain size of onshore wind and solar can only be appealed to the high court. Furthermore, some Member States introduced specialised environmental courts or engaged judges with a special environmental-permitting technical knowledge, which helps to ensure that court proceedings are dealt with faster. For example, Sweden has the Swedish Land and Environment Court, Finland has Finish Administrative Court and Denmark has several different Danish boards of appeals relevant to permitting procedures for RE-projects.[37]

Adequate resources & staffing: Another important element set out by Article 16 is that Member States must ensure qualified staff in permitting authorities and upskilling and reskilling of staff to handle increased permit applications. Member States should also provide support for local and regional authorities to further facilitate the permit-granting procedures.

Exclusion of certain time periods from permit deadlines: To prevent artificial deadline extensions by authorities, certain time periods are excluded from the official duration of the permit-granting process, unless they coincide with other administrative stages of permit-granting procedure. More specifically, the time taken for certain activities is not counted in the total duration of the permitting process unless it coincides with other administrative steps. The following activities are excluded:

- Project construction or repowering time
- Grid upgrades needed for stability and reliability
- Legal appeals and alternative dispute resolution timelines.

4.1.3. OVERRIDING PUBLIC INTEREST *(ARTICLE 16F)*

The concept of 'overriding public interest' is a legal principle that allows certain projects or policies to take precedence over other societal considerations, such as environmental protection, under duly justified and specific circumstances. The principle is crucial for accelerating the deployment of renewable energy projects by streamlining the permitting process.

RED III, Article 16f, requires the Member States to ensure that, in the permit-granting procedure, the deployment of renewable energy projects is presumed as being in the overriding public interest and serving public health and safety, when balancing legal interest in individual cases for the Habitats Directive *(Article 6(4) and Article 16(1), point (c)),* the Water Framework Directive *(Article 4(7)),* and the Birds Directive *(Article 9(1),*[38] *point (a)).* This implies that even if a renewable energy project affects protected species or habitats, it may still be permitted if no alternative solutions exist, and compensation measures are provided. Appropriate species conservation measures contributing to the maintenance or restoration of the populations of the species at a favourable conservation status need to be undertaken and sufficient financial resources and areas are made available for that purpose.[39]

The renewable energy projects include the planning, construction and operation of renewable energy plants, the connection of such plants to the grid, the related grid itself, and storage assets. In certain cases, and when duly justified, the application of the overriding public interest principle may be restricted to certain parts of the territory, to certain types of technology or to projects with certain technical characteristics in accordance with the priorities set out in the integrated National Energy and Climate Plans. In such cases, the Member States shall inform the European Commission of such restrictions, together with the reasons therefor.

[36] Recommendation and Guidance to Member States on good practices on speeding up permit-granting procedures for renewable energy and related infrastructure projects *(13 May 2024)* Recommendation and guidance on speeding up permit-granting for renewable energy and related infrastructure projects – European Commission

[37] In Denmark, boards of appeals relevant to RE projects are: the Danish Energy Board of Appeal *(Energiklagenævnet),* Danish Town and Country Planning Board of Appeal *(Planklagenævnet),* the Building Complaints Unit *(Byggeklageenheden),* and the Danish Environmental and Food Board of Appeal *(Miljø- og Fødevareklagenævnet).* The Danish Environmental and Food Board of Appeal is the relevant appeals board for decisions regarding environmental issues in Denmark.

[38] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy, Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds.

[39] COUNCIL REGULATION *(EU)* 2022/2577 of 22 December 2022 laying down a framework to accelerate the deployment of renewable energy.

4.2. IMPLEMENTATION IN THE EU. EXAMPLES FROM DENMARK AND SELECTED MEMBER STATES.

4.2.1. GOOD PRACTICE ON ORGANISATION AND THE MAIN PRINCIPLES OF PERMIT GRANTING PROCEDURE *(ARTICLE 16)*

Denmark has introduced a range of measures to streamline permitting procedures for renewable energy projects, in line with RED III. These include the establishment of a digital contact point, digitalisation of the permitting process, comprehensive guidance for authorities and developers and a six-month deadline for judicial complaint handling related to wind and solar projects.

As indicated in the previous section, the DEA acts as the single contact point, providing overarching guidance on permitting procedures for renewable energy projects. This is facilitated through the platform *veprojekter.dk*, which serves as the gateway for developers, including individual citizens which want to invest in small-scale household onshore turbines. The website features step-by-step guides for navigating the administrative processes for both onshore and offshore technologies.

For offshore wind projects, the DEA functions as a full one-stop-shop, coordinating and facilitating the planning and permitting process across all relevant authorities. In contrast, for onshore wind projects, the primary permitting authority is typically the municipality. Many onshore permitting steps can be completed via the digital portal *bygogmiljoe.dk*, which supports applications for building permits and environmental approvals. When other authorities are involved in a project, municipalities are required to direct applicants accordingly. The DEA, as the contact point, can monitor permitting deadlines based on reporting from these authorities.

The entire permitting process in Denmark is digitalised, with varying degrees of advancement across permit types. Notably, *bygogmiljoe.dk* offers a robust digital interface for submitting and managing land-based energy project applications.

To expedite legal processes, Denmark has also implemented a six-month deadline for handling complaints related to permitting decisions for wind turbines and solar projects. The Appeal Boards responsible for these cases must issue a decision within six months from the date a complaint is received. This deadline applies to both onshore and offshore renewable energy projects.

An innovative feature of Denmark's permitting support structure is the Renewable Energy Travel Team, comprising experts from the DEA, the Agency for Green Transition and Aquatic Environment *(Styrelsen for Grøn Arealomlægning og Vandmiljø)* and the Danish Planning and Rural Development Agency.[40] This team plays an important role in supporting municipalities with the rollout of onshore wind and solar projects. It provides:

- Professional advice on planning and environmental assessments
- Good practice examples
- Guidance on stakeholder engagement and citizen dialogue
- Expertise on Natura 2000 and habitat assessments
- And facilitates knowledge sharing among local authorities.

Denmark's approach exemplifies a coordinated, digital, and multi-level permitting system, balancing centralised guidance with local authority implementation to support deployment of renewable energy.

[40] Travel Team website: https://www.ve-rejseholdet.dk/ and the presentations from the 2nd Informal Expert Group on Accelerating permitting for renewable energy projects: https://ec.europa.eu/transparency/expert-groups-register/screen/meetings/consult?lang=en&meetingId=49906&fromExpertGroups=3885

4.2.2. GOOD PRACTICE ON OVERRIDING PUBLIC INTEREST *(ARTICLE 16F)*

In addition to the measures streamlining permitting procedures described above, Denmark established the principle of overriding public interest for renewable energy projects. The Danish *Executive Order on Contact point, renewable energy permit process and areas for promoting renewable energy no. 487 of 15th May 2025*[41] defines renewable energy as overriding public interest. Until climate neutrality is achieved, renewable energy projects are presumed to be of substantial public interest and to serve public health and safety in connection with the balancing of legal interests in individual cases. The balancing of legal interest is linked to environmental provisions e.g. of the international nature conservation areas and the protection of certain species *(including coastal protection measures),* Nature Protection Act, Hunting and Wildlife Management Act, surface water bodies and groundwater bodies as well as water basin districts. The overriding public interest presumption is relevant for the purposes of derogations foreseen in the Habitats, Birds and Water Framework Directives and concern protected habitats and species. Certain articles in these Directives foresee the possibility to apply derogations for certain projects, subject to certain conditions. One of these conditions is that the project is of overriding public interest. The inclusion of RE projects in the REDIII as part of the presumption of OPI simply facilitates compliance with the condition that the project is of overriding public interest. The other remaining conditions remain fully applicable, such as assessment of alternatives, etc. Appropriate mitigation measures for nature protection should be established for specific renewable energy projects.

Germany is another example where the principle of 'overriding public interest' contributed to substantially speeding up the permitting of renewable energy projects.[42] In 2022, Germany introduced the *Law on immediate measures for the accelerated expansion of renewable energies and further measures in the electricity sector*[43], which defines installation and operation of all installations to produce electricity from renewable energy sources as overriding public interest and in the interest of public safety. However, it is noted that this principle should not be applied in relation to balancing the interest of national defence. The introduction of the principle of 'overriding public interest' has led to less energy projects ending up in courts challenging the permitting of such projects.[44]

[41] Executive Order on Contact point, renewable energy permit process and areas for promoting renewable energy no. 487 of 15 of May 2025, as amended. *(VE-tilladelsesprocesbekendtgørelsen)*. https://www.retsinformation.dk/eli/lta/2025/487

[42] https://windeurope.org/newsroom/news/simplify-and-accelerate-is-the-way-forward-europe-still-takes-too-long-to-permit-wind-farms/

[43] Law on immediate measures for the accelerated expansion of renewable energies and further measures in the electricity sector: https://www.bgbl.de/xaver/bgbl/start.xav#__bgbl__%2F%2F*%5B%40attr_id%3D%27bgbl122s1237.pdf%27%5D__1695731478844

[44] https://windeurope.org/newsroom/news/simplify-and-accelerate-is-the-way-forward-europe-still-takes-too-long-to-permit-wind-farms/

4.3. COMPARATIVE ANALYSIS

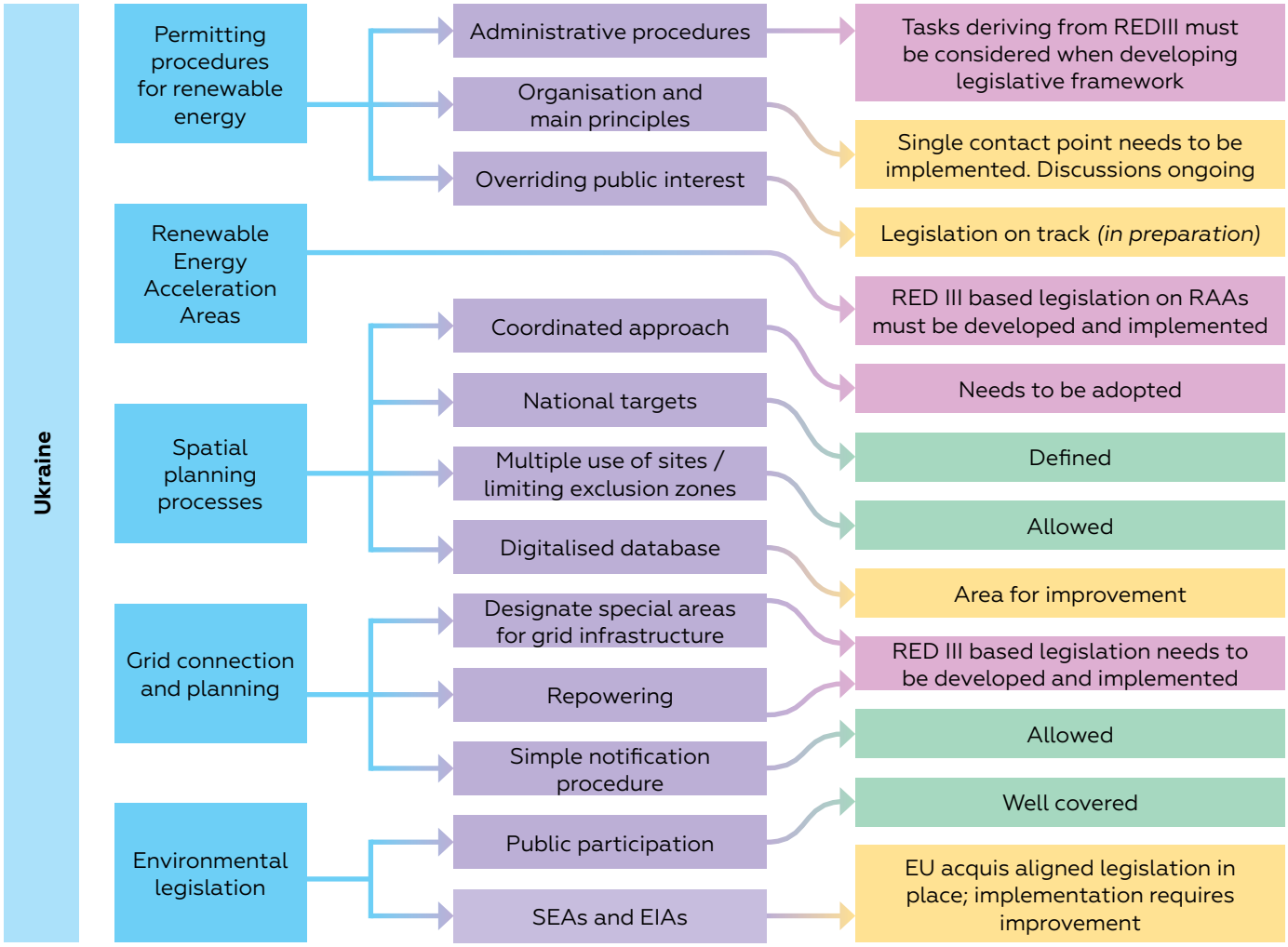
This section analyses the current administrative procedures for renewable energy permit granting in Ukraine and compares them with the requirements set out in RED III. A gap analysis is conducted to identify main discrepancies between Ukrainian legislation and EU requirements, highlighting the specific areas where legal and procedural revisions are necessary to align with the Directive's objectives.

4.3.1. ORGANISATION AND MAIN PRINCIPLE OF THE PERMIT GRANTING PROCEDURE IN UKRAINE

Overview of administrative procedures: In Ukraine, the development of wind power plants requires completion of multiple approving procedures, the main among which is obtaining the Construction permit *(or notification on commencement of construction works)*.

As mentioned in Section 3 of the Report, to receive the construction permit the developer must obtain urban planning conditions and restrictions including approval of height of structures to be constructed and EIA conclusion. Before the developer may file an application for urban planning conditions and restrictions, lands which are intended to be used for installing wind turbines should be designated as lands suitable for the development for industrial purposes. The existing procedure for the designation of the functional purpose of lands is explained in Section 3.

Figure 4.1. *Status Overview of Regulatory Framework for Permitting (onshore wind) in Ukraine*



Wind developers during the interviews cite lack of local urban planning documentation as the primary obstacle to swift wind project development permitting, as this document is crucial for land allocation and subsequent permitting. If the land plots earmarked for the wind power plant are properly zoned, all the necessary documents *(listed below)* can be obtained within the given timeframe.

The justified conclusion for land plots located outside the boundaries of the settlement, applicable when the local urban planning documentation is not developed for those lands, is not a solution for wind development due to the peculiarities as explained in detail in sub-section 6.3.1.

Wind farm projects require a mandatory EIA *(for further details, please refer to sub-section 8.3.1 below), which should be completed before applying for a construction permit. EIA procedures encompass surveys (ornithological, herpetological, etc.)* to assess local flora and fauna, evaluate project impacts, and determine mitigation measures. These surveys last for a minimum of one year, which is in line with the EU acquis, and present one of the most time-consuming parts of the preparatory stage.

Documents in the table below are listed according to the order in which the developer obtains the respective document before construction of the wind power plant can start. The table does not specify the stage of initial data collection for construction, which involves obtaining a grid connection permit and other technical information, which we elaborate more on in Chapter 7. It should be noted that Ukrainian legislation sets out precise timelines for issuing permits, which could be obtained after the conclusion of each part of the preparatory stage of project development as well as the construction permit.

DOCUMENT	ISSUING AUTHORITY	TIME FOR ISSUANCE OF THE PERMIT	LEGAL ACT
Urban planning conditions and restrictions *(including approval of the height of constructions on the aerodrome adjacent area).*	Municipalities *(authorised departments of village, settlement, town councils).*	10 working days	1) Law of Ukraine 'On Regulation of Urban Planning Activities' No. 3038-VI dd 17.02.2011. 2) Procedure for determining the maximum height and planning restrictions for land plot development in urban planning conditions and restrictions within the aerodrome vicinity and for information exchange for this purpose is approved by the Regulation of the CMU No. 1427 dd 23.12.2021.
Justified conclusion from the urban planning and architecture authority on the possibility of placing the respective facility on the land plot in compliance with requirements of legislative documents, construction codes, other documents mandatory under the legislation.[45]	Municipalities *(authorised departments of village, settlement, town councils).*	10 working days	Law of Ukraine 'On Regulation of Urban Planning Activities' No. 3038-VI dd 17.02.2011.
Expert review of the design documentation.	Qualified experts	30 calendar days	Law of Ukraine 'On Regulation of Urban Planning Activities' No. 3038-VI dd 17.02.2011. The Procedure of approval of construction design projects and conduction of their expert review is approved by the Regulation of the CMU No. 560 dd 11.05.2011.

[45] This document functions as the substitute for the urban planning conditions and restrictions for land plots outside settlements in instances described under Section 'Spatial planning and multiple use of sites'.

Conclusion on Environmental Impact Assessment.	Regional state administrations or State administrations in Kyiv or Sevastopol / Ministry of Economy, Environment and Agriculture of Ukraine.	15 working days following the completion of public hearings. The entire EIA procedure usually lasts from 4 to 6 months *(excl. time required for the performance of ornithological and other fauna & flora related surveys).*	Law of Ukraine 'On Environmental Impact Assessment' No. 2059-VIII dd 23.05.2017.
Construction permit *(or notification on commencement of construction works).*	State Inspectorate of Architecture and Urban Planning of Ukraine.	10 working days	Law of Ukraine 'On Regulation of Urban Planning Activities' No. 3038-VI dd 17.02.2011. Procedure for performance of preparatory and construction works is approved by the Regulation of the CMU No. 466 dd 13.04.2011.

Use of digital solutions for permitting in Ukraine: Just prior to the war, Ukraine was in the midst of a transformation of its planning system. The country made notable progress in digitalising construction permit procedures, centred around the E-Construction system *(officially – the Unified State Electronic System in the Construction Sphere),* launched in 2020. This platform acts as a single digital window for submitting applications, storing and approving project documentation, and obtaining urban planning conditions, restrictions, and commissioning certificates. The system has enhanced transparency and traceability, helping to reduce corruption risks in the sector.

While the E-Construction system streamlines many permitting processes, such as coordinating construction heights near aerodromes or approving objects exceeding 45 meters in height, it does not yet fully integrate all permit procedures required for developing onshore wind projects. For instance, it currently excludes the process of obtaining a Justified Conclusion from the urban planning and architecture authority on site compatibility with legislation, which requires developers to interact with many authorities and platforms outside the system.

On the other hand, it's worth noting that the discretion of permitting authorities is limited. For urban planning conditions and restrictions applications, municipalities may only reject them based on a narrow set of characteristics:

1. Incomplete documentation,
2. Inaccurate information in ownership or land-use documents, or
3. Non-compliance with local urban planning documentation.

If the local planning documents designate the area as suitable for wind power, grounds for rejection are minimal. In contrast, an application for a construction permit to the State Inspectorate of Architecture and Urban Planning may be rejected on a broader but still exhaustive list of legal grounds. These decisions can be effectively challenged in court, with judicial remedies often available and enforceable.

Thus, despite its achievements, the E-Construction system still faces operational challenges and gaps in coverage, particularly regarding complex renewable energy developments, which are further outlined in the textbox below based on the feedback received from wind developers.

Expert team discussed the peculiarities of the integration of E-Construction with other information systems with representatives of the Ministry for Communities and Territories Development during the interview on 23rd July 2025. The Ministry representatives explained that there is an idea to integrate the E-Construction system with other twelve national systems containing data necessary for the construction. This effort is currently on hold due to lack of financing.

Decentralised permitting system: The latest decentralisation reforms resulted in a decreased role of the state in spatial planning, especially urban development. Various permits are issued by different authorities belonging either to municipalities or the central government and such a decentralised approach sometimes creates additional administrative complexities for developers. For example, the developer must obtain separate urban planning conditions and restrictions *(which are the official pre-development conditionalities summarising all legally binding regulations)* in each territorial community on which lands the project will be located and accordingly obtain the same number of construction permits. Thus, if the project is located on the territory of three communities, the developer will have to obtain three urban planning conditions and restrictions, and three construction permits. In these circumstances the developer must divide the project into several phases with separate documentation for each phase. This problem can be solved by transferring the powers to issue urban planning conditions and restrictions for the object located on the territory of several territorial communities to Regional State Administrations *(or Regional Military Administrations for the period of the Martial Law)* as bodies authorised to exercise certain delegated powers of local self-government.

OPERATIONAL CHALLENGES OF E-CONSTRUCTION:

- System stability and accessibility: There are recurring issues with the system's uptime, occasionally preventing users from submitting applications or tracking their review status.
- Incomplete integration with legislation updates: When legal frameworks change, not all new documents or procedures are immediately supported by the system.
- Lack of technical support and confidentiality: Support is currently provided through public chat, which lacks the privacy and systematic structure expected from such platforms.
- Manual data entry and limited interoperability: The system does not automatically retrieve data from other public registries *(e.g., land cadastre or urban planning registers)*. As a result, users must manually upload land plot and planning data, with their further verification carried out by human reviewers rather than automated tools, increasing the risk of human error and inefficiency. In addition, while applying for a construction permit for an onshore wind power project which is classified under Consequence Class CC1 by the Ukrainian legislation, the system automatically changes the registered CC1 to CC2 when the developer uploads the EIA report. This technical inconsistency leads to incorrect classification of projects, creating risks of unjustified tightening of project requirements, delays in permitting procedures, and additional regulatory burdens for developers.

4.3.2. OVERRIDING PUBLIC INTEREST PRINCIPLE

Currently, Ukrainian legislation does not contain the concept of overriding public interest projects.

In the beginning of 2023, the CMU presented the draft Bill on the National Interest Projects in Energy Sector No 9138 to transpose into Ukraine's law the Regulation *(EU)* 2022/869 of the European Parliament and of the Council of 30 May 2022 on guidelines for trans-European energy infrastructure, amending Regulations *(EC)* No 715/2009, *(EU)* 2019/942 and *(EU)* 2019/943 and Directives 2009/73/EC and *(EU)* 2019/944, and repealing Regulation *(EU)* No 347/ 2013.

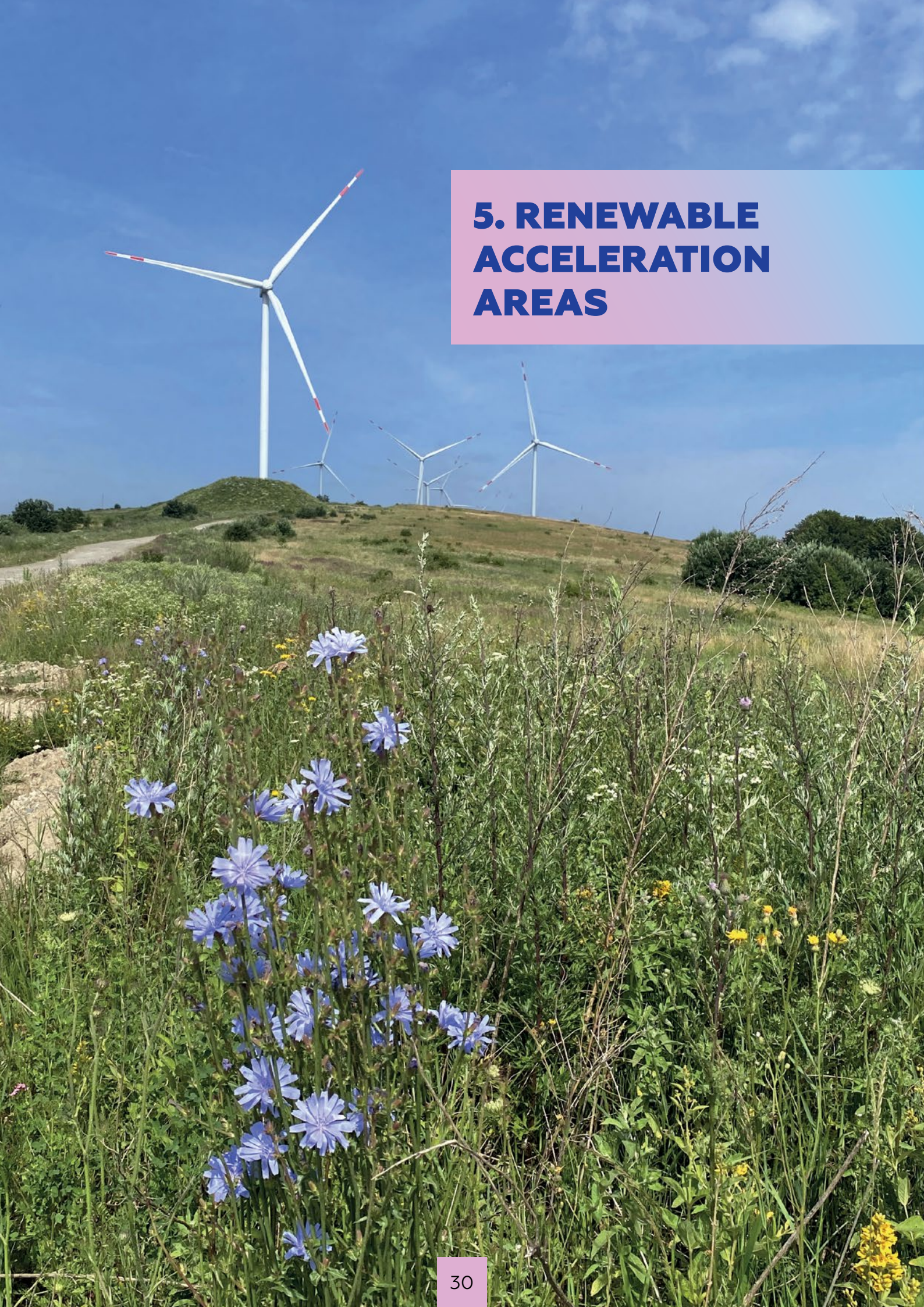
However, the draft Bill does not contain any provision that could be construed as transposing the concept of 'overriding public interest projects' under article 16f of the RED III Directive. At the time of writing the Report, the draft law has not yet been considered by the relevant committee of the Verkhovna Rada.

4.3.3. GAP ANALYSIS

The table below identifies the gaps between Ukrainian legislation and EU requirements, highlighting the specific areas where legal and procedural revisions are required.

RED III ARTICLE 16 + 16F EQUIREMENT	CURRENT UA LAW AND ADMINISTRATIVE PROCESSES	LINK TO THE RELEVANT LEGISLATION	GAPS & REQUIRED CHANGES
Permit process covers all approvals.	Multistage permit process: some approvals and permits are subject to further approvals and permits.	1. Law of Ukraine 'On Regulation of Urban Planning Activities' No. 3038-VI dd 17.02.2011. 2. Law of Ukraine 'On Environmental Impact Assessment' No 2059-VIII dd 23.05.2017 3. Air Code of Ukraine dd 19.05. 2011.	Establish the contact point to guide the developer through the entire permitting process.
Acknowledgment deadlines *(30/45 days)*.	Fixed deadlines for every single permit or approval *(i.e. each stage of the EIA procedure or construction permitting process has its deadlines)*. No requirement to complete all permitting procedures within certain time frame.	1. Law of Ukraine 'On Regulation of Urban Planning Activities' No. 3038-VI dd 17.02.2011. 2. Law of Ukraine 'On Environmental Impact Assessment' No 2059-VIII dd 23.05.2017 3. Air Code of Ukraine dd 19.05. 2011 4. Law of Ukraine 'On Electricity Market' No.2019-VIII, dd 13.04.2017.	Introduce legal time limits.
Contact point nominated.	Multiple agencies, both municipal, central government authorities and private companies *(Transmission and/or distribution grid operators)*, involved.	1. Law of Ukraine 'On Regulation of Urban Planning Activities' No. 3038-VI dd 17.02.2011. 2. Law of Ukraine 'On Environmental Impact Assessment' No 2059-VIII dd 23.05.2017 3. Air Code of Ukraine dd 19.05. 2011 4. Law of Ukraine 'On Electricity Market' No.2019-VIII, dd 13.04.2017.	Introduce time limits to complete permitting procedure as suggested in the RED III Directive.
Electronic permitting by 2025.	Partially implemented, though construction permit is issued electronically, paper-based documents prevail in majority of permit and approval procedures .	1. Law of Ukraine 'On Regulation of Urban Planning Activities' No. 3038-VI dd 17.02.2011. 2. Law of Ukraine 'On Environmental Impact Assessment' No 2059-VIII dd 23.05.2017 3. Air Code of Ukraine dd 19.05. 2011 4. Law of Ukraine 'On Electricity Market' No.2019-VIII, dd 13.04.2017.	Implement digital system.
Clear online guidance & manuals.	No guidelines and manuals. The developer should study / learn all the laws related to the wind project implementation; the texts of laws are publicly available in Ukrainian at the special Verkhovna Rada *(Parliament)* website; limited availability of English versions.	1. Law of Ukraine 'On Regulation of Urban Planning Activities' No. 3038-VI dd 17.02.2011. 2. Law of Ukraine 'On Environmental Impact Assessment' No 2059-VIII dd 23.05.2017 3. Air Code of Ukraine dd 19.05. 2011 4. Law of Ukraine 'On Electricity Market' No.2019-VIII, dd 13.04.2017.	Develop and publish online guidance and manuals for the developers both in English and Ukrainian.

Fast-track dispute resolution concerning permit-granting procedures.	Ukrainian legislation ensures the easy access to simple procedures for the settlement of disputes concerning the permit-granting procedure and the issuance of permits to build renewable energy plants. Decisions of administrative authorities could be contested either according to rules of administrative procedure or in court. Court procedures sometimes may be long without any possibility to predict the timeframes; however, everything depends on the complexity of the case and parties involved.	1. Court of Administrative Justice 2. Law of Ukraine No. 2073-IX 'On Administrative Procedure' dd 17 February 2022.	Separate study dedicated to dispute resolution concerning permit-granting procedures is required. The study should analyse peculiarities of Ukraine when it comes to dispute resolution in permit granting procedures and develop tailor-made recommendations regarding improvement of dispute resolution mechanism in line with the RED III Directive.
Public disclosure of permit decisions.	Permit-granting procedure outside renewable acceleration areas.	Data on construction permit and related documentation is publicly available. EIA procedure is conducted publicly *(including mandatory public engagement)* with the disclosure of all crucial documents.	Information is already publicly available
Overriding public interest.	Not implemented.	N/A	Legislation needs to be developed in line with RED III requirements.



5. RENEWABLE ACCELERATION AREAS

This chapter outlines the legal and procedural framework established under the Renewable Energy Directive *(RED III)* for the designation of Renewable Energy Acceleration Areas *(RAAs)*.[46] It presents the key regulatory requirements that EU Member States must follow — such as mapping criteria, environmental mitigation measures and simplified permitting procedures for RAAs — to fast-track the deployment of renewable energy while ensuring ecological integrity and public participation. The chapter draws on EU-level guidance and emerging best practices from Member States to illustrate how RAAs can be designed strategically to support both energy and climate goals, offering a valuable reference for Ukraine's own future legislative transposition and planning efforts.

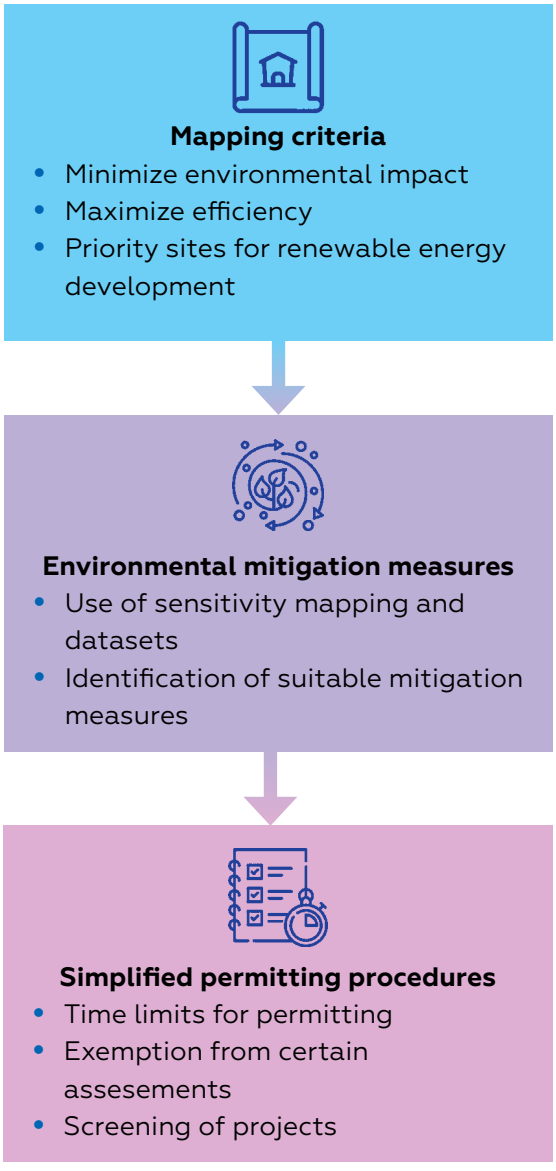
5.1. ESTABLISHING RAAS

RED III introduces the concept of RAAs, where renewable energy projects, including wind, solar, and waste heat integration, would benefit from simplified and expedited permitting procedures. The goal is to achieve faster approvals while ensuring compliance with environmental protection regulations. Following the adoption of RED III, all EU Member States have an obligation to designate specific land and sea or inland water areas as renewable acceleration areas by February 2026. Such areas *(RAAs)* should be identified based on criteria that minimise environmental impact and maximise efficiency.

To help the EU Member States identify renewable acceleration areas, the Commission is making available digitally consolidated datasets on a wide range of relevant energy and environmental factors through the Energy and Industry Geography Lab.[47] Further explanation and guidance is given by the EU Guidance on designating renewable energy acceleration areas.[48] This document advises on how to identify and designate Renewables Acceleration Areas *(RAAs)* for technologies such as onshore wind and solar, as required by RED III.

It supports the timely, effective, and environmentally sound implementation of Article 15c RED III, mapping out necessary processes and decisions to establish RAAs, as well includes summary of main onshore wind environmental impacts and possible mitigation measures.[49]

DESIGNATING RENEWABLE ENERGY ACCELERATION AREAS



[46] Directive *(EU)* 2023/2413 of the European Parliament and of the Council of 18 October 2023 amending Directive *(EU)* 2018/2001, Regulation *(EU)* 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive *(EU)* 2015/652

[47] https://energy-industry-geolab.jrc.ec.europa.eu/

[48] https://energy.ec.europa.eu/publications/guidance-designating-renewables-acceleration-areas_en

[49] https://managenergy.ec.europa.eu/document/download/af1ed39c-fe91-4124-aea1-2fc8ea1cfdb3_en?filename=study%20on%20the%20designation%20of%20renewables%20acceleration-MJ0224705ENN.pdf&prefLang=sl

5.1.1. MAIN CRITERIA FOR DESIGNATING RAAS

The EU legislation *(RED III Directive)* indicates several principles and criteria, based on which planning and designation of RAAs should be developed. These include:

Sufficient and homogenous areas *(Art 15c)* designated Renewable Energy Acceleration Areas should be 'sufficiently homogenous.' While the EU legislation does not directly define what this means, the combined size of RAA should be significant enough to contribute to the objective of achieving an increased share of renewable energy which is relevant to achieving EU's climate ambitions.[50]

Priority sites *(Article 15 c)* There are number of areas identified as priority for designation of RAAs and development of renewable energy. These include rooftops, transport infrastructure and their direct surroundings, parking areas, farms, waste sites, industrial sites, mines, as well as degraded land not usable for agriculture. This does not mean that RAAs cannot be designated in other types of areas.

Technology specific *(Article 16a)* RAAs should be established specifically for one or more types of renewable energy plants. There should be an indication of the type or types of energy from renewable sources that are suitable to be produced. This means that given RAA does not have to focus on all types of renewable energy technologies, and national authorities can designate for example areas for development of onshore wind and/or solar energy specifically.

Transparency and public participation *(art 15c, 15d)* Plans designating RAAs should be publicly available and in designing RAAs Member States shall ensure public participation. The issue of public participation is elaborated on more comprehensively in Chapter 8, it is a key procedural safeguard aimed at enhancing legitimacy, building public trust, and reducing local opposition to renewable energy projects.

5.1.2. AVOIDING AND MITIGATING ENVIRONMENTAL IMPACT

Avoiding significant environmental impact *(Art 15 c (1b))* RAAs should not be expected to have a significant environmental impact. Natura 2000 sites and areas designated under national protection schemes for nature and biodiversity conservation cannot be allocated as RAAs. Similarly, RAAs should not be established where there are major bird and marine mammal migratory routes as well as other areas identified based on sensitivity maps. To identify areas where the renewable energy plants would not have a significant environmental impact, the EU Member States are required to use 'all appropriate and proportionate tools and datasets such as wildlife sensitivity mapping, considering the data available in the context of the development of a coherent Natura 2000 network.

Mitigation measures *(Art 15c (b))* During the process of identifying RAAs, the authorities should assess and identify appropriate mitigation measures, to avoid or significantly reduce adverse environmental impact of the renewable energy plants and storage facilities in these areas. Mitigation measures should include appropriate steps to avoid the deterioration and/or disturbance of natural habitats and species. According to art. 15c*(1)(b),* subsection 2, the mitigation measures should be targeted to the 1) specificities of each identified RAA, 2) to the type or types of renewable energy technology to be deployed in each area and 3) to the identified environmental impact. Mitigation measures should be explained in the plans designating RAAs.

Environmental impact assessments Art 15c 2 Before their adoption, plans to designate RAAs should be subject to an environmental impact assessment process. This ensures that the environmental impacts of plans and programs *(in this case, renewable acceleration areas)* are assessed before they are adopted. If these areas could affect Natura 2000 sites, an additional layer of assessment *(appropriate assessment)* is required to ensure habitat protection.[51]

[50] The overall ambition is to achieve RES share in EU energy production at level of 42,5% by 2030.

[51] In this case, the plans designating the RAAs should be subject to an environmental assessment pursuant to Directive 2001/42/EC.

5.1.3. OTHER FACTORS TO CONSIDER IN PLANNING AND DESIGNATING RAAS

Approach – centralised or decentralised The EU legislation does not define competences of public stakeholders at national level, when it comes to designating RAAs. In practice the approach can be centralised, with designation of RAAs driven at the central administration/ministry level or decentralised, with more power given to local authorities. It depends on each Member State and the way other spatial planning processes are organised.[52]

Coordinated grid planning Even though not directly mentioned by the RED III Directive as requirement in establishing RAAs, while designating RAAs, authorities should look at grid impact assessments and grid plans, to identify potential constraints in implementing renewable energy projects in RAAs.

Use of GIS technologies The Recommendation on *speeding up permit-granting procedures* for renewable energy and related infrastructure projects, as well as Guidance on designating renewables acceleration areas mention the use of digital tools in mapping processes, related to planning and designating RAAs. Even though it is not mentioned by the RED III Directive as criterion, digital tools and use of GIS technologies should be factored in the process of developing RAAs.

5.1.4. PERMIT-GRANTING PROCEDURE IN RAA'S

Timeframe for permitting in RAAs, Art. 16a the permit-granting procedure in RAAs should not exceed 12 months for renewable energy projects onshore. If necessary, Member States may extend this period by up to six months. In such case, there should be clear explanation for such extension provided to the project developer. In case of repowering of renewable energy installations, for new installations up to 150 kW, for co-located energy storage, including power and thermal facilities, as well as for their grid connection, the permit granting procedure should not be longer than 6 months. This period can be extended by 3 months – with appropriate justification to the project developer.

Exemption from EIAs and Natura 2000 assessments Renewable energy installations, as well as repowering *(upgrading or modernising existing renewable plants),* grid connections for these installations do not require a separate Environmental Impact Assessment *(EIA)* under Article 2*(1)* of Directive 2011/92/EU, if they are not expected to have significant environmental impact. This derogation shall not apply to projects which are likely to have significant effects on the environment in another Member State. Similarly, in RAAs the renewable energy installations are not subject to an assessment of their implications for Natura 2000 sites, provided that these installations are not expected to have significant environmental impacts.[53]

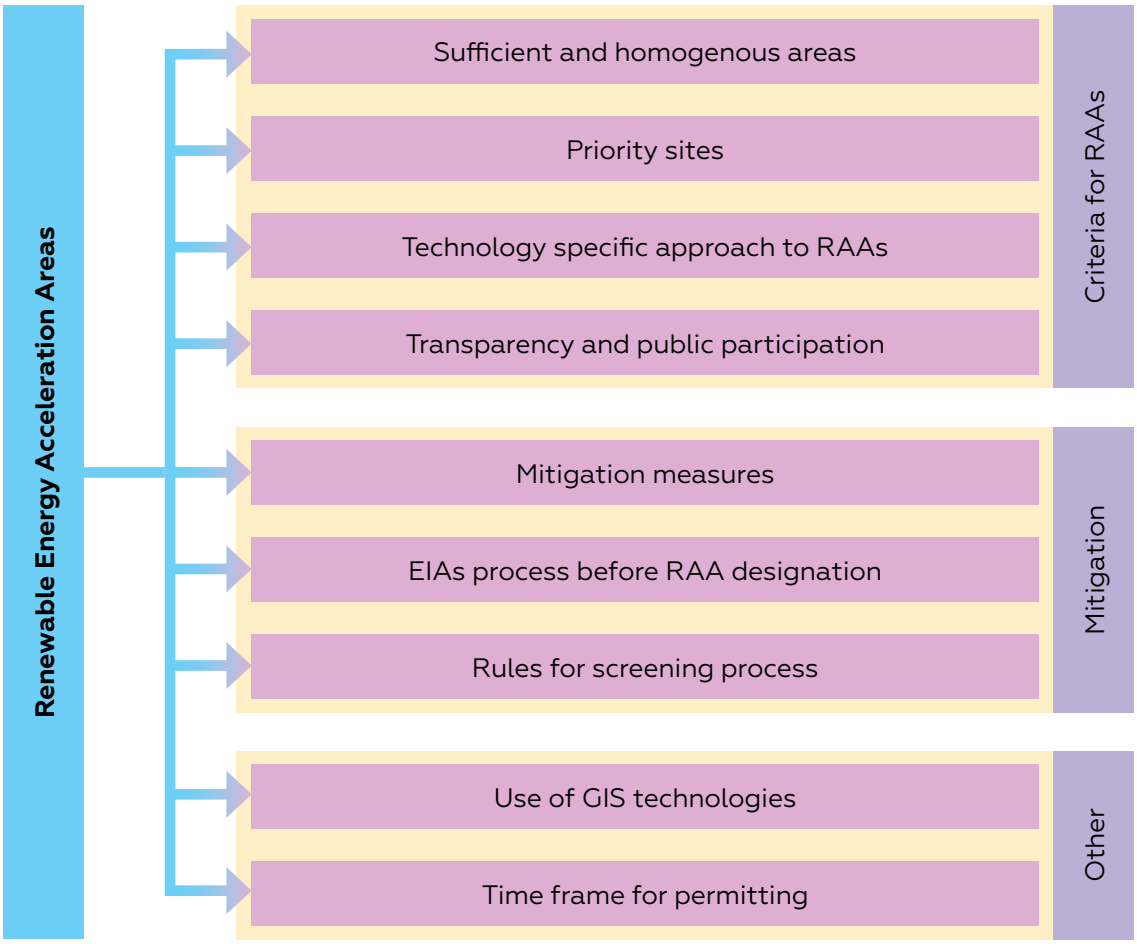
Screening process instead of EIA According to Art 16a *(4),* the project developer must provide details about the renewable energy project, including its compliance with relevant rules and measures for the designated renewables acceleration area and any additional measures taken to address environmental impacts. The screening process must be completed within 45 days after receiving sufficient information. For projects with an electrical capacity below 150 kW or repowering applications, the screening process must be completed within 30 days.

Tacit agreement According to Art 16a *(6),* the lack of reply by the relevant competent authorities within the established deadline results in the specific intermediary administrative steps to be considered as approved. There is an exception made for situation, where an environmental impact assessment is required as well as the final decision of the outcome of the permit granting procedure.

[52] See: https://managenergy.ec.europa.eu/document/download/af1ed39c-fe91-4124-aea1-2fc8ea1cfdb3_en?filename=study%20on%20the%20designation%20of%20renewables%20acceleration-MJ0224705ENN.pdf&prefLang=sl

[53] Exemption from Natura 2000 assesements and EIAs – derogation from Article 6(3) of Directive 92/43/EEC,

Figure 5.2. *Implementing RAAs in Ukraine – 'to do list'*



5.2. EXAMPLES FROM DENMARK AND OTHER SELECTED MEMBER STATES

When it comes to establishing RAAs there are three main processes that should be considered: a) identification and set up of relevant legal framework, transposing RED III Directive; b) exercise dedicated to mapping of areas which can be potentially designated for RAAs – which is connected to mapping on renewable energy potential and defining overall RES ambitions at national level c) identification of particular RAAs including environmental impact assessments and stakeholder consultation. This part will focus mainly on identification and set up of relevant legal framework, which includes establishing certain criteria for RAA designation, identifying relevant institutions engaged in the process and their roles, and transposition of RED III provisions in national legislation. Member States had a deadline until 15th of May to transpose RAA related provisions.[54] Overall, transposition of RED III provisions on RAAs require Member States to introduce changes in the national level in legislation focused on spatial planning, renewable energy including offshore wind, energy and climate policy, environmental law. A good overview of necessary steps and mapping of processes related to establishment of RAAs has been developed in 'Study on the designation of Renewable Acceleration Areas *(RAAs)* for onshore and offshore wind and solar photovoltaic energy'. To develop recommendations for Ukraine, we would look at how specific questions are addressed in different Member States.

Approach. Central versus local level In Poland mapping and identification of Renewable Energy Acceleration Areas is planned as a process managed at the central level. For example, in Poland, the approach to mapping and identifying Renewable

[54] This deadline is established under Article 36 of RED III, which sets 1 February 2026 as the date by which Member States must bring into force the laws, regulations, and administrative provisions necessary to comply with the Directive.

Energy Acceleration Areas *(RAAs)* under RED III reflects a two-level governance model involving both central and regional authorities. The process is managed centrally in terms of coordination and standard setting, while the designation of specific areas is delegated to the regional level. A draft law currently under parliamentary review introduces amendments to several legal acts to implement this framework. Under the proposal, the Ministry of Economy, Environment and Agriculture national guidelines for identifying and mapping suitable areas, ensuring alignment with renewable energy targets and climate objectives, and maintaining a public registry of designated RAAs. Meanwhile, regional governments *(voivodeships)* are tasked with identifying specific RAA locations within their territories, conducting Strategic Environmental Assessments *(SEA)* and public consultations, and ensuring consistency with existing spatial planning and environmental protection frameworks. This structured division of responsibilities is intended to balance national coordination with regional adaptation and stakeholder engagement.

Denmark transposed the RAA-related provisions in the RED III in Executive Order no. 487 of 15th of May 2025, which entered into force on the 21st of May 2025. The executive order transposes article 15c and 16a *(renewable energy acceleration areas)* and the optional 15e *(dedicated infrastructure areas)*. In general, the relevant RAA articles are transposed in a verbatim manner with few exceptions.[55]

In the Danish set-up, the responsible authorities for the RAA designation plan and the screening process are primarily the municipalities, following the existing structure in the Danish spatial planning system. Municipalities can thus designate areas for onshore wind turbines and solar panels as renewable acceleration areas on the condition that these areas fulfil the criteria for an RAA, that is excluding Natura 2000 sites and areas designated under national protection schemes for nature and biodiversity conservation; that the designation plan should undergo a Strategic Environment Assessment *(SEA)* and that appropriate rules are established for the RAAs on effective mitigation measures to be adopted for the installation of renewable energy plants and co-located energy storage, including assets necessary for the connection of such plants and storage to the grid, in order to avoid or significantly reduce any adverse environmental impact that may arise. In case of specific interest/demand by a developer or a municipality, a positive designation may take place based on such request provided that the area complies with the conditions for being an RAA. Thus, the designation plan still requires local spatial planning – the 'RAA-designation plan' only entails that different rules apply for the process *(exemption from EIA and shorter deadlines)*. Last, it is also a possibility for the Minister of Climate, Energy and Utilities to designate through an executive order. In such cases, the screening process is still within the municipality.

In case that the municipalities screening of the project shows that the project is highly likely to give rise to significant unforeseen adverse effects which cannot be mitigated by the measures identified in the plans designating acceleration areas or proposed by the project developer, the municipality can adopt further proportionate mitigation measures or, where such mitigation measures are not available, compensatory measures for the project to mitigate a possible impact. If neither further mitigation nor compensatory measures are available for the concrete project the municipalities can, as a last resort, opt for a monetary compensation scheme, where the developer would pay a certain amount to species protection programmes. The municipalities are the competent authority to make the decision on whether to apply the compensation scheme for a specific project. However, the decision on the concrete amount of the developer's payment to the compensation scheme would be decided by the Danish Agency for Green Transition and Aquatic Environment according to the rules set out in Executive Order the Fee Scheme for Compensation Nature in Acceleration Areas.[56] The species protection programs will be administered by the Danish Nature Agency and the Danish Agency for Green Transition and Aquatic Environment.

The monetary compensation scheme is only possible because Denmark chose to limit the technologies in RAAs to wind and solar and make use of the special exemption mechanism in article 16a*(5)*.

Fast tracking RAAs: The process of designation in Portugal follows a hierarchical structure, with RAAs being set out at national level, and being integrated into national law after having received the necessary approval by means of a strategic

[55] https://www.retsinformation.dk/eli/lta/2025/487

[56] Bekendtgørelse om gebyrordning for erstatningsnatur i fremskyndelsesområder https://www.retsinformation.dk/eli/lta/2025/500 The species protection programs will be administered by the Danish Nature Agency and the Danish Agency for Green Transition and Aquatic Environment.

environmental assessment. Portugal has adopted an interesting approach; the country went straight into designating the RAAs as described under Article 15 c – to speed up the process. So, the step of first mapping and identifying suitable areas for the deployment of renewable energy *(as outlined in Article 15b of the RED III),* has been omitted.[57] While this approach may expedite implementation, it also carries certain drawbacks, particularly regarding the thorough integration of environmental considerations into the designation of RAAs.

Public Participation: Public Participation in Germany can be showcased as a best practice example. Indeed, public participation is legislated by Article 9 of the German Planning Act as well as Articles 2, 3 and 4 of the Building Act. Under these acts, a structured and comprehensive framework ensuring public participation is established and makes formal participation mandatory in regional and urban land-use 'planning.'[58] Furthermore, when it comes to areas designated for renewable energy development, Germany demonstrates a strong model of public participation in spatial planning, with structured procedures that ensure citizen involvement throughout the planning process. In Germany, citizens are involved in every step of the spatial planning process. This is achieved through citizen dialogues and the ability for citizens to submit comments early on, *(during in the identification of search areas and definition of priority and reserved areas),* which are then reviewed by the regional planning association *(Regionalplanungsverband Bodensee-Oberschwaben (RVBO))*. Such participation in the early phases of spatial planning for RE development can create wider public acceptance regarding RE projects and positively affect acceptability. Furthermore, the regional planning association ensures that opportunities for citizens to participate are available on their website and that relevant information is available online.[59]

Area mapping: Estonia has followed an approach based on the 'selection process relies on elimination criteria.'[60] Estonia has based its elimination criteria on two projects carried out in 2020, ELME and IRENES. The result of ELME was the creation of detailed GIS maps showing how healthy and functional Estonia's natural areas are and where they deliver the greatest benefits, while the IRENES project built on those maps and added layers highlighting ecosystem 'hotspots,' trade-off insights, and where wind or solar power would work best. Thus, in the process of identifying and mapping suitable areas for the development of renewable energy, 'developers are encouraged to use this database, and local municipalities are urged to conduct initial assessments using it.' In addition to this, when carrying out the designation process of RAAs, field studies of some species and habitats, 'such as those on bird migration and nesting areas'[61] were also integrated into the designation process as well as to ensure more accurate and extensive data availability. Overall, by leveraging both existing datasets and recent studies on species and habitats, Estonia is positioned to accelerate the designation of Renewable Energy Acceleration Areas *(RAAs),* thereby enabling a more efficient rollout of renewable energy projects.[62]

Criteria for designating RAAs: The draft legislation in Poland sets out a comprehensive set of criteria for designating RAAs. Environmentally sensitive areas, including Natura 2000 sites and other nationally protected zones, are excluded from RAA designation. Similarly, critical bird migration routes and habitats of endangered species must be avoided to mitigate biodiversity impacts. Spatial suitability is another key criterion: RAAs must be sufficiently homogeneous and large enough to accommodate commercial-scale renewable energy projects. Preference is given to areas located on degraded lands, former industrial sites, or mining zones, particularly those in proximity to existing infrastructure. Grid availability plays a crucial role in the designation process. The draft law prioritises areas with existing or planned grid connections, to reduce connection costs and ensure project feasibility. In terms of land use compatibility, the law encourages multiple-use approaches, such as combining agriculture and renewable energy development, while explicitly avoiding areas with potential conflicts like urban expansion zones or military sites. Poland's approach also incorporates technology-specific zoning, allowing RAAs to be designated for types of renewables — such as onshore wind, solar PV, or biogas — based on the regional energy potential.

[57] Can Europe p38: Overview of Renewable Energy Spatial Planning and Designation of Acceleration Areas in Selected EU Member States

[58] Ibid p 21

[59] Ibid p48

[60] Ibid p15

[61] Ibis p15

[62] Ibid p 56

5.3. PERMIT GRANTING PROCEDURE OUTSIDE RENEWABLE ACCELERATION AREAS

While Article 16b sets out the rules and clear timelines for the permit-granting process outside RAAs, *(ensuring predictable and transparent permitting for renewable energy projects in non-prioritised areas),* whereas Article 16b targets projects outside the RAAs, where permitting-granting procedures may be longer and more complex due to environmental or land-use considerations. Amongst others, it should be kept in mind that RAAs are a sub-set of all the possible areas where renewable energy projects can be developed under different *(faster and simpler)* permitting rules, and their size may vary, depending on the technology and the characteristics of Member States' land and sea territories. The designation of RAAs should not lead to creation of 'no-go areas' for RE projects, RE projects may still be installed in those areas if they receive a permit subject to the relevant requirements according to Article 16b.

The RED III sets clear maximum deadlines for the duration of the permit-granting process, with the possibility for an extension in case of extraordinary circumstances. Specific requirements are thus to be followed as to maximum time limits for the permitting process, for setting up a single procedure for the environmental assessment that combines all relevant assessments for a given RE project and in terms of shorter timelines for repowering, for smaller installations and co-located energy storage.

Member States shall ensure that the permit-granting procedure shall not exceed two years for renewable energy projects located outside RAAs. *(If offshore renewable energy projects, the permit-granting procedure shall not exceed three years).* Where duly justified on the grounds of extraordinary circumstances, including where they require extended periods needed for assessments under applicable Union environmental law, MS may extend either of those periods by up to six months.

Where an environmental assessment is required *(pursuant to the EIA Directive or the Habitats Directive),* it shall be carried out in a single procedure that combines all relevant assessments for a given RE project. Where a RE project has adopted necessary mitigation measures, any killing or disturbance of the species protected under the specific provisions of the Habitats Directive[63] and the Birds Directive[64] shall not be deliberate.

As to repowering, Member States should facilitate the repowering of existing plants by ensuring a simplified permit-granting process, which does not exceed one year *(six months in renewables acceleration areas).* This may be extended by up to half of that duration, if justified by extraordinary circumstances, such as overriding safety reasons or substantial impacts on the grid or the original capacity, size or performance of the installation. Environmental assessments and screening obligations with regards to repowering are also simplified: such assessments should only focus on the potential impacts arising from the change or extension compared to the original project.

The timelines for the permit-granting procedure for the repowering of RE power plants, for new installations with an electrical capacity of less than 150 kW and for co-located energy storage, and for the connection of such plants, installations and storage to the grid, located outside RAAs shall not exceed 12 months, including environmental assessments where required by the relevant law. For offshore RE projects, the permit-granting procedure shall not exceed two years. Where duly justified on the ground of extraordinary circumstances, either of those periods may be extended by up to three months.

The authorities may also consider introducing complementary clarifications which specify the conditions allowing for the extension of the deadline or tasking relevant authorities with cooperating closely with the project developers to ensure that the agreed timelines are adhered to, including ensuring that the authorisation procedure does not exceed the agreed timelines in cases where several authorities are involved.

[63] Article 12*(1)* of Directive 92/43/EEC

[64] Article 5 of Directive 2009/147/EC

As to the Commission Recommendation *(EU)* 2024/1343, the section on Faster and Shorter Procedures is relevant in relation to the implementation of Article 16b, emphasising the need for Member States to have a continuous overview of their permitting procedures and assess their effectiveness by regularly assessing the procedures in place and identifying opportunities for improvement, e.g. thro ugh regular audits.

Case study DK and related best practice examples: The Guidance to the Member States on good practices to speed up permit-granting procedures for renewable energy and related infrastructure projects, SWD*(2024)* 124, flags good examples e.g. where Estonia, based on a government audit, identified the biggest bottlenecks and on basis of the result, prepared a new legislative package introducing shorter and more transparent permitting procedures. Denmark and Sweden have done similar exercises mapping the length of total permitting procedures, identifying bottlenecks and introducing new legislation and implementation initiatives. Other six Member States have received support from the Commission under the European Commission's Technical Support Instrument *(TSI)*[65] on mapping bottlenecks and introducing faster permitting procedures.

Examples of Member States that have introduced complementary clarifications specifying the conditions allowing for the extension of deadlines include Sweden, that specified that the deadline may be extended in case there is a need for time-consuming additions due to new regulations, information or guidelines or if the delay is due to external circumstances which could not be foreseen from the outset. Finland's legislation requires that that if more than one authorisation or administrative approval procedure is necessary for construction, upgrading, connection to the grid and operation of a renewable energy power plant, the responsible competent authorities need to cooperate to comply with the time limits. Also, the single contact point for project promoters is tasked with assisting the competent authorities in agreeing on processing timelines for their procedures, where appropriate. Additionally, the transposing legislation specifies the points at which the calculation of the time limit begins and ends, and the single contact point is tasked with monitoring the implementation of the deadlines. Denmark has introduced a single piece of legislation to align and unify the permitting process, covering permits for building, grid connection and operation of the RE power plants to give clarify on the time frame for the overall permitting process.[66]

5.4. STATUS IN UKRAINE AND GAP ANALYSIS

In Ukraine, there are no provisions on Renewable Energy Acceleration Areas, as framed by Articles 15c and 16a of the RED III Directive. However, NREAP 2030[67], envisages the development of the legislation for the designation of RAAs by Q3 2026. It looks feasible to introduce the RAAs in Ukraine as a pilot project for a specific selected region. Outcomes of the study 'Increasing Onshore Wind Energy in Ukraine' that has been recently conducted by the Technical University of Denmark could be the basis for identification of such area. RAAs can be identified at the stage of development of urban planning documentation, i.e. comprehensive territorial development plans. The process of identifying suitable RAAs and introducing RAAs legislation should integrate Ukraine's RES targets set out by NREAP 2030.

Development of the regulatory framework for RAAs requires close coordination and cooperation between the Ministry of Energy of Ukraine and the Ministry for Development of Communities and Territories of Ukraine, and the Ministry of Economy, Environment and Agriculture.

[65] Technical Support Instrument *(TSI)*

[66] The various permits are still regulated in and issued on the basis of the relevant sector legislation. A building permit, for example, is issued in accordance with the regulation is the Building Act. However, all relevant sector regulation refers to the 'VE-tilladelsespro cesbekendtgørelsen', in which the overall permitting deadlines are regulated in accordance with the provisions of REDIII.

[67] NREAP 2030 – https://zakon.rada.gov.ua/laws/show/761-2024-%D1%80#n381

6. SPATIAL PLANNING AND MULTIPLE USE OF SITES

This chapter provides an overview of the spatial planning requirements set out under the revised Renewable Energy Directive *(RED III),* as well as emerging good practices for spatial planning – in relation to renewable energy across the European Union. The chapter examines how Member States have implemented new obligations related to mapping renewable energy areas, enabling multiple land use, reducing exclusion zones, and leveraging digital tools such as GIS systems. Special attention is given to innovative and coordinated planning approaches in countries like Denmark, Germany, Ireland, which serve as examples of how spatial planning can align with EU climate and energy targets. The insights presented are intended to inform Ukraine's own regulatory development by highlighting practical, effective strategies for spatial planning harmonised with EU legislation.

6.1. SPATIAL PLANNING IN EU LEGISLATION

Spatial planning remains a national competence within the European Union, meaning that each Member State retains control over how land and sea areas are organised and regulated. As a result, spatial planning across the EU is a multi-layered and dynamic process, shaped by a combination of EU policy objectives, national legislation, and local and regional strategies. While the EU cannot impose binding spatial planning laws, RED III introduces significantly higher renewable energy targets for 2030. EU climate ambitions and following obligations, imposed on the Member States to significantly increase build-up, roll out of renewable energy projects have significant implications for spatial planning requirements and the way policies at national level should be shaped.

First and foremost, there is a clear expectation for the large-scale allocation of land and sea areas for renewable energy development. RED III sets a binding goal for the EU to reach a 42.5% share of renewable energy in final energy consumption by 2030, with an aspirational goal of reaching 45%. This will require not only a much faster rollout of renewable energy installations, supporting infrastructure, but also the dedicated allocation of key resources – including land.[68]

Secondly, to meet this demand of fast, large-scale renewable energy deployment, Member States must adopt proactive and forward-looking land-use planning policies. There is a need for optimising land use, through solutions such as multiple use of sites. Efficient spatial planning will be key in ensuring adequate space for renewable energy installations.[69]

Moreover, spatial planning is becoming an increasingly cross-sectoral task. Meeting the high ambitions set by RED III requires strong coordination between energy, environmental, agricultural, and regional planning authorities to ensure efficient, balanced and sustainable use of space.[70] This collaboration would be crucial to a) map and designate areas required to meet national energy targets, b) designate and develop Renewable Acceleration Areas *(RAAs)* c) balance climate and biodiversity goals – at the stage of spatial planning d) ensure public participation and social acceptance.

6.1.1. MAPPING AREAS FOR RENEWABLE ENERGY

The requirement to map and assess suitable areas for renewable energy development was first introduced in the European Commission's Communication of 8 March 2022, *'REPowerEU: Joint European Action for more affordable, secure and sustainable energy'.* In this communication, the European Commission calls on Member States to identify, assess, and secure land and sea areas suitable for renewable energy projects, in line with their National Energy and Climate Plans, contributions to the revised 2030 renewable energy target, and other relevant factors such as resource availability and the objectives of the EU Biodiversity Strategy.[71]

[68] Article 3(1) Directive 2023/2413 of the European Parliament and of the Council of 18 October 2023. 'Member States shall collectively ensure that the share of renewable sources in the Union's gross final consumption of energy is at least 42,5%. Member states shall collectively endeavour to increase the share of energy from renewable energy sources in the Union's gross final consumption of energy in 2030 to 45%.'

[69] Commission Staff Working Document: Guidance on designating renewable acceleration areas, 13th May 2024, p1.

[70] Commission Staff Working Document: Guidance on designating renewable acceleration areas, 13th May 2024, p26.

[71] REPower EU: Joint European action for more affordable, secure and sustainable energy

In RED III, Article 15b requires Member States to identify, by May 21, 2025, the land and sea areas necessary for the installation of renewable energy projects sufficient to meet their national contributions to the EU's 2030 renewable energy targets.[72] There are several criteria for mapping renewable energy development areas:

a. **Availability and compatibility:** As a first step, Article 15b *(1)* sets out what the objective of the mapping process is and describes it as having to identify 'domestic potential and available land surface, sub-surface, sea or inland water areas that is necessary for the installation of renewable energy plants and their related infrastructure.'[73] This means the identification process must consider two key factors. Member States must not only map areas that are physically available for renewable energy projects but also identify areas capable of accommodating the necessary supporting infrastructure, such as grid connections and storage facilities.
b. **Alignment with climate and energy plans:** Article 15b also requires that the identified areas align with each Member State's national contribution to the new energy targets for 2030. Moreover, the mapped areas should be also consistent with the National Energy and Climate Plans *(NECPs)* and other strategies and plans – such as strategies for agriculture, housing, transport.
c. **Technical suitability and potential:** Member States are required to consider the availability of energy from renewable sources and the potential for energy production using different technologies. This means assessing the potential for energy production and assessing natural resource potential — such as wind speeds, solar irradiation, or geothermal activity — and determining how suitable each area is for the deployment of specific technologies *(e.g., wind turbines, solar PV, or offshore wind platforms)*.[74]
d. **Grid integration and infrastructure:** Article 15b*(2)* emphasises the need to align spatial planning with energy system requirements. Member States must consider projected energy demand, the potential for demand-side flexibility, expected efficiency gains, and the need for system integration. Additionally, they must assess the availability of existing infrastructure — such as grids, storage facilities, and flexibility tools — or the potential to create or upgrade such infrastructure.[75] The aim is to ensure that renewable energy projects are planned in areas where energy can be efficiently stored, managed, and distributed.
e. **Environmental constraints:** Locating projects near existing infrastructure also helps to avoid the need for new grid lines that might otherwise cross environmentally sensitive areas.[76] Article 15b requires Member States to consider environmental constraints when mapping – which means, among others, avoidance of areas with high biodiversity value or with protected habitat. These provisions should be interpreted in line with EU environmental law, including Birds Directive, Habitats Directive and the Environmental Impact Assessment Directive.[77]

It is worth noting that to support Member States in the mapping process and identifying areas for renewable energy deployment *(including RAAs)*, which we elaborate more on in Chapter 5, the European Commission has developed several instruments and analyses. The Energy and Industry Geography Lab, European Commission's Joint Research Centre tool for geographical data related to energy, industry and infrastructure, provides a visual representation of consolidated information on a wide range of relevant energy and environmental factors.[78]

6.1.2. MULTIPLE USE-SITES AND LIMITING EXCLUSION ZONES

Favouring multiple use-sites *(15b (3))*: As a first requirement, Article 15b *(3)* states that 'Member States favour multiple uses of the areas referred to in paragraph 1'. Although the wording of this article is

[72] Article 15b RED III

[73] Article 15b *(1)* RED

[74] Revised RED III, Art 15b*(2)(a)*

[75] Revised RED III, Article 15b*(2)(c)*

[76] Overview of Renewable Energy Spatial Planning and Designation of Acceleration Areas in Selected EU Member States, Climate Action Network Europe publication, May 2024 available at: https://caneurope.org/spatial-planning-for-renewables/

[77] https://joint-research-centre.ec.europa.eu/scientific-tools-databases/energy-and-industry-geography-lab_en. There are also different data catalogues and energy, industry geography maps, relevant for RES potential mapping and RES development processes.

[78] https://joint-research-centre.ec.europa.eu/document/download/a467b1f8-9ed1-49e9-9a5b-0b3dd4c6de7d_en?filename=Accompanying%20note_0.pdf

broad, it essentially requires that in identifying the areas outlined in Article 15b *(1),* Member States should prioritise the mapping and identifying of areas which can support renewable energy production as well as other activities. The purpose of this requirement is to promote efficient land use by fostering synergies between renewable energy production and other functions, such as agriculture, forestry, industrial activity, or conservation. This approach also aims to minimise land-use conflicts, reduce spatial demands, ease grid integration challenges, and enhance public acceptance of renewable energy projects.[79]

There have been several reports and recommendations developed, on how to apply the above in practice. The Commission Guidance on RAAs *(Dec 2023 – SWD(2023) 454 final)* includes specific examples of multiple land use, such as use of industrial zones, rooftops, parking lots, and brownfields for developing renewable installations.[80]

Compatibility with pre-existing use *(15b (3)):* The second component of Article 15b *(3)* establishes that renewable energy technologies should be compatible with the pre-existing uses of those areas. In practice, this means that if a proposed renewable energy project would significantly disrupt or displace existing activities, the existing land use should take precedence. This requirement ensures that land is used responsibly and sustainably, and that renewable energy development does not come at the expense of established economic, cultural, or social practices that are vital to local communities and regions.

Limiting exclusion zones: Another point that should be considered, when carrying out the mapping exercise described in Article 15b, is the need to limit the exclusions zones – areas where renewable energy development is not permitted. While this specific requirement is not explicitly stated in Article 15b of RED III, it is strongly emphasised in the Commission Recommendation on speeding up permit-granting procedures, particularly in the section on 'Better Identification and Planning of Locations for Projects.' In the event that the government wants to exclude a certain zone from the mapping process, it is required that they provide 'clear and transparent information with reasoned justification on restrictions related to distance to housing and military or civil aviation zones.'[81] These restrictions must be evidence-based to ensure that land is used efficiently and to its full potential, while also respecting legitimate spatial planning constraints.

6.1.3. COHERENCE AND TRANSPARENCY

National, regional and local cooperation: Throughout the mapping process, Article 15b*(1)* requires that national, regional and local authorities of Member States coordinate together. It also highlights the need for cooperation with network operators. This collaborative approach helps to prevent gaps, inconsistencies, or overlaps in the mapping exercise and supports a more coherent and efficient planning process.

Transparency: Given that spatial planning and mapping is a site-specific exercise, this requirement aims to ensure that the competent authorities have access to relevant data and information to find optimal renewable energy project areas. Ensuring that competent authorities have access to accurate and transparent data, not only facilitates the efficient screening of potential project sites, but also helps reduce administrative delays, supports public trust, and promotes consistent application of planning criteria across regions. Ultimately, this contributes to a more predictable and streamlined permitting process in line with the goals of the Renewable Energy Directive III *(RED III)*.[82]

Use of modern technologies in mapping: The Commission Recommendation on speeding up permit granting procedures for renewable energy and related infrastructure acknowledges and promotes the use of advanced technologies as a way of sup-

[79] Overview of Renewable Energy Spatial Planning and Designation of Acceleration Areas in Selected EU Member States, Climate Action Network Europe publication, May 2024 available at: https://caneurope.org/spatial-planning-for-renewables/

[80] European Commission, Guidance on designating renewables acceleration areas (SWD) 2023) 456 final *(Publications Office of the European Union, 2023)* p. 4 https://energy.ec.europa.eu/publications/guidance-designating-renewables-acceleration-areas_en

[81] European Commission, Recommendation and guidance on speeding up permit-granting for renewable energy and related infrastructure projects, https://energy.ec.europa.eu/publications/recommendation-and-guidance-speeding-permit-granting-renewable-energy-and-related-infrastructure_en

[82] Revised RED III Directive, Art 15

porting the renewable energy transition. It suggests that Member States should explore greater use of modern tools, such as artificial intelligence and geospatial data, to accelerate and automate information processing where possible. Furthermore, the Staff Working Document accompanying the guidance on designating Renewable Acceleration Areas emphasises that digital tools, particularly *(GIS)* can play a crucial role in fulfilling the mapping obligations set out in Article 15b. As such, it is strongly recommended that Member States leverage the latest digital technologies and data-driven tools in the mapping process, as these can significantly improve spatial planning outcomes and streamline regulatory procedures across all levels of governance.[83]

6.2. SPATIAL PLANNING IN DENMARK AND ACROSS THE EU

6.2.1. GENERAL OVERVIEW, MAJOR BARRIERS TO ONSHORE WIND DEVELOPMENT

Spatial planning precedes the permitting process, setting the foundation for where and how renewable energy projects can be developed. The lack of adequate spatial planning remains a major barrier to renewable energy deployment, particularly for onshore wind across the EU. Often spatial plans do not designate land for renewable energy use and/or fail to reflect current renewable energy development needs. In the past, this forced developers to initiate lengthy and complex procedures to change land use classifications. Even where spatial plans existed, project developers across the EU *(e.g. Austria, Finland, Germany)* reported that the planning process takes too long, delaying project timelines and increasing investment uncertainty.[84] Moreover, plans enacted at regional and local level may differ from each other, as well as may not be aligned with national targets.[85] At present the EU Member States work to implement the RED III, and are revising their national legislation, also with the aim of improving their spatial planning processes.

Conflicting public goods and the need to share space: The expansion of renewable energy production and its associated infrastructure is taking place in a context of increasingly limited available space, raising the need for coexistence between competing land uses. A major barrier to effective spatial planning for renewable energy deployment lies in conflicts with other public goods, such as environmental protection, agriculture, urban development, transport corridors, and national security interests – including land reserved for military or aviation purposes. These tensions are particularly relevant for onshore and offshore wind, where military and air defence concerns, *(especially in the Baltics, Finland and Germany)*, have emerged as one of the most severe constraints, often due to interference with civil or military radar systems or concerns over light pollution. In over 20 Member States, land use conflicts – particularly with agriculture and urban expansion – have been identified alongside environmental challenges.[86] Moreover, the 'Not In My Backyard' *(NIMBY)* phenomenon adds another layer of complexity, with public resistance to wind farms near residential areas. One of the most persistent and widespread barriers is the use of

[83] European Commission, Guidance on designating renewables acceleration areas, SWD(2023) 456 final *(Publications Office of the European Union, 2023)* p. 4 https://energy.ec.europa.eu/publications/guidance-designating-renewables-acceleration-areas_en

[84] European Commission, Directorate-General for Energy, Technical support for RES policy development and implementation *(Publications Office of the European Union, 2023)* p. 54–55 https://op.europa.eu/en/publication-detail/-/publication/949ddae8-0674-11ee-b12e-01aa75ed71a1 accessed 15 March 2025.

[85] Up until 2022, such challenges have also been observed in countries like Italy, Spain, and Ireland Since then, many Member States have taken active steps to improve their spatial planning frameworks, and the situation has generally progressed — with several reforms underway and planning processes becoming more aligned with renewable energy targets However, inconsistencies between national and regional spatial planning perspectives persist in some cases. European Commission: Directorate-General for Energy, Eclareon, Oeko-Institut, SolarPower Europe, WindEurope, Tallat-Kelpšaitė, J., Brückmann, R., Banasiak, J., Valach, B., Surdea-Hernea, V., Szabó, J., Kokkonen, S., Bauknecht, D., Seebach, D., Vogel, M., Willems, G., Potestio, S., Sokolov, D., Bonadio, J.Chevillard, N., Technical support for RES policy development and implementation – simplification of permission andadministrative procedures for RES installations (RES Simplify) – Final report, Publications Office of the European Union, 2023, https://data.europa.eu/doi/10.2833/894296

[86] Ibid p.17

zoning and/or distance regulations to restrict or prohibit certain technologies, such as onshore wind *(e.g. Poland, Austria)*.

Digital technologies as critical enablers Digital tools and platforms play an increasingly vital role in enhancing spatial planning and permitting processes for renewable energy projects. Central to this is the development of integrated information platforms and the use of GIS-based mapping systems, which combine data layers such as administrative restrictions, environmental assessments, military and aviation constraints, and grid infrastructure. A key component of this approach is sensitivity mapping – the use of spatial data and environmental criteria to identify areas that are environmentally or socially sensitive and thus less suitable or potentially restricted for development. By leveraging digital technologies, particularly GIS tools, national administrations can speed up investments in renewable energy, reducing the risk of delays and investment in unsuitable sites. Across the EU-27, an increasing number of countries – including Ireland, Denmark, Estonia, the Netherlands, Belgium, and Germany – are adopting GIS-based systems to improve the efficiency of spatial planning and accelerate renewable energy deployment. These tools are also widely used to support environmental assessments, helping authorities and developers to anticipate and address potential impacts from the outset.[87]

Success depends on coordination, consistency and engagement. Another significant barrier to onshore wind development is the legal contestation of spatial plans. When spatial plans are insufficiently designed or lack sufficient public consultation, stakeholders opposed to renewable energy projects may challenge the plans in court, effectively blocking or delaying development of RES projects. Therefore, successful spatial planning for RES depends on strong coordination between authorities, consistency in the approach and across different levels of administration, and meaningful stakeholder engagement. Public acceptance can be significantly enhanced through early and transparent participation processes, allowing local communities and stakeholders to comment at the spatial planning phase and to comment on project concepts rather than react to finalised plans. Measures such as financial participation of municipalities, for example, linking project revenues to local services or infrastructure – can encourage more pro-active focus on RES development spatial planning. At the same time, early clarification of environmental, social, and land-use concerns during spatial planning can prevent disputes later and improve project viability. As highlighted in the Commission's Flagship Technical Support Project, integrated planning processes and participatory mechanisms are key enablers for accelerating renewable energy deployment across the EU.[88]

6.2.2. MAPPING AREAS FOR RENEWABLE ENERGY, USE OF TARGETS

Coordinated approach: interesting examples of coordinated approach, when it comes to mapping areas for renewable energy can be found in Ireland and Italy. In Ireland, the coordination of mapping suitable areas for renewable energy development is embedded in a multi-tiered spatial planning framework, beginning with the National Planning Framework *(NPF)* to 2040, which sets out strategic objectives for a low-carbon and climate-resilient society and – consequently – sets the level of ambitions for renewable energy infrastructure investments.[89] The NPF promotes the co-location of renewable energy with other land uses *(e.g., agricultural or industrial),* discouraging mono-use of land and supporting efficient spatial integration. Spatial planning is further structured across three levels – national, regional, and county – and supported by dedicated instruments such as the Renewable Electricity Spatial Policy Framework *(RESPF)*.[90] In Italy, spatial planning process for renewables remains under regional competence, At the same time, national legislation obliges relevant ministries, in collaboration with

[87] Monitoring the implementation of the Commission recommendation and guidance on speeding up permit-granting procedures for renewable energy and related infrastructure projects, https://ec.europa.eu/transparency/expert-groups-register/screen/meetings/consult?lang=en&meetingId=51835; https://cerre.eu/wp-content/uploads/2024/10/CERRE_Speeding-up-Renewable-Energy-Permitting-in-Europe_FINAL.pdf; https://webgate.ec.europa.eu/TMSWebRestrict/resources/js/app/#/library/detail/86128;

[88] The flagship project focuses on helping Member States to streamline and accelerate permitting processes for renewable energy. https://reform-support.ec.europa.eu/accelerating-permitting-renewable-energy_en

[89] https://www.npf.ie/project-ireland-2040-national-planning-framework/

[90] Renewable Electricity Spatial Policy Framework *(RESPF)* is currently under development, it is mentioned as one of points of action of Accelerating Renewable Electricity Taskforce.

the regions, to identify suitable areas for RES development. Regions should define suitable areas based on homogeneous criteria established by a ministerial decree, each region has own RES target to ensure balanced renewable energy development and balanced burden sharing, when it comes to achieving climate ambitions.[91]

National targets In Germany national targets guide spatial planning at the subnational level. In 2022. the Act to Increase and Accelerate the Expansion of Onshore Wind Energy was adopted. This law establishes a legally binding target of allocating 2% of Germany's land area to onshore wind energy by 2032, with an interim target of 1.4% by 2027. Each federal state *(Land)* is assigned a specific land-use target, determined based on factors such as local wind conditions and the extent of nature protection areas. To achieve these targets, the states are required to develop their own spatial planning strategies, following a uniform set of rules and modelling guidelines issued by the federal government. This coordinated, top-down framework ensures that national climate goals are translated into actionable spatial plans at the regional level.[92]

Data-driven policy on a practical level, when it comes to mapping and identifying areas for renewable energy development – as well as RAAs establishment – Croatia and Portugal offer examples of data-driven approaches. In Croatia, a pilot project in Zadar County, applied a stepwise sensitivity mapping approach. The process began with the identification of legal constraints and exclusion zones, followed by mapping of highly sensitive areas for wind and solar development. The remaining land was then assessed through multi-criteria analysis *(MCA)*, using environmental and socio-economic indicators to classify zones as low, medium, or high sensitivity. These sensitivity maps were cross-referenced with technical and natural potential to identify areas best suited for solar and wind energy.[93] In Portugal a Working Group for the Definition of Renewable Energy Acceleration Areas *(GTAER)* been tasked to identify areas with lower environmental and heritage sensitivity for the location of RAAs. After defining exclusion zones and developing geospatial datasets, the team produced draft maps of candidate renewable acceleration areas *(RAAs)*, under different policy scenarios.[94]

6.2.3. MULTIPLE USE OF SITES, LIMITING EXCLUSION ZONES ACROSS THE EU

'Land is a crucial resource for Europe's energy transition'[95] and ensuring that it is used efficiently and inclusively is one of requirements under RED III. The directive calls on Member States to prioritise multiple land use and minimise exclusion zones for renewable energy deployment, thereby unlocking additional space for clean energy development. However, Member States differ widely in how effectively they have integrated this principle, largely due to varying planning traditions and regulatory frameworks.

Multiple use of sites – forest areas As the RED III is being transposed, noticeable efforts can be seen in Member States to ensure that space is being used to its maximum capacity. A leading example is Germany, where multiple land use is a long-standing and well-integrated principle in spatial planning. Wind turbines are commonly installed in commercial forests, leveraging locations that are both remote from residential zones and already aligned with

[91] For more information on Italian case see: Article 20 of Legislative Decree No. 199 of 8 November 2021, as well as presentation from the Ministry of Environment and Energy Security, Regional Burden Sharing system in Italy, Expert group meeting on acceleration permitting for renewable energy projects 23rd October 2023 https://ec.europa.eu/transparency/expert-groups-register/core/api/front/document/100187/download

[92] Act to Increase and Accelerate the Expansion of Onshore Wind Energy' *(Gesetz zur Erhöhung und Beschleunigung des Ausbaus von Windenergieanlagen an Land)* was adopted in 2022 as part of the German government's effort to rapidly scale up renewable energy under the Easter Package *(Osterpaket)* — a comprehensive legislative reform to help meet Germany's 2030 climate and energy targets.See: Anja Hofelmeier,Federal Ministry for Economic Affairs and Climate Action, presentation during stakeholder event on permitting, 25.10.2024 https://ec.europa.eu/transparency/expert-groups-register/core/api/front/document/111865/download

[93] Integrated Renewable Energy Planning in Southeast Europe Pilot project: Integrated Wind and Solar Planning in Zadar County, https://eihp.hr/en/integrated-renewable-energy-planning-in-southeast-europe/

[94] Established by Order No. 11912/2023 in December 2023, the GTAER was tasked with identifying areas of lower environmental and heritage sensitivity suitable for the development of Renewable Energy Acceleration Areas *(RAAs)*. This initiative involved defining exclusion zones, developing geospatial datasets, and producing draft maps under various policy scenarios to facilitate the streamlined deployment of renewable energy projects. https://www.lneg.pt/en/project/acceleration-areas-for-renewable-energy/

[95] Land for Renewables: Briefing on Spatial Requirements for a sustainable energy transition in Europe, p3,:https://eeb.org/wp-content/uploads/2024/07/Land_for_RES_Report.pdf

existing infrastructure such as roads, power lines, and railway corridors.[96] In agricultural regions such as Lower Saxony and Brandenburg, land is simultaneously used for farming and wind energy production, as the physical footprint of turbines is minimal – around 1% of the total project area — allowing continued cultivation. This dual-use model offers economic incentives for landowners through leasing arrangements, while maintaining agricultural productivity.

While the multiple use of sites is not explicitly mentioned in the Planning Act, municipalities in Denmark have the discretion to promote multifunctional land use through their planning practices. Indeed, in accordance with § 11a of the Planning Act, the municipal plan designates the intended uses for an area *(see above)* and the local plan, regulated under §§ 13–15 of the Act, subsequently provides the binding framework regarding how development or land use may be implemented within that area. Thus, in Denmark the municipal plan enables the possibility of multiple use, and the local plan enforces it at site-specific level. Ringkøbing-Skjern Municipality can serve as a good practice for Denmark's multiple land use. Ringkøbing-Skjern's planning and development strategy from 2023 states that 'multifunctionality means that an area is used for more than one application². In the open countryside, for example, there can be both solar panels and farming in the same area. This creates added value, that can contribute to both the green transition and continued agricultural operations.'[97]

Agricultural land and RES Furthermore, the deployment of wind energy projects on agricultural and farmland areas is well-established in Germany, particularly in regions such as Brandenburg, Lower Saxony, and Schleswig-Holstein. Lower Saxony and Brandenburg is currently 'the strongest wind energy federal states in Germany',[98] ensuring that the pre-existing farmland and agricultural uses of these areas work harmoniously with renewable energy projects. Given that 'the space requirements of onshore wind take into account the entire project area, but the turbines themselves occupy only roughly 1% of that,'[99] wind energy infrastructure allows for the continued cultivation of crops or livestock grazing around the installations. Moreover, the multiple use of sites, in some regions, provides landowners with an economic incentive to allow for the deployment of renewable energy projects. Landowners will in some regions be able to lease portions of their land for these projects, while maintaining their traditional agricultural operations. This provides them with a passive revenue stream without affecting their agricultural or farming activities and consequently encourages the dual use of land.

Exclusion zones When it comes to exclusion zones, France offers a strong example of recent regulatory reform that has expanded opportunities for renewable energy deployment. Article L. 111-6 of the Urban Planning Code had previously prohibited the construction of photovoltaic *(PV)* plants outside urban areas within 100 meters of motorways and interchanges, and 75 meters of other major roads.[100] These buffer zones *(zones de recul)* were originally intended to preserve aesthetics, ensure public safety, and protect natural landscapes. However, with the adoption of Law no. 2023-157, these rules were significantly amended. The revised legislation now allows solar energy infrastructure, including PV and solar thermal installations, to be developed within these previously restricted zones.[101] This change has unlocked considerable space for renewable deployment – French authorities have already announced tenders for 240 MW of solar capacity along national highways, capitalising on underutilised transport corridors.[102]

[96] Bunzel. K., Bovet. J., Thrän. D., and Eichhorn. M 'Hidden outlaws in the forest? A legal and spatial analysis of onshore wind energy in Germany' and Experts clear the path for wind generation in Germany's forests – Power Engineering International

[97] Ringkøbing-Skjern Municipality Planning and Development Strategy 2023: https://rksk.dk/Files/Files/Om%20Kommunen/Planer-og-kort/Plan-og-Udviklingsstrategi-2023_hjemmeside_webtilgAengelig.pdf

[98] JustWind4All case studies, p 1 : DE case-study.pdf

[99] Land for Renewables: Briefing on Spatial Requirements for a sustainable energy transition in Europe, p10, :https://eeb.org/wp-content/uploads/2024/07/Land_for_RES_Report.pdf

[100] European Commission, Study on the designation of renewables acceleration areas *(Publications Office of the European Union, 2024)*, p. 29, available at: https://managenergy.ec.europa.eu/document/download/af1ed39c-fe91-4124-aea1-2fc8ea1cfdb3_en?filename=study%20on%20the%20designation%20of%20renewables%20acceleration-MJ0224705ENN.pdf *(accessed 16 March 2025)*.

[101] Ibid

[102] K. Million Ross, France plans 240MW solar capacity for highways *(Power Technology, 16 April 2024)*, available at: https://www.power-technology.com/news/france-plans-240mw-solar-capacity-for-highways/ *(accessed 16 March 2025)*.

Managing spatial use conflicts France has also made notable progress in addressing one of the most persistent barriers to onshore wind development: conflicts with aviation and military uses of airspace. These concerns, particularly around radar interference, had led to widespread project rejections in the past. Article 67 of Law no. 2023-175 introduces a more pragmatic approach. Instead of blocking projects outright, the law now allows them to proceed if developers agree to finance the technical solutions needed to mitigate radar impacts.[103] In parallel, a dedicated working group has been established to facilitate collaboration between wind developers and defence forces, streamlining the approval process.

Together, these reforms mark an important shift toward a more flexible and efficient approach to land use in France. By integrating renewable energy production into areas with existing or complementary uses – including transportation corridors, forested zones, and military airspace – France is dismantling key regulatory barriers and accelerating its clean energy transition in alignment with the goals of RED III.

6.2.4. GOOD PRACTICES ON COORDINATION AND USE OF MODERN TECHNOLOGIES

Coordination within government One good example of spatial planning reform and a coordinated approach to accelerating renewable energy deployment in Europe is Ireland. In June 2024, the Irish government launched the Accelerating Renewable Electricity *(ARE)* Taskforce, with the goal of identifying land areas suitable for renewable energy development in line with RED III. The ARE Implementation Plan includes the development of a national GIS platform for spatial planning of renewable energy, along with tools to support multi-level planning across national, regional, and local levels.[104] Another noteworthy example of effective inter-institutional coordination in spatial planning is Germany, which has established a multi-level, highly coordinated spatial planning system to accelerate renewable energy deployment – particularly for onshore wind. In addition to the binding national targets for land allocation to wind energy, Germany has implemented a robust coordination framework with a clear and consistent division of responsibilities. The Federal Ministry for Economic Affairs and Climate Action *(BMWK)* leads national policy, while state planning authorities are responsible for regional zoning and work closely with local governments to implement spatial plans.

The use of GIS is a common practice across the EU to support spatial planning for renewables. When it comes to focused support for onshore wind, in Germany Bavaria has developed Wind Atlas, an official GIS planning tool developed to support site selection and planning of wind projects.[105] GIS tools are used not only to map wind and solar potential but also to anticipate conflicts and identify environmental or infrastructural risks. In the Netherlands, for example, the publicly accessible Risk Map *(Risicokaart)* displays locations of hazardous industrial sites, pipelines, and chemical storage facilities.[106] In France there is the National GIS Portal *(Geoportail),* which helps in scoping EIAs, determining lest-environmental impact corridors, shows land use, archaeological sites, protected habitats.

Sensitivity mapping – combining different geospatial layers to create maps showing varying degrees of sensitivity is used by increasing number of Member States across the EU. This can be used to develop a spatial planning and environmental assessment tool used to identify areas that are environmentally, socially, or technically sensitive to certain types of development – such as renewable energy installations. For example, Spain has developed a zoning tool of the environmental sensitivity of the whole national territory.[107]

[103] France, Loi n° 2023-175 du 10 mars 2023 relative à l'accélération de la production d'énergies renouvelables *(Legifrance, 10 March 2023)*, available at: https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000047294244/

[104] https://www.gov.ie/en/publication/13d00-accelerating-renewable-electricity-taskforce/

[105] https://www.bayern-innovativ.de/en/detail/energie-atlas-bayern-neuerungen-september-2024

[106] https://www.risicokaart.nl/

[107] https://www.auxadi.com/blog/2021/02/08/spain-new-tool-to-help-environmental-zoning-for-renewable-energy/

It consists of two layers of information *(one for wind energy and one for PV)* that show the value of the environmental sensitivity index existing at each point on the map, and the associated environmental indicators. The Flanders region in Belgium has also developed wind farms sensitivity maps for birds and bats for assessing areas where siting wind turbines may pose a risk to bird or bat species. This tool classifies region into four risk categories.

The Netherlands has introduced a pioneering initiative – the Digital System for the Environment Act *(DSO – Digitaal Stelsel Omgevingswet)* – which serves as a comprehensive digital platform integrating multiple spatial and environmental planning functions. The DSO enables the submission of permit applications, notifications for specific activities, and access to a map viewer that displays all relevant spatial and environmental plans and regulations for a given location. It consolidates data from municipal environmental plans, provincial and national regulations, and sector-specific provisions – previously handled through four separate platforms.

It is worth noting that the integration into the DSO platform took several years to complete. While the system officially launched on 1 January 2024, it was preceded by a lengthy development and testing phase. The rollout was delayed due to the complexity of the task and the need to synchronize the digital system with the legal framework. Importantly, in the Netherlands, spatial planning and environmental assessment procedures are fully aligned under a single legal framework – the Environment and Planning Act *(Omgevingswet)* – providing a model of legal and digital integration.[108]

6.2.5. SPATIAL PLANNING IN UKRAINE

Local spatial *(urban)* planning documentation is a crucial factor affecting the readiness of specific areas for wind energy deployment. The absence of this documentation delays developers from applying for construction permits.

As noted earlier in the Chapter 3, the country lacks sufficient approved spatial development and settlement plans. This is due to outdated cadastral data, insufficient funding, a shortage of specialists, and limited access to reliable planning resources.

Starting January 1, 2025, a simplified process is available for changing the designated use of land plots located outside settlement boundaries, where no urban *(spatial)* planning documentation has been developed. This change follows the expiration of the detailed land use plan option on December 31, 2024. The simplified procedure allows for the use of a justified conclusion from the urban planning and architecture authority, which assesses the feasibility of locating the relevant facility on the land plot. This assessment must comply with the requirements of legislative acts, construction codes, and other mandatory documents as outlined in Chapter 3.

Wind farm developers argue that this simplified procedure has significant flaws.[109] Their primary concerns relate to landowner involvement and the difficulty of obtaining approval to site a wind farm across non-contiguous parcels of land. As a result, developers must break the wind farm project into multiple phases, equal to the number of wind turbines located on separate plots. This necessitates obtaining different construction permits for each phase, which is not only time-consuming and costly but also creates complications when connecting to the electrical grid

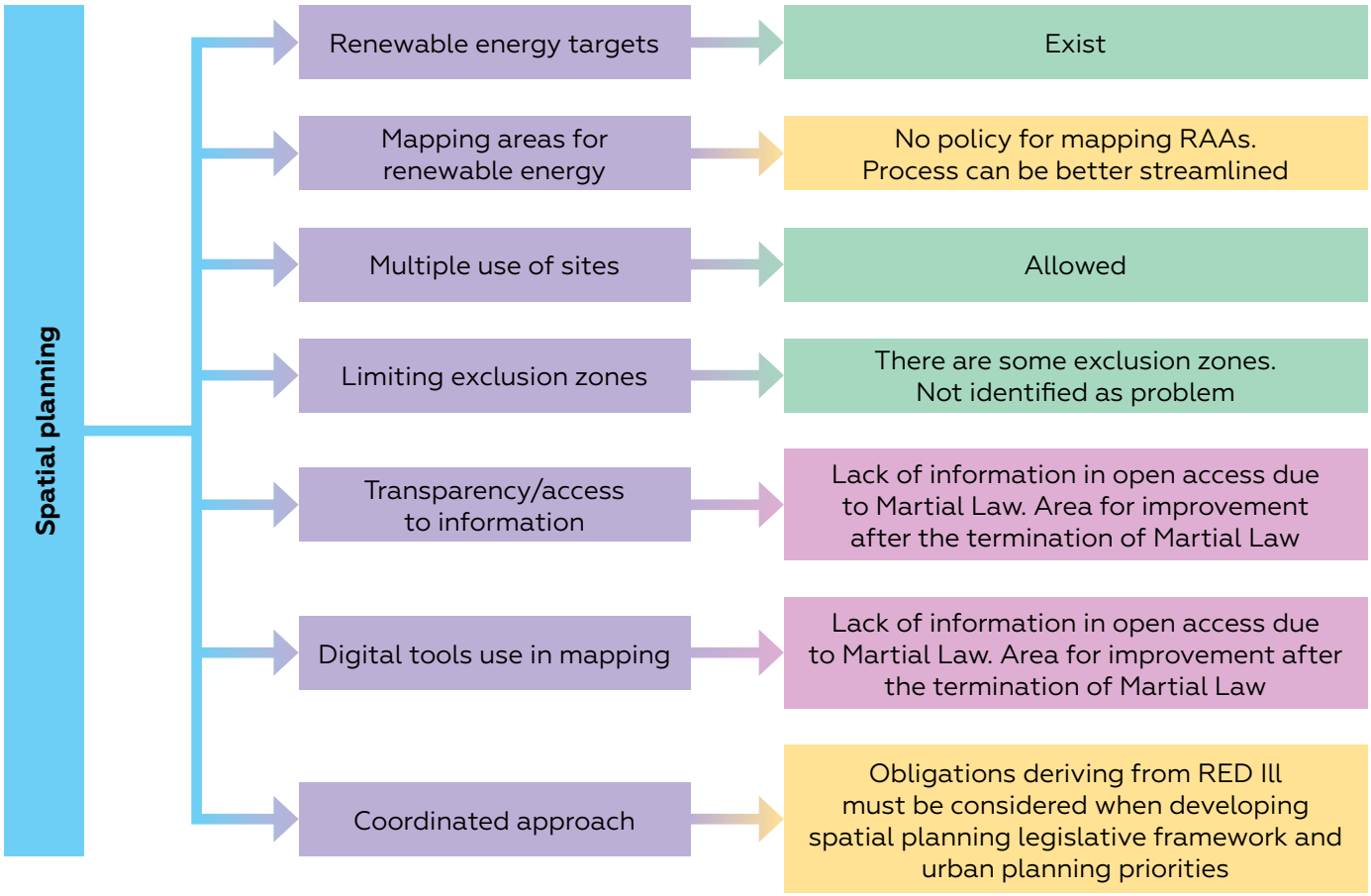
6.2.6. GAP ANALYSIS

Ukraine currently lacks a state policy for identifying and allocating territories for renewable energy projects. Additionally, the country does not have a national database containing reliable, verified, and market-oriented data on areas suitable for renewable energy deployment. Establishing such a resource is crucial for streamlining and expediting the development process of wind farms and other renewable energy facilities across Ukraine.

[108] Monitoring the implementation of the Commission recommendation and guidance on speeding up permit-granting procedures for renewable energy and related infrastructure projects, https://ec.europa.eu/transparency/expert-groups-register/screen/meetings/consult?lang=en&meetingId=51835; https://cerre.eu/wp-content/uploads/2024/10/CERRE_Speeding-up-Renewable-Energy-Permitting-in-Europe_FINAL.pdf

[109] Interview of wind developers.

Figure 6.1. *Spatial Planning Legal Framework in Ukraine – Alignment with RED III Requirements*



The absence of local spatial *(urban)* planning documentation is the primary factor causing delays in the permitting process. However, there are several other challenges – though less significant in terms of timeline — that complicate the development of wind farms in Ukraine.

Restrictions on acquisition of land plots: A foreign wind project developer operating in Ukraine through its subsidiary established in Ukraine is restricted in its rights to acquire ownership of land plots for the development of wind and other RES plant due to inconsistencies in Ukrainian land legislation.[110]

Easements pricing: There is no standard pricing for easements in privately negotiated agreements. This sometimes leads to landowners demanding excessively high prices, making it challenging for developers to reach a mutually acceptable agreement.

Restriction in land users' authority to change designated purpose of their lands: Throughout the entire process, developers rely heavily on the actions of landowners. According to current regulations, only landowners have the authority to apply for a change in the designated purpose of their land. Since most wind power plants are situated on leased land, developers face challenges in changing the land's designated purpose. This restriction limits their ability to apply for such changes. One way to address this issue would be to allow land users to apply for a change in designated purpose, provided they obtain subsequent approval from the landowner.

[110] Article 82 of the Land Code of Ukraine No. 2768-III dated 25.10.2001. Available at: https://zakon.rada.gov.ua/laws/show/2768-14#Text *(Accessed: 15 March 2025)*.

Installation of wind measurement masts: The allocation of land for the installation of wind measurement masts presents a significant challenge in the implementation process of wind projects. Current legislation does not allow for exceptions that would enable the installation of these masts without the necessary town planning documentation. Furthermore, under Ukrainian law, wind measurement masts are not classified as temporary structures. As a result, developers are required to treat them as permanent structures, which necessitates obtaining all relevant permits and making adjustments to town planning documentation and land use. This requirement adds approximately one year to the development timeline for wind energy projects, extending the total development duration to three to four years.

Inability to locate infrastructure and wind turbines in field protection belts: Before 2019, field protection belts were classified as forest lands and were regulated under the applicable legal framework. However, in 2019, their classification changed to agricultural lands in accordance with Article 22 of the Land Code of Ukraine. Concurrently, the 'Rules for the Maintenance and Preservation of Field Protection Belts Located on Agricultural Lands', approved by CMU Decree No. 650 on July 22, 2020, prohibit the construction of any structures within these field protection belts.[111] According to opinions from Ukrainian wind developers, these legal restrictions on construction in field protection belts negatively affect the development of wind energy projects.

Mapping areas for renewable energy: Ukraine has not yet implemented any policies to map areas for renewable energy deployment.

To effectively identify suitable territories for renewable energy, Ukraine should consider the following factors:

(a) The availability of RES and the potential for renewable energy production using various technologies, including both onshore and offshore options.

(b) the projected energy demand, considering the potential flexibility of the active demand response, expected improvements in efficiency, and energy system integration.

(c) the availability of appropriate energy infrastructure, such as grids, storage, and other flexibility tools, as well as the potential to develop or upgrade such grid infrastructure and storage capabilities.

The table below outlines the discrepancies between Ukrainian spatial planning legislation and EU requirements, specifying the areas where legal and procedural revisions are necessary. All activities listed aim to support Land Reform, Decentralisation Reform, and Open Data Policy.

EU LEGISLATION – RELEVANT PROVISIONS	CURRENT UA LAW AND ADMINISTRATIVE PROCESSES	LINK TO THE RELEVANT LEGISLATION	GAPS & REQUIRED CHANGES
Renewable energy targets, RED III Art 3.	27% share of renewable energy in gross final energy consumption.	NREAP 2030	
Mapping *(spatial planning)* – GIS, RED III Art 15b.	There is no relevant state policy. The process is currently led by various actors, such as scientists, business and NGOs.	N/A	To procure the process of mapping wind potential; the wind data should be measured in line with the European wind standards and rules, and the unified data base with accurate and precise information on wind potential in Ukraine to be created.

[111] Art.19 of 'Rules for the maintenance and preservation of field protection belts located on agricultural lands', approved by Cabinet of Ministers Decree No. 650 of 22 July 2020 – https://zakon.rada.gov.ua/laws/show/650-2020-%D0%BF#Text

Multiple use of sites, RED III, Art 15b.	Energy generating facilities could be placed on any land plot suitable for industrial development. Energy infrastructure for RE generating facilities could be located on any type of lands.	1) Land Code of Ukraine No. 2768-III dated 25.10.2001; 2) Law of Ukraine 'On Energy Lands and Legal Regime of Special Zones of Energy Facilities' No. 2480-VI dd 09.07.2010.	Multiple use of sites for renewable energy production and other land is allowed in Ukraine. Ukraine should consider further extension of possibilities for multiple use of sites, i.e. allowing erection of wind turbines on land plots based on the easement title.
Limiting exclusion zones, RED III Art 15b.	Legislation provides clear regulations requiring 700 meters buffer zones between wind power plants and settlements. Rules requiring that height and location of wind turbines should be coordinated and approved with civil and military aviation entities and authorities. Strict prohibitions for construction apply to nature reserve territories only. Development of other territories is possible if requirements of the environmental impact and other environmental protection legislation are complied with.	1) Air Code of Ukraine No. 3393-VI dated 19.05.2011; 2) The Law of Ukraine 'On Nature Reserve Fund of Ukraine' No. 2456-XII dd 16.06.1992; 3) Regulation of the CMU On issues related to the usage of the aerodrome adjacent area No. 1427 dd 23.12.2021; 4) State Standard Evaluation of the Environmental Impact of Wind Power Plants No. 8335:2015.	N/A
Use of digital tools, Commission Recommendation on speeding up permit granting procedures for renewable energy	No digital tools providing reliable, exhaustive and sufficient for commercially grounded decisions information about wind potential and areas suitable for renewable energy generating facilities development are available.		Consider development of a resource where investors could find reliable, proven and sufficient information about areas suitable for renewable development, wind/solar potential, grids availability etc.
Coherence in approach, RED III Art 15b	Governmental policy in renewable sector is framed in legislation and state programs; however, there is no public authority responsible for monitoring the progress in achievement of renewable energy targets.		Establish task force structure responsible for shaping of the governmental policy in renewable energy sector specifically and for monitoring the progress in achievement of renewable energy targets.

7. GRID CONNECTION AND PLANNING

This chapter examines the evolving role of electricity grids in enabling large-scale renewable energy deployment, as defined under the revised Renewable Energy Directive *(RED III)* and complementary EU policy initiatives. It highlights how the transition to a more decentralised, flexible, and digital energy system requires a rethinking of grid planning, permitting, and connection procedures — elements increasingly viewed as strategic infrastructure. While Ukraine's current priority remains rebuilding core energy infrastructure, this context offers a unique opportunity to design its future grid systems in line with modern EU standards. The chapter explores relevant RED III provisions, emerging good practices from EU Member States, and Ukraine's current legal and technical framework, identifying key bottlenecks and alignment needs to support an accelerated and resilient energy transition.

7.1. GRID CONNECTION AND PLANNING IN THE EU LEGISLATION

The rapid expansion of onshore and offshore wind, solar PV, and decentralised energy generation is outpacing grid development across Europe. In general, many national and regional grids were not originally designed to handle highly variable, decentralised, two-way electricity flows, creating the need for a shift towards more flexible, smart grid systems. While this is not an immediate challenge for Ukraine – where the current priority is rebuilding basic energy generation and power supply capacity – the ongoing reconstruction effort presents a unique opportunity as Ukraine can design its future energy system with a long-term perspective, embedding flexibility and smart solutions from the outset.

Grid development and simplified grid connection procedures are recognised as critical factors for achieving Europe's renewable energy targets. RED III considers grids as strategic infrastructure that must be proactively expanded and modernised to enable the large-scale integration of renewable energy. RED III requires Member States to ensure that grid development plans are regularly updated to align with national renewable energy targets *(Article 15c)*. Member States should better coordinate spatial planning with grid investments to facilitate accelerated grid infrastructure deployment. This includes also designating special areas for grid projects *(Article 15e)*. Moreover, RED III places strong emphasis on the need to fast-track permitting procedures for the grid connection of renewable energy projects *(Article 16b)* and grants renewable energy projects priority access to the grid. There is increased focus on repowering and allowing testing for innovative projects *(so-called regulatory sandboxes)*.

The provisions of RED III are complemented by additional EU initiatives, notably the EU Action Plan for Grids *(2023)*, and the European Commission's updated Recommendations of 13 May 2024 on speeding up permit-granting procedures for renewable energy and related infrastructure projects.[112] The EU Action Plan for Grids *(November 2023)* highlights the urgency of grid expansion and introducing regulatory incentives for forward-looking *(anticipatory)* grid build out. The Recommendation calls on Member States to integrate renewable and electrification needs into network development plans, ensure transparency and digitalisation of grid connection procedures, including provision of clear information on grid capacities.[113]

7.1.1. ACCESS TO GRID AND GRID CONNECTION PROCEDURES

Grid planning Across the EU-27, many national grid development plans are currently not aligned with renewable energy targets, significantly underestimating future wind and solar capacity. This creates a risk of grid congestion and inadequate preparation for the integration of renewables. Therefore, better grid planning, along with the effective implementation of the relevant provisions of the RED III and the EU Action Plan for Grids, is essential to support the energy transition.[114]

[112] There are also several other relevant legislative instruments, including the TEN-E Regulation (Regulation *(EU)* 2022/869), the Electricity Market Regulation, and the Electricity Market Directive. However, as this report focuses on RED III and permitting-related issues, these documents are not discussed in detail.

[113] Communication from the Commission, An Eu Action Plan for Grids *(COM/2023/757 final)* https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2023%3A757%3AFIN&qid=1701167355682

[114] Putting the mission in transmission: Grids for Europe's energy transition, EMBER report, March 2024 https://ember-energy.org/app/uploads/2024/03/Grids-for-Europes-Energy-Transition-Report-1.pdf

The EU Action Plan on Grids places particular emphasis on coordinating long-term planning at both the transmission and distribution levels. Transmission System Operators *(TSOs)* and Member States are required to design and develop sufficient electricity transmission projects in line with the EU's 2030, 2040, and 2050 infrastructure needs, based on the National Energy and Climate Plans *(NECPs)*. Planning processes on the side of both TSOs and Distribution System Operators *(DSOs)* should actively involve network users, such as renewable energy developers, to ensure that future demand is accurately reflected. Furthermore, the planning of grid infrastructure must be aligned with the development of other critical infrastructure, including hydrogen networks, energy storage facilities, CO_2 transport systems, and charging infrastructure for green mobility.[115]

The European Union Agency for the Cooperation of Energy Regulators *(ACER)* goes further, emphasising importance of coordinated grid planning and grid investments at regional, multi-country level as well as taking a cross-sectoral perspective. ACER recommends that swift implementation of integrated planning across the local, national and EU levels, that would include taking account of technologies such as hydrogen and hydrogen-related energy value chains, scenarios for electrification of district heating and heat pumps. To speed up investment in regional infrastructure, the existing bottom-up planning approach could be complemented with a top-down approach, with TSOs tasked by policymakers to address regional infrastructure gaps.[116]

Designating special areas for grid and storage projects RED III, in article 15 e emphasises that Member States may designate specific areas for grid and storage infrastructure necessary to integrate renewable energy, ensuring these plans align with renewables acceleration areas and avoid or exclude Natura 2000 and nationally protected nature sites. Such infrastructure areas must undergo a strategic environmental assessment and include appropriate rules and mitigation measures to prevent or reduce adverse environmental impacts. Under justified circumstances, including the urgency of achieving climate and renewable energy targets, Member States may exempt eligible grid and storage projects within these designated areas from certain environmental assessments, provided they comply with established mitigation rules. A streamlined screening process – completed within 30 days and based on existing environmental data – must be conducted for exempted projects to identify any unforeseen significant effects.[117]

Grid connection Grid connection, or network connection, is one of the areas regulated by the specific network codes. These rules aim to develop a harmonised electricity grid connection regime, as well as efficient and secure operations.[118] At EU level, grid connection agreements between developers *(project owners)* and utilities *(mainly DSOs and TSOs)* are governed mainly by the Electricity Directive, which emphasises 'the right to connect.' The EU Member States must ensure that all customers, including electricity producers, have a right to be connected to the grid under transparent, fair, and non-discriminatory conditions.[119] When it comes to permitting, grid connection is mentioned in Article 16, which governs organisation of permit granting procedures. While this article introduces specific timeframes regarding certain types of renewables *(such as heat pumps),* onshore wind is not specifically mentioned.[120]

Connecting renewables to the grid: In the context of connecting renewables to grid, Article 17 of RED III should be mentioned. Member States must establish a simple-notification procedure for grid connections of renewable self-consumer installations and demonstration projects with a capacity of 10.8 kW or less, allowing them to connect after notifying the distribution system operator. The operator may reject the request or propose an alternative connection point within a limited time, based on justified safety or technical concerns. If approved, or if no response is given within one month, the connection can proceed.

[115] Questions and Answers on the EU Action Plan on Grids https://ec.europa.eu/commission/presscorner/detail/en/qanda_23_6045

[116] Electricity infrastructure development to support a competitive and sustainable energy system. 2024 Monitoring Report. https://www.acer.europa.eu/sites/default/files/documents/Publications/ACER_2024_Monitoring_Electricity_Infrastructure.pdf

[117] Art 15 e, Revised Renewable Energy Directive, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L_202302413

[118] https://extranet.acer.europa.eu/ga/Electricity/CONNECTION-CODES

[119] Art 6 and Art 13 of the Electricity Directive *(Directive (EU) 2019/944)*.

[120] Art 16e introduces special permit-granting procedure for the installation of heat pumps. According to this provision, Member States shall ensure that connection of certain types of heat pumps to the transmission or distribution grid shall be permitted within two weeks of the notification to the relevant entity.

Member States may also extend this simplified procedure to installations up to 50 kW, provided grid stability, reliability, and safety are ensured.

7.1.2. REPOWERING AND INNOVATION

Repowering – definition and deadlines RED III defines repowering as 'renewing power plants that produce renewable energy, including the full or partial replacement of installations, operational systems, and equipment for the purposes of replacing capacity or increasing the efficiency or capacity of the installation.'[121] The Directive introduces strict deadlines for completing the permitting process for repowering project. For renewable energy plants located outside designated RAAs, the permit-granting procedure must be finalised within 12 months. In the case of installations situated within RAAs *(Article 16a),* the permitting process for repowering must be completed within 6 months. Furthermore, repowering projects within acceleration areas, including co-located energy storage facilities and their grid connections, are exempt from the requirement to conduct a dedicated environmental impact assessment and screening process for repowering projects should be finalised within 30 days.

In addition, Article 16c of RED III on accelerating the permit-granting procedure for repowering stipulates that, in cases where repowering does not increase a plant's capacity by more than 15%, Member States must ensure that the permit-granting process for grid connection is completed within three months after the application is submitted, unless there are justified safety concerns or technical incompatibilities. These provisions are further supported by specific recommendations to Member States outlined in the European Commission's guidance on good practices for accelerating permit-granting procedures for renewable energy and related infrastructure projects. The Recommendation advises Member States to establish simplified procedures for repowering existing renewable energy plants, including by clarifying applicable land use restrictions. It also encourages the development of clear national guidelines on how the difference between repowering and new projects should be treated in the national framework.[122]

Innovative projects: Article 15 of RED III emphasises the need to support innovative renewable energy projects and promotes the establishment of pilot projects in real-world environments, for a limited period and in accordance with applicable EU law. The Recommendation encourages the Member States to establish regulatory sandboxes to grant targeted exemptions from the national, regional or local legislative or regulatory framework for innovative technologies, products, and services. This includes eased permit-granting for testing sites for new technologies, as well as integrating new technologies into grids faster.

7.2. GOOD PRACTICE EXAMPLES FROM DENMARK AND THE EU

7.2.1. COORDINATED GRID PLANNING

In Denmark, grid planning requirements are not set out in a single law but are embedded across several legal and strategic documents. Denmark's Climate Act *(Klimaloven)* indirectly mandates that infrastructure development, including electricity grids, supports the achievement of national climate targets. Furtherly, the Danish Electricity Supply Act *(Elforsyningsloven),* which defines the core obligations of grid operators, including planning, operation, expansion, and maintenance of the electricity grid. Under this Act, Energinet *(the national TS* ponsible for ensuring the efficient use and development of the transmission network and integrating renewable energy sources.

Planning efforts are built around long-term strategic forecasting *(Langsigtet Udviklingsplan, LUP)* and technical analysis, guided by Denmark's 70% emissions reduction target for 2030 and full climate neutrality by 2050.The TSO is legally required to prepare plans for future transmission capacity needs and to ensure the necessary upgrading and expansion of the network. Grid planning must be conducted transparently and in close cooperation with other

[121] RED III

[122] Commission Recommendation *(EU)* 2024/1343 of 13 May 2024 on speeding up permit-granting procedures for renewable energy and related infrastructure projects

transmission companies, international system operators, and electricity suppliers.[123] Prior to 2021, Energinet produced annual system development reports and project-specific expansion plans, but there was no comprehensive national plan aligned with long-term climate objectives. This changed with the publication of the first Long-Term Development Plan *(LUP)* in 2021, which mapped future transmission needs up to 2040–2050 based on scenario analyses developed with the Danish Energy Agency *(DEA)*. A second updated Long-Term Development Plan was published in 2024, accompanied by several publicly available technical studies that further detail system development needs and options. The long-term development plan should be updated every two years.[124]

RED III requires Member States to ensure that transmission and distribution system operators involve stakeholders in network development planning. Denmark provides a good practice example, as the Danish Energy Agency has organised consultations around the development of long-term plan and assumptions, with stakeholders' positions and all relevant documentation available online.[125]

Another good example of a coordinated and transparent approach to grid planning is Finland, where network planning is characterised by strategic coordination, inclusive stakeholder engagement and proactive development. Similarly to Denmark, the main responsibility rests with the TSO – in this case Fingrid. Fingrid publishes a main grid development plan every two years; however, unlike the Danish plans, which adopt a longer-term perspective *(several decades)*, the Finnish main grid development plan focuses on a ten-year horizon.[126] The plan outlines the development needs of the main grid, and the investments planned for the next decade. A key feature of the Finnish policy is the close cooperation between grid operators and project developers, which has resulted in significantly faster processes for the integration of renewables. Developers, as well as other customers are participating in the planning process and can influence its outcomes. This strategy enables Finland to anticipate and prevent potential bottlenecks in the system, ensuring that grid development is anticipatory, not merely reactive.[127]

7.2.2. ACCESS TO GRID AND SYSTEM INTEGRATION

The management of grid capacity and ensuring transparent, non-discriminatory access to the grid for renewables are increasingly central issues in Europe's energy transition. In Denmark the electricity *(and gas)* TSO – Energinet – provides a public grid map tool showing substations and major transmission lines, as well as overview of connection capacity zones and constraints. Grid connection for onshore wind is granted based on the Danish Electricity Supply Act, the Danish Electricity Security Act and Commission Regulation *(EU)* 2016/631 of 14 April 2016 laying down network codes on grid connection requirements for power generation installations as well as Commission Regulation *(EU)* 2016/1388 of 17 August 2016 establishing a network code on demand connection. The process is managed primarily by the local DSO. Grid access is granted on a first-come, first-served basis, and projects with limited grid access may face curtailment in congested areas. Grid connection agreements are legally binding and standardised, with oversight by the Danish Utility Regulator to ensure transparency and non-discrimination.[128]

In Germany, the grid operator *(DSO or TSO)* is legally obliged to connect renewable energy projects *(such as onshore wind)* without discrimination. The

[123] Key Articles *(relevant for grid planning)* are in chapter 5 of the Danish Electricity Supply Act, among others paragraph 28 on Energinet's role as system operator. Danish Electricity Act: https://www.retsinformation.dk/eli/lta/2005/286

[124] Current LUP estimates that the Danish TSO must build approximately 2,700 km of additional electricity grid by 2030, and an additional 3,000-4,000 km by 2050. Energinet has planned significant investments of DKK 36 billion over the next four years up to 2027, which translates to DKK 9 billion annually. https://renewablewatch.in/2024/10/04/stepping-up-the-pace-denmark-releases-a-grid-plan-to-enable-the-green-transition/; https://energinet.dk/om-publikationer/publikationer/langsigtede-udviklingsplan-2024/

[125] A public consultation meeting was held between 13 May and 16 June 2024 with results available online: https://energinet.dk/media/sl2bnopg/24-06762-38-lup24-hoeringssvar-samlet-10203816-1-1.pdf, https://energinet.dk/media/ydqhbzft/hoeringsnotat-energinet-lup-2024.pdf

[126] Fingrid, Main grid development plan 2024-2033, available here https://www.fingrid.fi/en/grid/development/development-plan/

[127] Fingrid 'Main grid planning is our core business'. See also Monitoring the implementation of the Commission recommendation and guidance on speeding up permit-granting procedures for renewable energy and related infrastructure projects

[128] See Energinet information on connecting power production installations https://energinet.dk/regler/el/nettilslutning/

developer must bear the costs for establishing the grid connection from their facility to the nearest suitable grid connection point. According to § 8 of the Renewable Energy Sources Act *(EEG)*, grid operators are obligated to respond to grid connection requests within eight weeks – or even faster – providing detailed information on available grid capacity. If sufficient capacity is not available, operators must inform applicants about planned measures to enable future grid connections. From January 1, 2025, grid operators in Germany will be required to provide standardised web portals through which renewable energy systems up to 30 kW can submit connection requests and exchange necessary information. The format and content of these electronic processes should be harmonised as much as possible, helping to simplify and accelerate application handling.[129]

Lithuania provides an interesting example of progressive grid capacity management and transparency. Both Litgrid *(the TSO)* and ESO *(the DSO)* publish real-time data on grid operations, including intersystem flows, generation, consumption, and wind farm production. The State Energy Regulatory Council has developed clear procedural rules for grid access, and digital connection requests are available through Litgrid's and ESO's websites. Moreover, Litgrid website provides the real-time data on intersystem flows, consumption and generation of electricity, generation at wind farms, scheduled/actual outages of the generation sources etc. The grid data is structured in the form of tables and graphs for greater clarity and can be downloaded in Microsoft Excel format.

In general, one can observe trend towards digitalisation and increased transparency, with European TSOs maintaining capacity maps online, allowing developers to access information on capacity – there are several good examples of that such as Germany, Denmark, Lithuania, France and Spain. Germany's TSOs *(50Hertz, TenneT)* offer for example online GIS-based interactive maps showing substation locations, existing and planned capacities, available grid connection points. Information online is available also when it comes to status of connection requests and detailed technical connection requirements *(voltage, location)*.

7.2.3. REPOWERING AND ENABLING INNOVATIVE PROJECTS

Repowering: With technological advancements offering more efficient and powerful turbines, there is a growing trend across Member States to replace older installations with modern ones. This shift has generated increasing demand for effective regulatory frameworks to facilitate repowering – a discussion that has gained significant momentum over the past decade. RED III introduces quite comprehensive provisions and definitions of repowering, which is increasingly seen as a cost-effective way to boost renewable energy production without requiring new land or extensive new permitting processes. Repowering minimises land use conflicts, social acceptance issues, and grid connection challenges, compared to building entirely new projects. Instead of decommissioning older turbines, repowering allows for the installation of fewer, but more efficient turbines, making better use of existing sites and grid infrastructure.

In Denmark, repowering has played an increasingly important role, both in terms of installed capacity and the number of turbines. In 2020, repowering accounted for 38% of all new wind energy projects, with only 10% more capacity developed through greenfield installations compared to repowered ones. The share of repowering continues to grow steadily, contributing a significant portion of Denmark's gross added wind capacity.[130] Repowering has been also effectively mainstreamed into its regulatory framework. Projects qualifying as repowering benefit from a simplified permitting procedure under Executive Order no. 487 of 15th of May 2025. According to this regulation, the environmental impact assessment *(EIA)* for repowering projects is limited to the potential impacts arising from changes or extensions compared to the original installation, significantly easing the administrative burden on developers. This constitutes the transposition of article 16c*(2)* of RED III.[131]

Other interesting examples are Ireland and Portugal, which have developed guidelines on repowering, which could be used by Ukrainian authorities at later stage, when working on more detailed, lower-level legislation focused on the replacement

[129] Renewable Energy Sources Act, https://www.gesetze-im-internet.de/eeg_2014/

[130] Kitzing, L., Jensen, M. K., Telsnig, T., & Lantz, E. *(2020)*. Multifaceted drivers for onshore wind energy repowering and their implications for energy transition. Nature Energy, 5, 1012–1021. https://doi.org/10.1038/s41560-020-00717-1

[131] Full text of the Executive Order available at: https://www.retsinformation.dk/eli/lta/2025/487

or upgrading of existing renewable onshore energy installations with newer, more efficient technology.[132]

Innovative projects: Developers across the EU are increasingly advocating for greater opportunities to test innovative solutions, noting that current national legal frameworks do not always provide sufficient flexibility to support such activities. As a result, there is growing recognition at the EU level of the need to facilitate the development and testing of new technologies, and this is reflected in recent EU legislation aimed at promoting innovation within the energy sector e.g. through regulatory sandboxes. In general terms, a regulatory sandbox refers to a controlled testing environment where innovative projects can be developed under a more flexible regulatory framework. Such a sandbox creates an environment for participatory experimentation aimed at identifying required changes to energy law regulations, helping to overcome legal barriers to the energy transition. A key feature is the facilitation of a two-way dialogue between developers and regulators, with the goal of introducing new technical and organizational solutions.

A good example a dedicated regulatory sandbox for the energy sector is France, where the national regulatory authority *(CRE)* can grant exemptions from network access and usage requirements. This French sandbox is designed to facilitate experimental deployment of innovative technologies and services that contribute to the energy transition, smart grids, and new infrastructure development. Since November 2022, applications for participation have been processed on a first-come, first-served basis through a dedicated online platform. The French model illustrates how a clear, centralised framework for regulatory experimentation can accelerate innovation while maintaining regulatory oversight and supporting the scaling-up of new solutions in the electricity market.[133]

Although Denmark does not have a single, formalised 'regulatory sandbox law,' exemptions are granted under existing sectoral legislation, such as for offshore test projects, where streamlined permit procedures significantly reduce administrative burdens. The Danish approach emphasises flexibility, early integration of new ideas into the regulatory system, and strategic support for green transition technologies, particularly in offshore renewable energy and green hydrogen. Denmark can also serve as best practice example when it comes to collaboration between private and public partners in sector coupling, bringing new *(including large-scale)* solutions to life.[134]

7.3. STATUS IN UKRAINE AND COMPARATIVE ANALYSIS

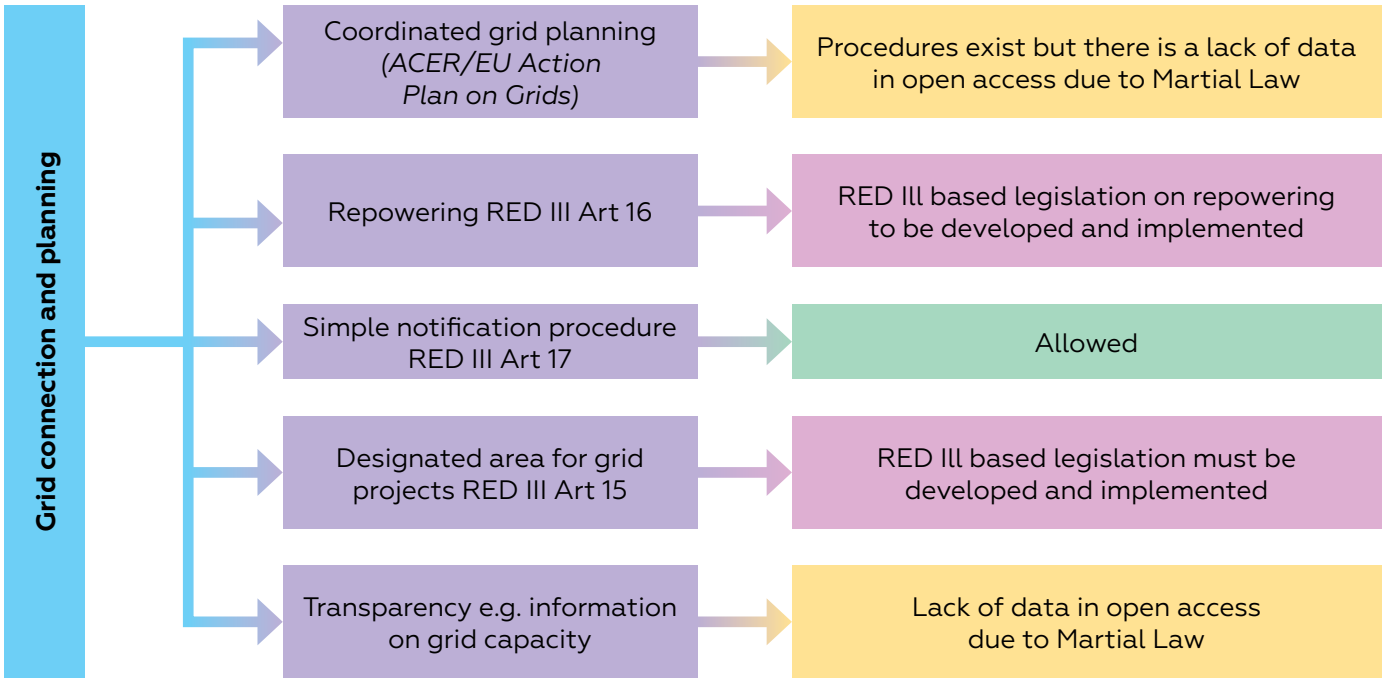
Ukrainian grid connection rules align with the EU's electricity market regulations as outlined in Chapter 3. However, Ukraine's situation is unique due to the extensive destruction caused by the ongoing war. During the post-war reconstruction phase, it will be essential to build a significant amount of RES capacity while also restoring, expanding, or developing the transmission and distribution grids, many of which have been severely damaged. In this context, effective grid planning and the establishment of grid connection procedures are crucial. While some provisions of the RED III that focus on repowering and innovative projects may seem less pertinent, it is important to understand that the obligation to transpose EU law, including the entire RED III, applies comprehensively rather than selectively to only the parts considered immediately relevant. Thus, although the immediate focus in Ukraine will be on rebuilding and stabilisation, this report also examines the less urgent provisions of RED III and best practices related to repowering and testing new technologies.

[132] More power to you. A guide to repowering in Ireland. https://windenergyireland.com/images/files/repoweringes.pdf

[133] https://www.cre.fr/en/electricity/electricity-networks/regulatory-sandbox.html

[134] See, for example Kalundborg Symbiosis which is an innovative industry cluster enabling collaboration on new technologies, sector coupling and forum of interaction, at local level, between public stakeholders *(municipalities)* and the industry. https://www.symbiosis.dk/en/

Figure 7.1. *Status of Grid Connection and Planning Framework in Ukraine (alignment with RED III)*



7.3.1. BOTTLENECKS AND GAP ANALYSIS

Grid capacity availability: A core challenge for developer is that many substations and transmission lines lack spare capacity for new generation connections. In practice, if a substation is already at full capacity, a developer must either pay for network upgrades *(e.g. additional transformer)* or seek a more distant connection point. Such reconstructions are both costly and time-consuming. The allocation of grid connection capacity operates on 'first-come, first-served' basis, with no priority given to RES projects. Furthermore, there is no unified portal or map providing real-time information on capacities at substations particularly since the onset of Martial Law. As a result, developers must rely on individual inquiries to grid operators, which requires additional time and effort.

Alignment of the renewables developments plans with the transmission system development plan: By May 1 each year, the TSO shall develop and submit a 10-year transmission system development plan to the National Energy and Utilities Regulatory Commission *(NEURC)* for approval, in accordance with the established procedure. This 10-year plan must ensure that the transmission system meets the needs of the electricity market while prioritising electricity supply security.

The 10-year transmission system development plan includes measures to enhance electricity supply security, identifies key transmission facilities that need to be constructed or reconstructed within the next decade, provides timelines and funding sources for these projects, and outlines ongoing investments and projected expenditures for the upcoming three years.

The transmission system development plan for 2025–2034 was approved by the NEURC on January 21, 2025, under Resolution No. 58. However, the text of the plan is not publicly available due to the Martial Law constraints. Therefore, it is impossible to verify whether the plan incorporates the national RES targets and whether it considers the perspective of defining RAAs in Ukraine in line with RED III.

TSO's financial condition is persistently challenging, which hinders the implementation of plans for the development and maintenance of the transmission system. This situation is likely to result in increased grid connection fees, leading to higher costs for developers in creating design documentation and obtaining grid connection services. To address these issues, the Ukrainian government should develop and implement measures that foster a regulatory environment, enabling the TSO's management to improve the company's financial situation.

Capacity booking, multiple *(hybrid)* connections: Starting from the beginning of 2025 Ukrainian legislation provides for such mechanisms as capacity booking and multiple *(hybrid)* connections. On 29 July, NEURC adopted amendments to the Transmission System Code regarding the capacity booking mechanism procedure. Along with these procedural changes, NEURC approved templates for the capacity booking mechanism agreement and application, as well as a list of documents required to accompany the application. The adopted changes make these new mechanisms available for the new projects. The table below identifies the gaps between Ukrainian legislation on grids, grid connections and the requirements of RED III, and highlights the specific areas where legal and procedural revisions are necessary.

RED III PROVISIONS AND ADDITIONAL EU REGULATIONS	CURRENT UA LAW AND ADMINISTRATIVE PROCESSES	LINK TO THE RELEVANT LEGISLATION	GAPS & REQUIRED CHANGES
Grid planning Art. 24 *(8)*, Recommendation and Action Plan on Grids.	Distribution and Transmission system codes provide for the detailed procedure of the grid planning, considering the RES deployment. Each year TSO is preparing the transmission system development plan for next 10 years. DSOs are required to develop their grid plans for next 5 years considering transmission system development plan. Due to Martial Law plans are not publicly available.	1) Law of Ukraine 'On Electricity Market' No. 2019-VIII dd 13 April 2017. 2) Transmission System Code as approved by NEURC decree No. 309 dd 14 March 2018. 3) Distribution Systems Code as approved by NEURC decree No. 310 dd 14 March 2018.	TSO and DSOs should ensure the incorporation of the strategical plans on integration of renewables and its share in generation mix during the grid planning process.
Access to grid – the right to be connected *(Electricity Directive)*.	Distribution and Transmission system codes explicitly provide the right for the customer to be connected to the grid and have very limited grounds for system operators to refuse the interconnection. No priority for RES project.	1) Law of Ukraine 'On Electricity Market' No. 2019-VIII dd 13 April 2017. 2) Transmission System Code as approved by NEURC decree No. 309 dd 14 March 2018. 3) Distribution Systems Code as approved by NEURC decree No. 310 dd 14 March 2018.	Introduce the concept of prioritised grid connection for the RES projects in Ukrainian legislation.
Simple notification procedure for grid connection *(Art. 17, RED II)*.	Prosumers are eligible for the simple notification procedure for grid connection.	Law of Ukraine 'On Electricity Market' No. 2019-VIII dd 13 April 2017.	N/A
Grid and storage projects development *(Art. 15 e, RED III)*.	No plans have been developed to designate dedicated infrastructure areas for the development of grid and storages to integrate RES into electricity system. As a part of NREAP 2030, the development of the legislation for the designation of the infrastructure zones for the development of grid and storage is planned to be conducted until Q3 2026.	NREAP 2030	Ukraine should develop the special dedicated infrastructure areas for the development of grid and storage projects in accordance with Art. 15 e of RED III Directive.

Digital, transparent information on capacity ***(RED III, Art. 20a on facilitating system integration of RES*****)**	Before the war a special digital map on the available grid capacity and interconnections was publicly available. During Martial Law the map is not publicly available anymore. Ukraine works on integration of information about available grid capacity into the national urban planning data base. These efforts are restricted by the lack of financial resources and by the legal regime of the Martial Law.	1) Transmission System Code as approved by NEURC decree No. 309 dd 14 March 2018. 2) Distribution Systems Code as approved by NEURC decree No. 310 dd 14 March 2018.	Given the informational restrictions imposed during Martial Law and sensitive character of the information, just only general and simplified information on available grid capacity could be made accessible for developers.
Repowering ***(RED III Art.16a,16c).***	Specific legal simplifications in permitting and interconnection for the repowering projects are not implemented.	N/A	The legislation on simplification of permitting and interconnecting repowering projects should be foreseen by Ukrainian legislation.
Innovative projects, multiple connections.	The laws of Ukraine provide for consideration of innovations when announcing terms of the auctions for the construction of generation facilities. The recent changes to grid connection rules envisage multiple connections *('cable pooling')*.	1) Law of Ukraine 'On Electricity Market' No. 2019-VIII dd 13 April 2017.	The secondary legislation on innovative project and multiple connections should be introduced in the nearest future.

8. ENVIRONMENTAL LEGISLATION AND PUBLIC CONSULTATION PROCESS

The Renewable Energy Directive *(RED III)* places significant emphasis on accelerating the deployment of renewable energy while preserving environmental integrity and upholding public consultation principles. This chapter examines how the environmental considerations and public consultation process are embedded into the permitting processes as well as reviewing the existing environmental procedures for renewable energy projects in Ukraine.

8.1. ENVIRONMENTAL CONSIDERATIONS EMBEDDED INTO RED III PROVISIONS

The environmental considerations are embedded in the preamble to the Directive and in Articles 15 through 16f, which address the administrative procedures, planning, and permitting frameworks for renewable energy projects. RED III is closely linked to existing environmental legislation, including Environmental Impact Assessments *(EIA)* Directive 2011/92/EU, Strategic Environmental Assessments *(SEA)* Directive 2001/42/EC, Habitats Directive 92/43/EEC, Birds Directive 2009/147/EC, and Water Framework Directive 2000/60/EC. It also reflects the principles of the Aarhus Convention, especially in relation to public participation in environmental decision-making and access to justice.

Public participation and access to information: The principles of the Aarhus Convention, i.e. access to information, public participation in decision-making, and access to justice in environmental matters, are reflected throughout the RED III. While RED III does not explicitly name the Aarhus Convention in its main body *(only in recital 30),* its provisions are clearly embedded into the Directive. Article 15d establishes a requirement for public participation in the designation of RAA, mandating Member States to conduct public consultations in accordance with Article 6 of Directive 2001/42/EC *(SEA Directive)*. This ensures early and effective public involvement in strategic energy planning. Additionally, Article 15d *(2)* promotes broader public acceptance of renewable energy through the participation of local communities, reinforcing inclusive governance in the energy transition.

Environmental assessments mandated under Articles 15c and 15d *(e.g., strategic and appropriate assessments for RAA)* are intrinsically tied to public consultation requirements under EU law. Article 16*(3)* requires Member States to establish a single contact point that provides guidance on all permitting stages, explicitly including environmental protection procedures, thereby enhancing access to information. Moreover, Article 16*(5)* ensures that the general public has access to simple dispute resolution procedures, while Article 16*(6)* calls for expedited administrative and judicial review for appeals, including those related to environmental matters. Finally, Article 16f introduces a presumption that renewable energy projects are in the overriding public interest when balanced against environmental legal interests. While this may affect how environmental derogations are assessed *(e.g., under the Habitats Directive),* it does not negate the procedural rights under Aarhus, as environmental assessments and transparency remain mandatory, and derogations must be justified and notified.

SEAs and EIA: The SEA and EIA, key tools for ensuring that the environmental impacts of renewable energy development are identified and addressed appropriately, are integrated into the permitting and planning processes. SEA applies at the strategic planning level, most notably in the designation of RAAs under Article 15c, where Member States are required to carry out an SEA. This ensures that environmental considerations and public consultation are embedded early in the spatial planning process.

At the project level, Article 16a introduces limited derogations from EIA requirements for certain projects within RAAs. Projects within RAA should be exempt from the obligation to carry out an EIA. These projects are subject to a screening process *(Art. 16a(4))* to identify any significant unforeseen environmental impacts not previously addressed in the SEA. If such impacts are likely, a full EIA under the EIA Directive 2011/92/EU must still be conducted *(Art. 16a(5))*.[135] For projects located outside RAAs, Article 16b requires that environmental assessments,

[135] Unless a Member State can exempt wind and solar photovoltaics from such assessments in the event of justified circumstances, cf. article 16a*(5)*, subsection 2.

including those under the EIA and Habitats Directives, where relevant, be conducted through a single, streamlined procedure.

The Renewable Energy Directive sets strict deadlines for permitting procedure, e.g. 12 months in RAA for renewable energy projects, 24 months outside RAA. However, these deadlines must include the time needed to perform a full EIA/SEA process, if applicable *(Art 16(1)– (3))*.[136]

Environmental considerations when designating RAA: The designation of RAAs under Article 15c is designed to fast-track renewable energy deployment while upholding environmental safeguards. First, Article 15c*(1)(a)* requires that Member States identify areas where the deployment of renewable energy is not expected to have a significant environmental impact, giving priority to artificial and built environments *(e.g. rooftops, parking areas, degraded land)*, and explicitly excluding ecologically sensitive areas such as Natura 2000 sites, nationally protected zones, and major migratory routes, except in limited cases where impacts can be ruled out. Second, Member States are required to apply mapping tools and sensitivity analyses, including wildlife and habitat data, to support ecologically informed site selection. Furthermore, as discussed above, the designation of RAAs is subject to a SEA, where the cumulative environmental impacts of multiple projects must be considered. Article 15c*(1)(b)* also obliges competent authorities to establish site-specific mitigation measures for each RAA to avoid or reduce potential adverse environmental impacts. These requirements play important role in ensure that energy projects within RAA benefit from accelerated permit granting procedure, without undermining environment.

Presumption of overriding public interest: Article 16f establishes that renewable energy projects shall be presumed to be in the overriding public interest and to serve public health and safety. As discussed in section 4.1.4, this presumption is designed to facilitate the application of derogations under key pieces of EU environmental legislation, specifically Article 6*(4)* of the Habitats Directive *(92/43/EEC)*, Article 4*(7)* of the Water Framework Directive *(2000/60/EC)*, and Article 9*(1)(a)* of the Birds Directive *(2009/147/EC)*, which normally restrict developments that may adversely affect protected habitats, species, or water bodies. The presumption of the overriding public interest simplifies the legal balancing test by establishing that renewable energy projects are, by default, considered to serve a broader public good, but it does not waive the obligation to carry out appropriate assessments under these directives. Article 16f allows Member States to apply this presumption selectively, restricting it to certain technologies, territories, or project types in line with their national energy and climate plans, and requires them to notify the European Commission accordingly. Therefore, while Article 16f facilitates permitting in ecologically sensitive areas, while ensuring that any derogation is subject to a prior assessment, mitigation, and, if necessary, compensatory measures.

Innovation with safeguards: Article 15*(2a)* encourages Member States to support the testing of innovative renewable energy technologies, including technologies for producing, sharing, and storing renewable energy, through pilot projects in real-world environments. These projects are important for advancing innovation and include projects like advanced storage systems, hybrid renewable energy installations, and grid-integrated flexibility services.

To ensure that technological experimentation does not come at the expense of environmental protection or system stability, several important safeguards are established for such projects:

- Time-limited and supervised: Pilot projects must be conducted for a limited period and under the supervision of a competent authority.
- Compliance with EU law: All pilot projects must adhere to applicable EU environmental and internal market legislation.
- System security and market functioning: Projects must be designed and operated in a way that avoids disproportionate impacts on the functioning of the energy system or the internal energy market.
- Environmental risk management: While Article 15*(2a)* does not prescribe a specific environmental permitting path for pilots, it implicitly requires risk-based governance.
- Innovation under control: Member States are expected to create procedural and regulatory conditions that enable innovation. In practice, this may mean applying simplified but still rigorous permitting or monitoring schemes for early-stage deployments.

[136] For specific deadlines for an EIA within RAA's see article 16a*(5)*.

8.2. IMPLEMENTATION IN THE EU. EXAMPLES FROM DENMARK AND SELECTED MEMBER STATES

The implementation of the presumption of overriding public interest for renewable energy projects as well as designation of the RAA is relatively new. Many Member States are in the process of setting frameworks for the implementation of these concepts. Therefore, there is limited information available on how in practice the Member States will be ensuring that the environmental considerations are safeguarded while streamlining permitting. Nevertheless, there are some examples linked to the preparation of SEA and EIA that can be relevant for streamlining the permitting process both within and outside of the RAAs.

Denmark provides an example of how the implementation of RED III can balance accelerated permitting with robust environmental protection by front-loading environmental assessments with SEA at the planning stage. The Danish framework for the designation of RAA, as described in Chapter 5, requires that an SEA is performed pursuant to SEA Directive 2001/42/EC, evaluating cumulative environmental impacts of renewable energy deployment across the defined area *(see more details on the Danish framework in section 5.2)*. Once the SEA has been completed and the area is designated as an RAA, individual renewable energy projects located within these areas are generally exempt from conducting a full EIA. This system represents a shift in the burden of proof from the project developer to the municipality or regional authority, which is responsible for preparing the SEA and justifying the area's suitability. This reduces the administrative burden on individual developers.

For outside RAAs, the EIA can be further streamlined by introducing various measures such as consolidating multiple environmental assessments into a single procedure, introducing clear EIA thresholds and screening criteria, digitalising and standardising the EIA process as well as using strategic data and pre-assessment tools to support project siting.[137] For example, consolidating the environmental assessments into a single, coordinated permitting process is successfully implemented in Austria, where all necessary approvals are issued through a unified procedure by one authority, and in Romania, where assessments under multiple environmental directives are embedded within the EIA process. Supporting measures such as environmental sensitivity mapping tools in Spain and Belgium, and digitalised EIA platforms in Austria and Estonia, further improve predictability, reduce administrative burden, and facilitate faster permitting while ensuring that environmental impacts are rigorously assessed.

8.3. IMPLEMENTATION IN THE EU. EXAMPLES FROM DENMARK AND SELECTED MEMBER STATES

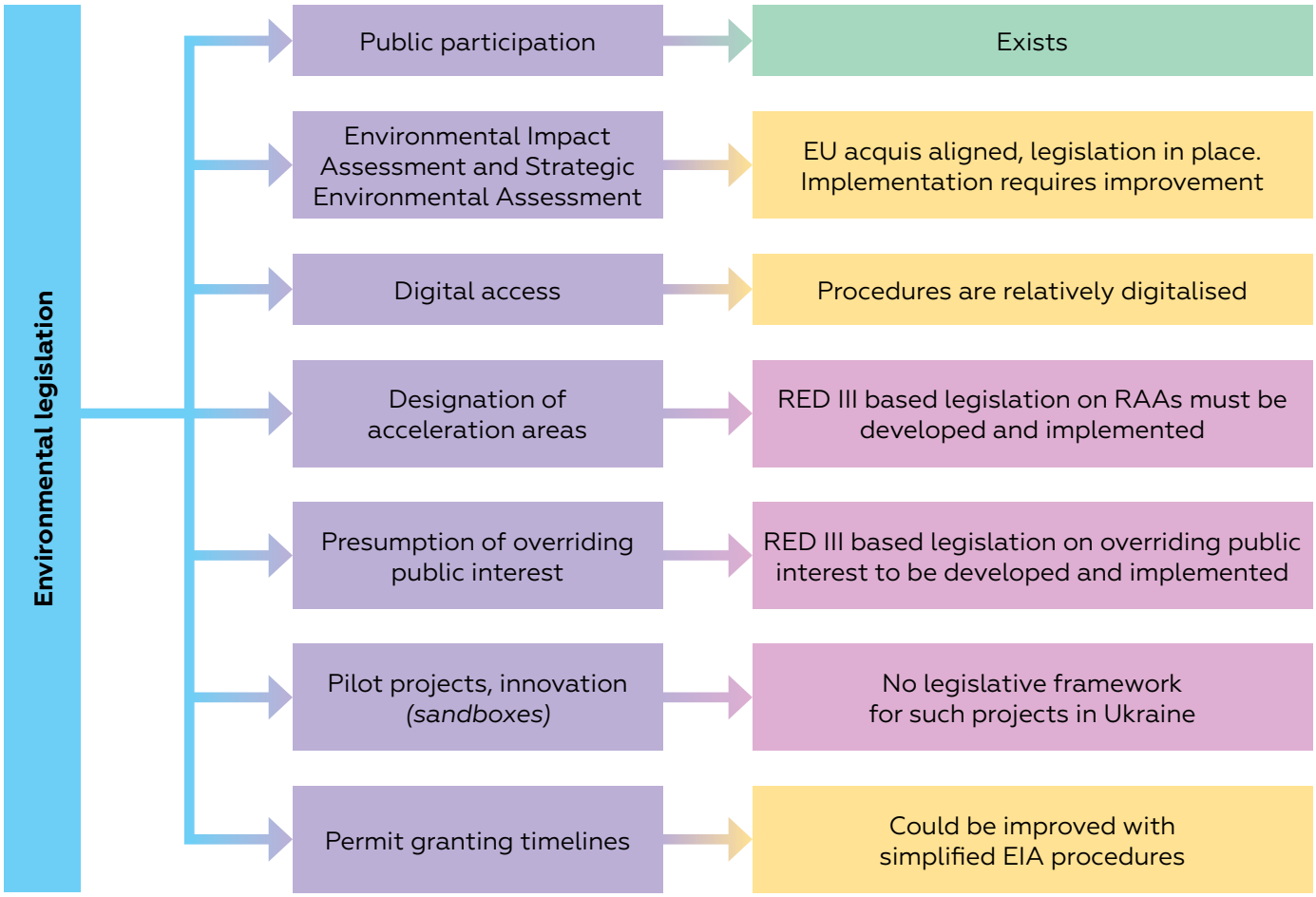
This section analyses the environmental procedures linked to permit granting of renewable energy projects in Ukraine and compares them with the requirements set out in RED III. A gap analysis is conducted to identify main discrepancies between Ukrainian legislation and EU requirements, highlighting the specific areas where legal and procedural revisions are necessary to align with the Directive's objectives.

8.3.1. ENVIRONMENTAL PROCEDURES FOR RES PROJECTS IN UKRAINE

The EU Directives 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC and 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects

[137] Recommendation and Guidance to Member States on good practices on speeding up permit-granting procedures for renewable energy and related infrastructure projects *(13 May 2024)* Recommendation and guidance on speeding up permit-granting for renewable energy and related infrastructure projects – European Commission

Figure 8.1. *Environmental legislation in Ukraine and RED III alignment*



of certain public and private projects on the environment were transposed into Ukrainian legislation in 2017 by the Law of Ukraine 'On Environmental Impact Assessment' and the Law of Ukraine 'On Strategical Environmental Assessment' in 2018.

The principles of the Aarhus Convention, i.e. access to information, public participation in decision-making, and access to justice in environmental matters, are reflected in the Ukrainian legislation on EIA and SEA.

Though the Ukrainian EIA and SEA procedures in general correspond to the EU acquis, there are still some issues that complicate the process and therefore, should be solved.

The Law on EIA stipulates that the EIA conclusion expires after five years if no decision has been taken to proceed with the planned activity. Given the war-induced delays in wind power plants projects and the uncertain timeline for their completion, it's reasonable to extend the validity of the EIA conclusion and the ability to obtain permits based on it during the period of Martial law and for five years after its termination.

The current legislation requires that EIA for wind power plants should be conducted twice – first, when changing the designated purpose of the agricultural land to be used in such activities, and second, when applying for the construction permit. The disadvantage of such a requirement lies in the impossibility for the wind developer to have a complete information on the configuration, wind turbine model, and other specific parameters of the planned wind farm at the stage of changing the designated purpose of the land. As a result, wind developers are forced to spend twice as much time, financial and human resources on EIA. Allowing changing of the designated purpose of agricultural land and especially valuable land for the period of martial law and five years after its cancellation without conducting EIA procedures will simplify the EIA procedure and shorten time required for EIA.

The lack of mapping the Emerald network of area with precise boundaries of these territories and other protective zones creates grounds for environmental and other organisations to file lawsuits in court against wind projects. The proper mapping of protective and bird sensitive zones leads to less social conflicts and reduce the impacted areas.

Implementation of the presumption of overriding public interest of wind and other RES projects in Ukraine's legislation will make the EIA process smoother and swifter. In addition, it's worth noting that the current legislation also requires re-evaluating the EIA if changes have been made to the project design. Due to war-related delays and technological changes (e.g., increased turbine capacity and height), wind developers need to reconduct the EIA in case of changes in project design. The Ukrainian EIA Law provides exemption for reconducting EIA if changes to the project design do not increase hazardous waste, emissions, or negative environmental impacts. However, the wording of the EIA Law does not explicitly provide the list of parameters that can be changed without the necessity to reconduct EIA which creates uncertainty for the developers.

8.3.2. GAP ANALYSIS

The table below identifies the gaps between Ukrainian legislation and EU requirements, highlighting the specific areas where legal and procedural revisions are necessary.

ENVIRONMENTAL CONSIDERATIONS & PUBLIC PARTICIPATION	MAIN REQUIREMENT UNDER RED III *(ART 15-16)*	CURRENT UA LAW AND ADMINISTRATIVE PROCESSES	LINK TO THE RELEVANT LEGISLATION	GAPS & REQUIRED CHANGES
Public participation.	Mandatory under Aarhus; early, effective, transparent participation required.	Mandatory under Ukrainian legislation.	1) Law of Ukraine 'On Environmental Impact Assessment' No. 2059-VIII dd 23.05.2017. 2) Law of Ukraine 'On Strategic Environmental Assessment' No. 2354-VIII dd 20.03.2018.	N/A
Environmental Impact Assessment *(EIA)* & Strategic Environmental Assessment *(SEA)*.	EIAs and SEAs are mandatory where relevant SEA required for renewables acceleration areas *(Art. 15c)*.	EIAs and SEAs are mandatory where relevant. Given the 'logic' of the Ukrainian legislation SEA would be mandatory during the allocation and shaping renewable acceleration areas.	1) Law of Ukraine 'On Environmental Impact Assessment' No.2059-VIII dd 23.05.2017. 2) Law of Ukraine 'On Strategic Environmental Assessment' No. 2354-VIII dd 20.03.2018.	Ukraine should consider amending some provisions of legislation in the area of environmental impact assessment for areas designated as renewable acceleration areas to avoid duplication of EIA procedures.
Single Contact Points and Digital Access.	One-stop shops and digital portals encouraged; information must be publicly accessible, facilitates access to information.	EIA procedures are rather digitalised. Public could access EIA materials and documents through the electronic resource called 'E-OVD'[138]. Online participation in public hearings is allowed. Information is partially closed due to martial law.	Law of Ukraine 'On Environmental Impact Assessment' No.2059-VIII dd 23.05.2017.	The contact point that shall, upon the request of the developer, guide and facilitate the developer during the entire administrative permit-application and permit-granting procedure, should be established.

[138] https://eco.gov.ua/categories/e-ovd

Designation of acceleration areas.	SEA is mandatory before designating renewables acceleration areas. Biodiversity and water impacts must be avoided *(Art 15c)*. Acceleration areas must exclude nature-protected zones, such as Natura 2000 or equivalent, unless no significant environmental effect is expected. Cumulative environmental impacts of multiple projects must be considered.	No steps towards designation of renewables acceleration areas have been taken in Ukraine. Nevertheless, any such designation would be conducted taking into account environmental issues considerations and in compliance with the environmental and environmental impact assessment legislation.	Law of Ukraine 'On Strategic Environmental Assessment' No. 2354-VIII dd 20.03.2018.	Ukraine should consider principles and approaches for the introduction of legislation framing of creation and functioning of renewable acceleration areas.
Presumption of overriding public interest	Projects within acceleration areas may benefit from a presumption of 'overriding public interest' for the purposes of environmental permitting. But Member States must still ensure that mitigation measures are in place, and no viable alternatives exist.	No legislation re overriding public interest projects in Ukraine.		Ukraine should introduce the principle of overriding public interest for wind and other RES projects.
Permit-granting timelines	Sets strict deadlines *(12 months in acceleration areas, 24 months outside)*. However, must still allow time for full EIA/SEA processes if applicable *(Art 16(1)–(3))*.	Permit granting procedures are digitalised. The 24-months deadline for completion of permitting stage is achievable for the majority of projects; large wind power projects could exceed such deadline due to lengthy procedures preceding permit granting stage *(as land allocation, land securitisation)*, time-consuming grid development process *(on the side of the grid operator)*, EIA procedures.	1) Law of Ukraine 'On Regulation of Urban Planning Activities' No. 3038-VI dd 17.02.2011. 2) Law of Ukraine 'On Electricity Market' No. 2019-VIII dd 13.04.2017. 3) Law of Ukraine 'On Environmental Impact Assessment' No. 2059-VIII dd 23.05.2017.	Excluding *(or introducing the simplified EIA procedures for)* wind and other RES projects within the RAAs could reduce time of permit-granting procedure within RAAs. To reduce time for obtaining the grid connection, the RAAs should be mapped and determined considering the need for electricity supply and conditions of local networks.
Pilot projects & innovation	Innovative renewable energy projects can be tested under supervision, they must be limited in time and scale and with safeguards to prevent negative impacts on energy systems or the environment *(Art 15 (2a)*.	No such initiatives have been introduced in Ukraine.		Any pilot project should be prepared considering the commercial aspect to make such project commercially attractive. The right to develop such projects could be awarded at the auction; however, to make such auction interesting for developers the configuration of the project must be marketable.

9. RECOMMENDATIONS FOR RED III IMPLEMENTATION IN UKRAINE

The emerging recommendations presented in this chapter are based on the work carried out under the project 'Legal Barriers to the Development of Onshore Wind Energy in Ukraine'. They draw upon the findings of the study team as well as the content and analysis developed in the preceding chapters of this draft report. As outlined in the methodology, the project focuses on supporting Ukraine's effective transposition and implementation of the revised Renewable Energy Directive *(RED III),* with special focus on permit-granting procedures. The recommendations are grounded in a combination of legal analysis, stakeholder engagement, and international experience-sharing, particularly with Denmark, and enriched by examples from other EU Member States. They are designed to provide both strategic guidance and practical steps toward aligning Ukraine's legal and institutional framework with RED III obligations.

The approach taken is pragmatic and action-oriented, balancing strategic alignment with RED III requirements and the operational realities of Ukraine's legal, administrative, and planning frameworks under wartime conditions. Where possible, the recommendations are structured to indicate not only what should be done, but also how and by whom, including indicative sequencing and coordination needs. In this way, the recommendations are intended to lay the groundwork for a more detailed roadmap or action plan in subsequent phases. At later stage, after submission of this report, the project team would commence work on clear recommendation template, indicating type of action to be taken, deliverable, leading institution and identifying additional governmental agencies whose coordination is essential for implementation *(e.g. Ministry of Economy, Environment and Agriculture, Ministry for Communities and Territories Development, national grid operator UKRENERGO).*[139] Such approach is critical to ensure ownership and avoid gaps in institutional responsibility.

9.1. FRAMEWORK FOR PERMITTING ALIGNED WITH RED III

The Renewable Energy Directive III sets clear requirements for streamlining permitting procedures, as such it is important that Ukraine integrates these requirements into national law. These requirements include setting clear timelines for permitting for renewable energy projects, consolidating all permits into a single procedure, setting up a contact point as well as defining the renewable energy projects as overriding public interest.

RECOMMENDATION I	
Theme	**Clear and binding timelines for permit-granting procedures**
	To align with the RED III *(Articles 16 and 16a–16b),* Ukraine should establish clear maximum timeframes for permit-granting procedures as well as define legal consequences for delays. The deadlines prescribed by the Directive are presented in the table below. The legal consequences for missed deadlines could include tacit approval or automatic progression to the next procedural step, unless national legal constraints preclude this. Furthermore, allow a single extension, in exceptional circumstances, of up to 6 months, provided the applicant is notified of the justification.
Lead /participating institutions	Ministry of Energy of Ukraine Ministry for Communities and Territories Development State Inspectorate for Architecture and Urban Planning Ministry of Economy, Environment and Agriculture of Ukraine[140]
Other institutions *(non-exhaustive)*	Parliament *(Verkhovna Rada – relevant committees)* Local authorities *(Oblasts and Hromadas)*

[139] Draft of such template is provided in Annex III to this report.

[140] According to the Regulation of the Cabinet of Ministers of Ukraine no. 903 of July 21, 2025, the Ministry of Economy was renamed into the Ministry of Economy, Environment and Agriculture of Ukraine, the Ministry of Environmental Protection and Natural Resources and Ministry of Agriculture have been dissolved and their powers and functions transferred to the Ministry of Economy, Environment and Agriculture of Ukraine.

DEADLINES ACCORDING TO RED III		
	Within RAAs	**Outside RAAs**
Maximum permit-granting timeframes for onshore renewable energy projects	12 months for projects in RAAs	24 months for projects outside RAAs
Maximum permit-granting timeframes for offshore renewable energy projects	24 months for projects in RAAs	36 months for projects outside RAAs
Application completeness deadlines	30 days for projects in RAAs	45 days for projects outside RAAs

RECOMMENDATION II	
Theme	**Ensure comprehensive permit coverage in a streamlined procedure**
RED III requires that the permit-granting procedure covers all relevant administrative permits for renewable energy projects, including those combining different renewable energy sources, heat pumps and co-located energy storage, grid connection permits and environmental assessments. Thus, the streamlined procedure shall encompass all administrative stages from the acknowledgment of the application to the final decision. For example, various environmental assessments *(e.g., EIA, Habitats Directive, Birds Directive)* may be prepared separately but should be reviewed and approved in a consolidated manner. This approach would help to reduce administrative complexity and promote inter-agency coordination, while ensuring that developers do not need to submit multiple, separate applications for permit granting.	
Lead/participating institution to implement	Ministry of Energy of Ukraine Ministry for Communities and Territories Development State Inspectorate for Architecture and Urban Planning Ministry of Economy, Environment and Agriculture of Ukraine[141]
Other institutions engaged	Municipal authorities *(village, city councils)* Local state *(military)* administrations

[141] According to the Regulation of the Cabinet of Ministers of Ukraine no. 903 of July 21, 2025, the Ministry of Economy was renamed into the Ministry of Economy, Environment and Agriculture of Ukraine, the Ministry of Environmental Protection and Natural Resources and Ministry of Agriculture have been dissolved and their powers and functions transferred to the Ministry of Economy, Environment and Agriculture of Ukraine.

RECOMMENDATION III	
Theme	**Set up a single contact point to facilitate permit-granting processes**
The RED III requires a designation of a single contact point to improve efficiency, accessibility, and transparency for project developers, designate a single competent authority or platform to serve as the main contact point for the entire permit-granting process. The single contact point should: • Guide applicants through all stages of the permit process, including environmental requirements. • Act as the interface with all relevant administrative bodies, eliminating the need for applicants to contact multiple authorities separately. • Ensure that statutory deadlines are met, as required under RED III. • Publish a clear step-by-step permitting manual, including applicable timelines, documentation requirements, and procedural rules. • It is also important to consider the development of a digital one-stop shop, integrating permit applications, tracking and document submission.	
Lead/ participating institution	Ministry of Energy of Ukraine Ministry for Communities and Territories Development
Other institutions engaged	Municipalities Transmission System Operator Ministry of Economy, Environment and Agriculture of Ukraine[142] State Inspectorate for Architecture and Urban Planning

RECOMMENDATION IV	
Theme	**Define renewable energy as an overriding public interest**
For Ukraine to align its legislation with RED III, the concept of 'overriding public interest' should be introduced through a combination of legal reforms and administrative mechanisms. This includes formally defining renewable energy as an overriding public interest in national legislation and amending environmental and land-use planning laws to permit targeted exemptions for renewable energy projects, particularly wind, under strict conditions, such as the absence of viable alternatives and the application of appropriate compensation measures. In parallel, Ukraine should develop clear administrative procedures for assessing and approving projects that invoke the overriding public interest principle, ensuring legal certainty and streamlined decision-making while maintaining environmental safeguards.	
Lead/ participating institution	Ministry of Energy of Ukraine
Other institutions engaged	Parliament *(Verkhovna Rada – relevant committees)* Ministry of Economy, Environment and Agriculture of Ukraine All other government institutions – if relevant for RES/onshore wind energy implementation

[142] According to the Regulation of the Cabinet of Ministers of Ukraine no. 903 of July 21, 2025, the Ministry of Economy was renamed into the Ministry of Economy, Environment and Agriculture of Ukraine, the Ministry of Environmental Protection and Natural Resources and Ministry of Agriculture have been dissolved and their powers and functions transferred to the Ministry of Economy, Environment and Agriculture of Ukraine.

RECOMMENDATION V	
Theme	**Support faster preparatory stages for renewable energy projects**
Ukraine should address delays and inefficiencies in the preparatory phase, particularly regarding land designation procedures, e.g. through: • Simplifying and speeding up designating land for renewable energy development, including reclassifying land use types where necessary to allow for the siting of renewable energy infrastructure. • Introducing clear national or regional procedures and criteria for pre-approving areas suitable for renewable energy, in line with spatial planning principles and environmental sensitivity data. • Ensuring that these preparatory processes are cost-effective, time-bound, and transparent, minimising financial and administrative burdens, especially for small and medium-sized project developers. • Enabling the integration of preparatory stages into the digital permitting platform or one-stop shop framework, allowing developers to track and manage land designation steps alongside other permitting requirements.	
Lead/participating institution	Ministry for Communities and Territories Development Ministry of Energy of Ukraine
Other institutions engaged	Ministry of Economy, Environment and Agriculture of Ukraine

RECOMMENDATION VI	
Theme	**Support digitalisation of permit granting and spatial planning**
To streamline and improve transparency in the permitting process for renewable energy projects, the Government of Ukraine should prioritise the digitalisation of permitting and spatial planning systems. This is essential to meet the requirements of RED III Articles 16 and 16b, and to facilitate faster, more predictable deployment of renewable energy across the country. A key step is to ensure that all spatial and environmental data relevant to renewable energy siting is fully integrated into the E-Construction system. Users of the system should have open access to the data on: • Land-use zoning and urban planning documents. • Environmental sensitivity areas. • Grid infrastructure and capacity availability. • Existing permits and designated RAAs. In parallel, existing digital permitting platforms such as the E-Construction system could be upgraded based on user feedback. The following actions are recommended: • Eliminate current functional gaps *(e.g., inability to process permits for high-rise energy structures like wind turbines);* • Integrate the Urban Planning Cadastre — introduced in 2024 — into the E-Construction system to allow seamless data exchange for planning documents and permit applications. • Ensure full interoperability between E-Construction, NSDI, the State Geocadastre, and the Immovable Property Register, allowing applicants and authorities to access real-time planning, land ownership, and infrastructure data; • Ensure that once Martial Law ends, open access to planning and permitting data is restored, in line with the Danish model of public geospatial and planning data transparency. This digitalisation effort should be coordinated by the Ministry of Digital Transformation, in cooperation with the Ministry for Communities and Territories Development, the Ministry of Energy, and relevant technical agencies. Financing and technical support could be sought through EU programmes such as IPA III, NDICI, and Digital Europe.	
Lead/participating institution	Ministry for Communities and Territories Development Ministry of Energy of Ukraine Ministry of Economy, Environment and Agriculture of Ukraine *(depending on relevant point in the recommendation)*
Other institutions engaged	Transmission System Operator Distribution System Operators

9.2. RENEWABLE ENERGY ACCELERATION AREAS *(RAAS)*

RED III requires Member States to designate specific renewable energy acceleration areas where permitting procedures for renewable energy projects are streamlined and subject to simplified assessments. This means that projects within such zones benefit from shorter deadlines, lighter procedures for environmental screening, and exemptions from certain assessments, unless there is clear evidence of likely significant adverse effects. Member States must also map these areas based on strategic spatial planning, ensuring that suitable land or sea areas are allocated in line with their national energy and climate targets.

RECOMMENDATION VII	
Theme	**Establish a process for designating RAAs**
The Ministry of Energy should lead the initiation and coordination of a legally and procedurally robust framework for the designation of RAAs, as part of Ukraine's RED III transposition. This process should be embedded in primary legislation and supported by implementing regulations and technical guidance. It must define the institutional responsibilities for: • Mapping renewable energy potential *(wind, solar, etc.)* • Identifying candidate areas with low environmental and social sensitivity. • Conducting environmental assessments under SEA/Habitats Directives. • Formally designating RAAs based on spatial planning documentation at national, regional, and local levels. The legal provisions should explicitly state the objectives of RAAs: • To expedite renewable energy deployment. • While avoiding or minimising environmental and social conflicts. • And ensuring consistency with national energy targets, grid development plans, and Ukraine's Integrated National Energy and Climate Plan *(NECP)*.	
Lead/participating institution	Ministry of Energy, with strong engagement of: Ministry for Communities and Territories Development Ministry of Economy, Environment and Agriculture of Ukraine
Other institutions engaged	Municipal authorities *(village, city councils)*

RECOMMENDATION VIII	
Theme	**Ensure public access to RAA plans**
The framework, developed by the Ministry of Energy in collaboration with institutions such as Ministry for Communities and Territories Development, should also mandate public access to RAA plans, their periodic review, and compatibility with the requirements of Articles 15c and 15d of RED III and Commission Recommendation *(EU)* 2024/1343. Establishing an inter-ministerial working group on RAAs could help coordinate legal, spatial, environmental, and energy planning inputs and fast-track implementation.	
Lead/participating institution	Ministry of Energy, with strong engagement of: Ministry for Communities and Territories Development

RECOMMENDATION IX	
Theme	**Enable the designation of RAAs through Multi-Level Urban Planning Instruments**

The Government of Ukraine should enable the designation of RAAs through both local and regional/national urban planning instruments. This can be achieved through legislative amendments that integrate RAA designation into the preparation and revision of comprehensive spatial development plans, ensuring that suitable land for renewable energy deployment is systematically identified and legally secured.
Two legal and procedural options should be pursued in parallel:

1. Local-level designation: Allow municipalities to designate RAAs within the framework of their comprehensive plans for spatial development. These plans determine the land-use strategy within community boundaries and can be used to identify areas of high renewable potential with low conflict.
2. Regional/national-level designation: Develop legislative provisions to enable the designation of RAAs in regional or national-level spatial planning documents. This is essential for wind energy projects that span multiple communities or administrative regions, and where coordinated planning is necessary for large-scale grid-connected infrastructure.

Lead/participating institution	Ministry for Communities and Territories Development Ministry of Economy, Environment and Agriculture of Ukraine
Other institutions engaged	Ministry of Energy Municipal authorities *(village, city councils)*

RECOMMENDATION X	
Theme	**Focus on a centralised and collaborative process**

Considering situation in Ukraine – we recommend centralising the process of establishment RAAs as much as possible. Leading ministry should be identified, as well as supporting ministries to participate in legislative changes process. At the same time, good collaboration between relevant ministries *(energy, environment, spatial planning)* on RAAs should be established and local councils should be engaged. It is recommended to approach establishment of RAAs as joint, intra-ministerial task and intra-institutional task. RAAs should be designed and established considering wind and other renewables potential, the gird development plans, air space conditions in particular area etc. Consider, for example establishing a special working group on RAAs, across the government and other institutions and entities, i.e. air traffic services provider, grid operator.
At present, we recommend using the existing regulatory infrastructure *(the Law of Ukraine 'On Regulation of Urban Planning Activities', the Law of Ukraine 'On the Master Scheme for the Planning of the Territory of Ukraine' etc.)* to map and designate areas required to meet national energy targets, designate and develop Renewable Acceleration Areas *(RAAs)*.

Lead/participating institution	Ministry of Energy Strong engagement and support from: Ministry for Communities and Territories Development Ministry of Economy, Environment and Agriculture of Ukraine
Other institutions engaged	Municipal authorities *(village, city councils)*

RECOMMENDATION XI	
Theme	**Integrate environmental considerations in the designation of RAAs**
To comply with RED III and relevant EU environmental directives, the following requirements must be met for all designated RAAs: • RAAs must be in areas where the deployment of renewable energy is not expected to have a significant environmental impact. • Designation must be based on strategic SEA and, where applicable, assessments under the Habitats and Birds Directives. • Each RAA must include site-specific mitigation measures tailored to the renewable energy technologies to be deployed and the environmental conditions of the area. • The size of the RAAs should be significant in light of Ukraine's renewable energy targets, and their designation must align with the Integrated NECP. • Plans must be made public, with opportunities for early public participation, and reviewed periodically to maintain consistency with evolving energy and environmental priorities.	
Lead/participating institution	This recommendation should be implemented in close coordination between the Ministry of Energy *(lead),* the inistry for Communities and Territories Development, the Ministry of Economy, Environment and Agriculture of Ukraine and relevant local municipal authorities. Integration of environmental sensitivity mapping, spatial datasets, and public consultation processes — guided by RED III Articles 15c and 15d and Commission SWD*(2024)* 333 — is critical to ensure legally sound and publicly accepted RAA designation.
Other institutions engaged	NGOs focusing on environmental issues

9.3. ADVANCING SPATIAL PLANNING AND LAND USE FLEXIBILITY

RED III requires Member States to integrate renewable energy development into strategic spatial planning, identifying and mapping suitable areas for deployment in line with national energy and climate targets. Recommendations focus on promoting land use flexibility by encouraging multiple land uses, reducing exclusion zones, and streamlining permitting. The approach is focused on ensuring that spatial planning, permitting, and environmental safeguards are coordinated to maximise available sites, reduce conflicts, and accelerate project implementation while maintaining compliance with sustainability objectives.

RECOMMENDATION XII	
Theme	**Strategy for RES integration**
The Ministry of Energy, in consultation with other government ministries engaged in renewable energy development process, could consider developing a national strategy for spatial integration of renewables. Such strategy should establish clear spatial planning principles and ambition levels, define the role of RAAs, and be anchored in Ukraine's overall energy and climate goals, including those articulated in the Integrated National Energy and Climate Plan *(NECP)*.	
Lead/participating institution	Ministry of Energy – together with inistry for Communities and Territories Development
Other institutions engaged	Ministry of Economy, Environment and Agriculture of Ukraine Transmission System Operator

RECOMMENDATION XIII	
Theme	**Establish a Nationally Coordinated Spatial Planning Initiative for Renewable Energy Deployment**

To enable effective identification and planning of areas suitable for renewable energy development – including the designation of RAAs – the Government of Ukraine should establish a centrally coordinated, nationally funded spatial planning initiative. This initiative should aim to support municipalities, particularly those lacking financial and technical capacity, in preparing and updating comprehensive spatial development documentation aligned with RED III requirements and Ukraine's renewable energy targets. The project should include:

- Development of standardised spatial datasets *(e.g., land use, grid infrastructure, environmental sensitivity);*
- Further development of a GIS-based national platform accessible to local and regional authorities;
- Provision of technical guidance, digital tools, and training to municipalities and planning authorities;
- Coordination with the designation of RAAs and integration with environmental and energy planning processes.

In parallel, the initiative should support the filling and updating of the State Land Cadastre with reliable data on functional zoning. This can be achieved through:

- A temporary solution introduced in July 2025 by the Law of Ukraine on introduction of amendments to some legislative acts of Ukraine on usage of land plots for development of digital infrastructure, allows functional zoning to be defined outside settlement boundaries based on detailed territory plans where comprehensive plans are not yet approved before January 1, 2028;
- A sustainable, long-term approach, involving a nationwide programme for the development and approval of comprehensive spatial development plans, supported by governmental funding and international technical assistance.

Lead/participating institution	Ministry for Communities and Territories Development Ministry of Energy Ministry of Economy, Environment and Agriculture of Ukraine
Other institutions engaged	Municipal authorities *(village, city councils)*

RECOMMENDATION XIV	
Theme	**Improved guidelines on spatial planning**

Ministry for Communities and Territories Development, in collaboration with the Ministry of Energy should adopt national spatial planning guidance aligned with RED III Article 15b to support municipalities in mapping suitable land areas which would clarify issues related e.g. to multiple use of sites, limiting restrictions etc.

Lead/participating institution	Ministry for Communities and Territories Development Ministry of Energy
Other institutions engaged	Ministry of Economy, Environment and Agriculture of Ukraine

RECOMMENDATION XV	
Theme	**Zones for grid and storage projects**
Dedicated infrastructure zones for grid and storage projects could be established, especially in areas with high renewable potential. These zones must undergo SEA and benefit from fast-tracked permitting under Article 15e of RED III. Integration with spatial and energy planning is essential to reduce deployment delays.	
Lead/participating institution	Ministry of Economy, Environment and Agriculture of Ukraine Transmission System Operator
Other institutions engaged	Ministry of Energy Ministry for Communities and Territories Development

9.4. STRENGTHENING GRID PLANNING AND DEVELOPMENT

RED III requires Member States to integrate grid connection into the overall permit-granting process, with clear deadlines, a single contact point, and transparent information on available capacity from TSOs and DSOs. It also calls for simplified, proportionate procedures for repowering projects, ensuring timely and non-discriminatory grid access for renewable energy. In line with RED III, the Member State should – among others – look into providing accessible digital information on grid capacity and transpose clear legal provisions on repowering.

RECOMMENDATION XVI	
Theme	**Digital information on available grid capacity**
Digital information on available grid capacity could be made accessible by TSO and respective DSOs for the developers in simplified and general form given the informational restrictions imposed during Martial Law and the sensitive character of the information.	
Lead/participating institution	The Transmission System Operator, Distribution System Operators Ministry for Communities and Territories Development
Other institutions engaged	National Energy and Utilities Regulatory Commission *(NEURC)*

RECOMMENDATION XVII	
Theme	**Transposition of provisions on repowering**

Ukraine should begin the transposition of RED III provisions on repowering, as outlined in Articles 16a and 16c, by introducing a clear legal definition of repowering in national legislation and establishing a streamlined permitting framework for upgrades of existing renewable energy installations. Key elements of the transposition should include:

- A legal definition of repowering in national energy and environmental law, distinguishing it from new developments.
- A simplified or fast-track permitting process for repowering projects, provided the environmental and spatial impacts do not exceed those of the original installation.
- Clear criteria for when full environmental assessments are required (e.g., significant changes in location, size, or technology);
- Inclusion of repowering provisions in sector-specific legislation and permitting guidelines, to provide legal certainty for developers and authorities.
- Coordination with grid operators to facilitate streamlined grid connection upgrades for repowered installations.

This implementation process should be led by the Ministry of Energy, in coordination with the Ministry of Economy, Environment and Agriculture, and supported by legal drafting expertise through EU technical assistance instruments such as TAIEX or Twinning.

Lead/participating institution	Ministry of Energy Transmission System Operator
Other institutions engaged	National Energy and Utilities Regulatory Commission *(NEURC)*

RECOMMENDATION XVIII	
Theme	**Enabling innovation and supporting new technologies**

To support the deployment of new renewable energy technologies and accelerate the uptake of smart energy systems, Ukraine should establish a regulatory sandbox framework for the energy sector. While not an immediate legislative priority, creating the necessary legal basis and administrative mechanisms now will ensure Ukraine is well-positioned to test and scale innovative solutions in the medium term. The regulatory sandbox should allow temporary, controlled exemptions from standard regulatory requirements for real-world testing of innovative energy projects, including:

- Smart grids and demand-side flexibility solutions;
- Hybrid renewable installations *(e.g. wind-solar-storage combinations);*
- Sector coupling technologies, such as power-to-heat or power-to-hydrogen.

Key features of the sandbox framework should include:

- Clear eligibility criteria and a transparent application process for project developers;
- Defined time limits and geographic scope for sandbox operations;
- Reapplication and exit procedures for tested innovations;
- Strong oversight and monitoring mechanisms to ensure safety, environmental protection, and knowledge sharing;
- Coordination with energy market regulation and grid planning frameworks to ensure integration of tested technologies into the broader system.

This initiative could be spearheaded by the Ministry of Energy, in close cooperation with the National Energy and Utilities Regulatory Commission *(NEURC)*, and supported through EU-funded programmes *(e.g., Horizon Europe, Digital Europe)* or technical assistance via TAIEX.

Lead/participating institution	Ministry of Energy National Energy and Utilities Regulatory Commission *(NEURC)* Ministry of Economy, Environment and Agriculture of Ukraine

9.5. ENVIRONMENTAL CONSIDERATIONS AND PUBLIC PARTICIPATION

RED III requires Member to designate Renewable Energy Acceleration Areas, apply simplified permitting in such areas, and ensure early public participation during their designation. It also mandates legally binding accelerated permitting deadlines *(12–24 months)* that integrate environmental procedures, while allowing limited EIA exemptions in RAAs. The recommendations call for Ukraine to strengthen early public participation, embed the 'overriding public interest' principle for renewables, streamline and align environmental impact assessment *(EIA)* procedures — particularly in renewables go-to areas *(RAAs)*

RECOMMENDATION XIX	
Theme	**Ensure effective and early public**
Ukraine already has a legal basis for public participation in environmental matters through its the Aarhus Convention and its national EIA and SEA legislation. To meet the enhanced participation standards under the Directive, the following is suggested: • Public consultation should occur early in the permitting and planning process, particularly during the designation of RAAs as required by Article 15d. • The implementation of the Directive's provisions, such as the creation of a single contact point, development of a digital 'one-stop shop', and public access to permitting guidelines and decisions, should be used to further improve transparency, accessibility, and inclusiveness of public involvement.	
Lead/participating institution	Ministry of Energy Ministry of Economy, Environment and Agriculture of Ukraine

RECOMMENDATION XX	
Theme	**Introduce the 'overriding public interest' principle**
Introduce into the Ukrainian law the presumption that renewable energy projects and related infrastructure serve an overriding public interest, as defined in Article 16f. This presumption can streamline derogation procedures under national adaptations of the Habitats, Birds, and Water Framework Directives where applicable, but must be balanced by environmental assessment and mitigation measures. Allow for targeted limitations *(e.g., by technology, region, or project type)* in line with national planning priorities, and ensure transparency when applying such exceptions.	
Lead/participating institution	Ministry of Energy Ministry of Economy, Environment and Agriculture of Ukraine

RECOMMENDATION XXI	
Theme	**Streamline EIA requirements within RAAs**
Align national procedures with Article 16a, which allows for limited EIA exemptions for projects located within RAAs. Ensure that a screening process is in place to assess whether a project may result in significant unforeseen adverse effects not captured by the SEA. Where such significant unforeseen adverse effects are likely, a full EIA is required.	
Lead/participating institution	Ministry of Economy, Environment and Agriculture of Ukraine Ministry of Energy

RECOMMENDATION XXII	
Theme	**Align permitting timelines with environmental procedures**
Ensure that Ukraine's national permitting framework and other legislation containing rules that directly or indirectly affect the duration of permitting process incorporates legally binding timelines that are compatible with the Directive's accelerated permitting deadlines *(12–24 months)*. These deadlines must also account for the completion of environmental assessments *(SEA, EIA, Natura 2000)*, without compromising their integrity. Support efficient, well-scoped, and digitally managed EIA procedures that can be conducted within these timelines, including fast-track options for low-risk or repowering projects.	
Lead/participating institution	Ministry of Economy, Environment and Agriculture of Ukraine Ministry of Energy

RECOMMENDATION XXIII	
Theme	**Ensure early involvement of environmental authorities**
Require the early consultation of environmental authorities in the planning and designation of RAAs and the design of permitting frameworks. Institutionalise their role in providing guidance on screening criteria, sensitivity mapping, and the development of mitigation measures. Recognise that balancing environmental protection with rapid deployment may require inter-agency coordination and capacity building at national and local levels.	
Lead/participating institution	Ministry of Economy, Environment and Agriculture of Ukraine Ministry of Energy

9.6. OTHER RECOMMENDATIONS NOT DIRECTLY LINKED TO RED III

RECOMMENDATION XXIV	
Theme	**Extension of the EIA conclusion validity and its use for other permits**
Given the war-induced delays in wind power plants projects and the uncertain timeline for their completion, it is reasonable to extend the validity of the EIA conclusion and the ability to obtain permits based on it.	
Lead/participating institution	Ministry of Economy, Environment and Agriculture of Ukraine Ministry of Energy
Other institutions engaged	National Energy and Utilities Regulatory Commission *(NEURC)*

RECOMMENDATION XXV	
Theme	**Amendments on enlisting changes in wind power plants parameters as activities exempt from reconducting EIAs**
The Law on EIA should explicitly list changes in wind power plants parameters as activities exempt from reconducting EIAs during martial law if they meet the Criteria. Due to war-related delays and technological changes *(e.g., increased turbine capacity and height)*, many Developers need to reconduct the EIA. Therefore, provisions should allow for flexibility and avoid repeating the EIA if changes do not increase risk to the flora and fauna as well as increase hazardous waste, emissions, or other pollutants.	
Lead/participating institution	Ministry of Economy, Environment and Agriculture of Ukraine Ministry of Energy

RECOMMENDATION XXVI	
Theme	**Amendments on requirements for the EIA reconducting**
The Law on EIA should provide that the requirement for the EIA reconducting does not apply to changes that do not have a significant impact on the environment in accordance with the Criteria. Until the changes are made to the law, it would be appropriate to provide an official clarification from the relevant Ministry that there is no need to undergo the EIA once again if the changes made to the project do not cause additional negative environmental impacts compared to the original project.	
Lead/participating institution	Ministry of Economy, Environment and Agriculture of Ukraine Ministry of Energy
Other institutions engaged	Verkhovna Rada of Ukraine, Ecological Policy and Nature Management Committee of Verkhovna Rada

RECOMMENDATION XXVII	
Theme	**Introduction of procedural rules applicable to disputes related with the environment during onshore wind development**
Ukraine should study the peculiarities of disputes concerning EIA, environmental and permitting procedures that have been considered in Ukrainian courts during last few years and develop solutions that can speed-up dispute resolution procedures, deploying best-practices implemented in other EU countries and described in this report.	
Lead/participating institution	Ministry of Justice of Ukraine
Other institutions engaged	Ministry of Economy, Environment and Agriculture of Ukraine Ministry of Energy

RECOMMENDATION XXVIII	
Theme	**Technical assistance for training**
Short-term expert assistance for legal alignment and capacity-building with EU Member States can be requested, within Technical Assistance and Information Exchange *(TAIEX)* and Twinning. Ukraine could request TAIEX services to fund training programs e.g. in urban planning and cadastre integration.	
Lead/participating institution	Ministry of Energy Strong engagement *(relevant to area of training):* Ministry for Communities and Territories Development Ministry of Economy, Environment and Agriculture of Ukraine
Other institutions engaged	International institutions

RECOMMENDATION XXIX	
Theme	**Use of assistance funds**
Given complexity and costs of such exercise, there should be dialogue regarding possible assistance, e.g. from the EU Instrument for Pre-Accession Assistance *(IPA III)*.[143] Another option would be Ukraine is a top recipient of NDICI funds. A large-scale, centrally coordinated spatial planning & RES mapping project could qualify under green energy and digital transition envelopes.	
Lead/participating institution	Ministry of Energy Ministry for Communities and Territories Development
Other institutions engaged	European Union *(EU Representation in Ukraine)*

RECOMMENDATION XXX	
Theme	**Relax legal barriers to land use changes**
Relax legal barriers to land use changes such as allowing lessees *(with owner consent)* to initiate land use change procedures. Simplify rules on land categorisation, easements, and temporary uses to reduce project delays. Powers to issue urban planning conditions and restrictions for the development of wind power plants which land plots are located within the territory of two or more territorial communities could be granted to Regional State Administrations *(Regional Military Administrations)* to ensure the issuance of single urban planning conditions and restrictions and avoid situations when developers need to obtain separate urban planning conditions and restrictions for the development within the territory of every territorial community.	
Lead/participating institution	Ministry of Energy Ministry for Communities and Territories Development
Other institutions engaged	Ministry of Economy, Environment and Agriculture of Ukraine

[143] IPA has supported land use planning and GIS reforms in Western Balkans.

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ANNEX I

TYPES OF SPATIAL *(URBAN)* PLANNING DOCUMENTATION

	DOCUMENTATION	DESCRIPTION	CONTENT
National level	General scheme of planning the territory of Ukraine. Planning schemes for certain parts of the territory of Ukraine.	Defines priorities and conceptual solutions.	Determines the territorial planning and land use in the country the improvement of settlement systems, the promotion of sustainable development of settlements, the development of production, social, and engineering-transport infrastructure, and the formation of a national ecological network.
Regional level	Territorial planning scheme of the Autonomous Republic of Crimea and regions of Ukraine. District planning schemes.	Developed as an extension of the Master Scheme for the Planning of the Territory of Ukraine. They define the fundamental solutions for the development, planning, construction, and use of the territories of administrative-territorial units and their individual parts.	Identifies the territories requiring state support for development, ensuring environmental protection, sustainable use and restoration of natural resources and ecosystems, development of the national ecological network at the regional level, engineering-transport and social infrastructure, and protection of cultural heritage. Defines the development of a rational spatial organisation of the region's territory, including: ensuring optimal living conditions for the population, rational use of natural resources, development of economic sectors, environmental protection, and civil protection, including fire and technogenic safety; consideration of engineering and technical civil protection measures for the respective territory; preservation of valuable cultural heritage sites; protection of settlements and territories from hazardous geological and hydrogeological processes; creation of transport and engineering infrastructure.
Local level	Comprehensive plan of spatial development of a territorial community. Master plan of a settlement. Zoning plan. Detailed territory plan.	Defines specific spatial planning on the local level and is necessary for the development of construction projects and land allocation.	Determines the spatial organisation of the territories of settlements, their functional zoning, land use conditions, requirements for development and improvement. It regulates the location of residential, public, industrial, engineering and transport infrastructure, establishes urban planning restrictions, ensures environmental protection, preservation of cultural heritage and considers civil protection measures.

ANNEX II
TEMPLATE ON RED III TRANSPOSITION

(selective examples from template preparing RED III transposition)

ARTICLE OF THE DIRECTIVE	SCOPE *(ABBREV.)*	ADDITIONAL LEGISLATION AND GUIDELINES	RESPONSIBLE INSTITUTIONS	NATIONAL LEGISLATION TRANSPOSING THE PROVISIONS	COMMENT
Article 15c **Renewables acceleration areas**	• Adopting plans designating renewables acceleration areas for one or more types of RE sources • Designate land/inland water/sea areas where deployment of RE sources is not expected to have a significant environmental impact • Establish rules for the RE acceleration areas on effective mitigation measures for installation of RE plants/co-located energy storage/assets necessary for connection and storage to grid, to avoid adverse environmental impact or to significantly reduce it – targeted to specificities of each RE acceleration area, to the RE technology/ies to be deployed in each area and to • the identified environmental impact *(compliance with the Habitats, Birds and Water Framework Directives)* • Explain in plans the assessment made to identify each RE acceleration area • Plans are subject to environmental assessment, pursuant to the Habitats and the SEA Directive *(if significant impact on Natura 2000 sites)* • Decide the size of RE acceleration areas, in view of specificities and requirements of the technology/ies, ensure that combined size of those areas is significant • Plans on RE acceleration areas shall be made publicly available and reviewed periodically ensuring alignment with integrated NECPs.	Commission Recommendation *(EU)* 2024/1343 of 13 May 2024 on speeding up permit-granting procedures for renewable energy and related infrastructure projects Dedicated guidance on the designation of renewables acceleration areas in Commission Staff Working Document SWD*(2024)* 333	Lead: Coordination/ participation: • To be filled by Ministry of Energy/another relevant institution in the legislative process		

Article 16a **Permit-granting procedure in renewables acceleration areas**	• Permit-granting procedure in Art. 16*(1)* shall not exceed 12 months for RE projects in RE acceleration areas. Offshore RE projects: shall not exceed 2 years. • *(Extraordinary circumstances: may extend by up to 6 months).* • Repowering: new installations <150 kW/ co-located energy storage/ power and thermal facilities/grid connection located in RE acceleration areas: shall not exceed 6 months. Offshore wind energy projects: shall not exceed 12 months. • *(Extraordinary circumstances: may extend the 6-month period by up to 3 months and the 12-month period for offshore wind energy projects by up to 6 months).* • New applications for RE plants/plants combining RE technologies/repowering of RE power plants in designated RE acceleration areas/co-located energy storage/connection of such plants and storage to the grid are: • exempted from dedicated EIA provided that those projects comply with Article 15c*(1)*, point *(b)*, of this Directive, unless the project is likely to have significant effects on the environment in another MS, or where a MS that is likely to be significantly affected so requests, pursuant to Article 7 of the EIA Directive. • not subject to Natura 2000 assessment provided that the RE projects comply with the rules and measures established in accordance with Article 15c*(1)*, point *(b)* • A screening process is to be conducted of the applications for potentially significant unforeseen adverse effects in view of the environmental sensitivity of the geographical areas where they are located, which were not identified during the environmental assessment of the plans designating RE acceleration areas. • The screening process relating to applications for new RE plants shall be finalised within 45 days. For installations with an electrical capacity < 150 kW and new applications for repowering of RE power plants, the screening process shall be finalised within 30 days.				

NOTES

Report: Legal Barriers for onshore wind energy generation development and developing the regulatory framework of the RES sector in Ukraine

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