

IEA Support to Accelerating Renewable Energy Permitting (ARPE)

Streamlining Administrative Procedures

**Virtual workshop
15 November 2023**

Main findings

**International
Energy Agency**

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Introduction

Workshop background

The workshop on **Streamlining Administrative Procedures** was the first of a series of four virtual events scheduled within the IEA Support to Accelerating Renewable Energy Permitting (ARPE) action. This is a project funded by the European Union via the Technical Support Instrument, which is managed by the Reform and Investment Task Force (SG REFORM) from the European Commission. The project is implemented by the International Energy Agency (IEA), in cooperation with the European Commission.

The overarching objective of the action is to assist five focus countries – Finland, Ireland, Lithuania, the Netherlands and Slovakia – in developing and implementing policy and regulatory measures aimed at **reaching their renewable energy targets**, notably through **accelerating permitting**.

In support of this objective, the IEA has organised and facilitated three workshops and a dedicated offshore wind workshop. The objective of these workshops is **to understand the challenges and priorities of the focus countries**, share international best practices, and offer a platform for discussion.

On 15 November 2023, the IEA Secretariat brought together experts from governments, industry, academia and regulators to discuss the **challenges and best practices in accelerating and streamlining administrative procedures in renewable energy permitting**. Topics included setting up one-stop shops, simplifying rules, digitalisation of the permitting process, streamlining environmental impact assessments (EIA), introducing renewable energy acceleration zones and imposing strict deadlines for application processing. The workshop also included presentations from focus countries, sharing status of renewables deployment, recent improvements in permitting and key challenges for the coming years.

This document is a summary of the main outcomes of the workshop. It provides examples of proven solutions with an aim of informing policy development.

European Union renewable energy acceleration plans

In May 2022, the European Commission released the [REPowerEU Plan](#) aimed at **rapidly accelerating the clean energy transition**. The plan includes increasing the 2030 target for renewable energy in the overall energy mix to 45% – up from 40% in the 2021 proposal. Achieving this will require more than **1 200 gigawatts (GW) of installed cumulative renewable power capacity by 2030**, almost double that of 2023.

According to [IEA analysis](#), European Union (EU) Member states added almost 80 GW of new renewables capacity in 2023, a record level and triple the average deployment in five years preceding the energy crisis caused by Russia's full-scale invasion of Ukraine. **Reaching 2030 targets requires maintaining this high pace of growth throughout the rest of this decade**, necessitating swift action in tackling several key challenges.

The key barrier to rapid renewables deployment in many EU Member states is **lengthy and complex administrative procedures related to project permitting**. Unnecessarily strict reporting requirements, lack of co-ordination among government agencies, understaffed administrative offices, overlapping responsibilities, lack of digitalisation, and lack of maximum processing deadlines lead to significant delays and increased risk in renewable energy project development, rising costs and discouraging investment. In some Member states, completing the **permitting process can take up to five years for utility-scale solar photovoltaic (PV) projects and up to nine years for onshore wind**, which puts EU targets at risk.

In May 2022, the European Commission released recommendations on permitting, including on identification of renewable acceleration areas (RAAs) where shortened and simplified permitting can be applied. In November 2023, a revised [Renewable Energy Directive](#) came into force, with additional measures regarding permitting, including **transition to electronic-only procedures, and the imposition of shorter and stricter processing deadlines** in renewables acceleration zones. According to the revised Directive, Member states need to ensure that the permitting process doesn't exceed two years (three years for offshore wind), including EIA, and even less in RAAs and in case of repowering. In the past year, many Member states have introduced significant policy improvements; however, much remains to be done to ensure that the EU energy transition is not delayed by the permitting challenge.

Main findings

Reduce the complexity of procedures and set up one-stop shops

Streamlining lengthy and complex permitting processes is key to accelerating renewables deployment. An analysis of permitting procedures in several countries conducted by the Organisation for Economic Co-operation and Development (OECD) found that an onshore wind farm project can go through up to 20 administrative steps before obtaining a final construction approval. A similar study conducted by EDP Renewables in nine European countries found that a renewable project permitting process involves about 16-18 distinct entities on average, mostly various central and local government agencies. In the process, on average about 16-19 high-volume files need to be submitted, and the whole process usually takes three to four years. In the most extreme cases, the number of involved entities can reach 30, requiring 100 separate files with the whole process taking up to seven years. Such level of process complexity and duration is a **significant obstacle to project development and a key challenge in accelerating renewables deployment** in many EU Member states.

The major challenge is often the design of the permitting process itself, which often includes a **large number of stakeholders, duplication of efforts, overlapping of responsibilities and lack of clarity**. In many cases, the steps of a permitting procedure are not known at the beginning of the process, to the applicant or to the officials on the administrative side. In some instances, new authorities get involved in late stages of the process, without developers being informed of such need in advance. Lack of clarity results in inefficient intergovernmental co-ordination, redundancies and conflicting requirements, making the process very difficult to navigate by the developer.

The first step to streamline the procedure, which was recommended at the workshop, is to thoroughly **map all the processes and authorities involved, including their roles and responsibilities**. This knowledge can be applied to revamp the process, remove the redundancies and improve the co-ordination among offices. The optimal solution mentioned by multiple workshop speakers is **making the centralised authority responsible for permit handling and acting as a single contact point** (one-stop shop) for developers. The Revised Renewable Energy Directive, Article 16, already provides a requirement for Member states to set up one-stop shops that should guide the applicant through and facilitate the permitting process, including EIA.

At the same time, countries should **consider reducing the number of permitting process steps, enable parallel processing** and reduce the requirements, especially for small-scale systems with low environmental footprints. Speakers mentioned that instructions given to

administrative offices regarding the permitting process need to be as clear as possible, with an overriding rule to interpret any unclarities in favour of the applicant.

Permitting process improvements should be introduced in a comprehensive way, addressing as many identified issues as possible. In some cases, seemingly unrelated issues, such as delays in securing road transport permits for bulky components, can be a significant cause of project delays. Clear communication about the organisation and requirements of permitting is also very important for developers to be able to navigate the process.

There are several successful examples among EU Member states of improvement of renewable permitting processes. **Germany** has already introduced a one-stop shop for offshore wind projects, which is responsible for interacting with numerous agencies, including local governments, and authorities responsible for building regulations, emissions control, nature conservation, military, aviation, forestry, water, highways, roads, agriculture, monuments and mining. The procedure itself is still very complex, although centralising it in one agency was one of the reasons behind the recent acceleration in onshore wind permitting. Another central authority, the national maritime agency, was also designated as a single contact point for handling offshore wind permits.

Finland is in the process of establishing a centralised permitting, supervision and monitoring agency. The plan includes merging several regional agencies into one organisation responsible for handling permits and environmental impact procedures in an effective and user-friendly manner. Multiple permitting processes would be merged into one process, ending with a single official decision.

Greece introduced a simplified licensing process in 2022, reducing the total number of steps in the permitting process from seven to five and enabling parallel processing. The process was fully digitalised, and deadlines for both administrators and investors were shortened. The target of the new regulation was to shorten the licensing process from 5 years to just 14 months.

In **Estonia**, a new regulation is aiming to shorten the permitting process duration from five-seven years to two-three years by integrating land use, water use and building permits. Finally, in **Portugal**, authorities together with an association of renewable energy companies published a comprehensive guide on permitting, helping developers to assess risks and properly prepare for the process.

Simplify environmental impact assessment processes and impose effective permitting processing deadlines

Limiting an extensive scope of EIAs required for low-footprint projects and introducing strict permit handling deadlines are necessary to reduce project development delays. The scope of assessments required by administrative offices in the permitting process in many countries can be disproportional to the footprint of the project under development. An example presented in the workshop was 75 thick folders of documents required for repowering of ten wind turbines or 60 folders for constructing three new wind turbines in Germany.

Simplification of EIAs for selected technologies with limited and well-understood environmental impacts could potentially significantly accelerate project development without substantial harm to the environment. An EIA process is often the most lengthy and costly stage of permitting. The challenges related to EIAs mentioned during the workshop include lack of risk-based proportionality and forcing even small, low-profile projects to undergo an extensive assessment, where even a very limited impact e.g. on biodiversity can prevent the construction. In addition, the criteria for biodiversity impacts are often insufficiently specified, making it difficult for developers to assess risks and develop mitigation measures. Especially for small-scale projects, costs associated with detailed EIAs can make up significant share of capital expenditure, challenging the business case.

Setting and enforcing deadlines for project permitting is also fundamental for speeding up the process. Another important challenge mentioned in the workshop was lack of enforceable deadlines for permitting handling. The revised Renewable Energy Directive sets a requirement of imposing a two-year deadline for the permitting process, with a possibility of one-year extension in extraordinary circumstances. In most Member states the deadlines were not yet introduced. In addition, speakers mentioned that introducing effective deadlines requires complementing them with a positive silence rule, where lack of response from the authorities is interpreted as a positive decision. Offices also need to have adequate capacity to be able to adhere to required timelines.

Giving renewable energy investments the status of overriding public interest is another important permitting acceleration tool often mentioned by workshop speakers. This solution has been introduced at the EU level by the [European Council regulation](#) enacted in 2022. Using it allows to significantly accelerate the assessment process by giving renewable projects priority over other considered land uses, or in case of litigation. However, most Member states have not yet transposed the overriding public interest rule to national legal frameworks.

For example, **Italy** introduced **different procedures and requirements depending on the size and type of renewable plant**, with a goal to set a one-stop shop for each category. Simplified requirements were introduced first to small-scale systems and are planned to be gradually extended to larger plants and plant expansions. Regulations allow using a simplified

permitting procedure, exempting from EIAs wind plants below 60 kilowatts (kW), PV plants up to 50 kW, and rooftop PV plants up to 20 megawatts (MW) in designated industrial or commercial areas, disused landfills and quarries.

In **Spain**, renewable plants with limited environmental footprints can qualify for simplified EIAs, with an aim to reduce the duration of the process from 25 to 2 months. In **Germany**, onshore wind projects **do not need to conduct an EIA if they are placed in an area which undergoes a strategic environmental assessment**. An overriding public interest rule for renewable projects was introduced in 2022, and a positive silence rule is in the process of implementation. Introduced measures significantly reduced permitting timelines and are expected to enable acceleration of deployment in the coming years.

Identify renewables acceleration areas with simplified permitting procedures

Faster establishing of renewables acceleration areas (RAAs) is necessary to allow developers to utilise simplified permitting rules and accelerate investment. The revised Renewable Energy Directive includes a requirement for Member states to designate RAAs, where the permitting process should be simplified and streamlined. The Directive does not specify what permitting streamlining measures should be adopted in such zones, but sets targets for overall process duration, which should not exceed one year for new projects, and six months for repowering (two years and one year for offshore wind). Detailed rules regarding e.g. technologies and project sizes eligible for streamlined permitting are to be set at a country level.

Importantly, the Directive allows the replacement of the usual EIA for projects inside RAAs with **short environmental screening**, if they are unlikely to cause any unforeseen adverse effects, e.g. using proven and well-known technologies such as solar PV and wind turbines. As the EIA is usually the most costly and time-consuming part of the permitting process, replacing it with a simplified process is expected to be a significant factor enabling faster renewables deployment.

The progress in designating RAAs and setting permitting rules has been limited so far in most Member states, and several speakers expressed the need for a faster implementation. To be effective, permitting **requirements for projects inside acceleration areas should be significantly simplified**, even for relatively large systems. This can be done based on a strategic EIA of a considered area and on typical and well-understood impacts of selected technologies, such as solar PV and wind. The sooner these rules are announced, the better the industry can prepare, resulting in faster roll-out of new projects.

Even before designating official acceleration areas, governments can support renewables deployment by **providing spatial data regarding renewables development constraints**, connected with e.g. terrain, nature protection, other land use, military activity or cultural

heritage. With these data, developers can focus their efforts on the least constrained areas, and local communities improve their local planning. For maximum usefulness, such maps should be fully digitised and made freely available to the public.

For example, **Portugal** created an online tool identifying areas in the country with lower sensitivity, considering environmental, land use and cultural heritage constraints. The tool provides a **spatial analysis of the majority of the country's area** and can already be used by developers and communities in identifying potential renewables deployment zones. In the future, the tool can be used as a basis for designating RAAs with simplified permitting processes, as required by the Renewable Energy Directive.

Italy is planning to **set renewables acceleration areas on both national and regional levels**, following the introduction of regional renewable capacity targets. The government aims to develop advanced digital cartographic systems to help the process. Currently, projects are exempted from EIAs if they are placed within areas that have undergone strategic environmental assessment. This applies to PV systems with total capacity of up to 30 MW, electric energy storage, enhancement and repowering of existing PV plants, and repowering of wind plants with capacity up to 50 MW and offshore renewable plants with capacity up to 50 MW.

Increase administrative office capacity

Insufficient capacity of administrative offices handling permit applications needs to be addressed to accelerate renewables deployment. The number of renewables projects has increased significantly in recent years, leaving administrative offices in many Member states unprepared.

The first challenge is **insufficient number of trained administrative staff**. Obtaining a permit to build a small wind farm consisting of a few turbines can often require submitting dozens of folders of documents, with thousands of pages in total. All that information needs to be analysed by administrative officials with specific knowledge and expertise on the subject, which is often lacking, especially on a provincial level. The number of projects that submit applications can reach hundreds or thousands per year in some Member states, resulting in an enormous workload for the administration.

The administrative staff also needs to be well trained in subjects related to renewable projects to maximise their performance. A planned simplification of permitting processes could potentially decrease the volume of data that needs to be processed by the administration. However, it is unlikely that permitting processing deadlines required by the Renewable Energy Directive would be possible to be met in many Member states without increasing numbers of staff involved in the process.

Digitalisation of the permitting processes can speed up the process and increase the efficiency of administrative staff. The insufficient digitalisation of the permitting process is a key challenge in many Member states. The revised Renewable Energy Directive requires a switch to digital-only procedures by November 2025, highlighting the importance of digitalisation. Currently, many Member states allow digital handling of some parts of the process; however, paper documents are usually still needed. In some cases, this creates a necessity to print multiple copies of thousands of pages, creating unnecessary costs and environmental damage.

Digitalised documents can also be analysed through **specialised software**. Creating online interfaces between developers and the administration can potentially significantly streamline the communication and expedite the process of requesting and sending additional files. Digital tools can also allow developers and overseeing administrators to monitor the progress of the permitting process across multiple engaged stakeholders. Having a better clarity about the permitting progress can be very important for developers, allowing them to better plan further project development steps and manage risks.

For example, both **Italy** and **Estonia** are planning to increase public administration staff, as well as ensure proper training, especially with regard to EIAs. **Lithuania** is focusing on increasing capacity building among the authorities and various other stakeholders involved in renewable energy projects.

Italy is also in the process of implementation of an online Geographic Information System (GIS), which would provide comprehensive spatial information regarding renewables go-to and restricted areas, infrastructure (grids), existing projects, and available renewable resources. The system would be used to help with planning and monitoring of renewables deployment. Italy is also introducing a single national platform for submitting permitting applications, with the aim of creating a single digital one-stop shop for permitting handling.

Finland is planning to introduce high levels of digitalisation in its planned centralised permitting system. It is also planning to increase the digitalisation of many environmental procedures and information systems related to permitting. **Denmark** introduced artificial intelligence (AI) tools to speed up the EIA process.

A comprehensive digital permitting solution is currently under development by a wind industry association, in co-operation with private sector software developers and international organisations. The application is expected to enable administrative staff, developers and local communities to follow the permitting process, submit documents and monitor progress using a user-friendly one-stop shop. The application is being tested in several EU Member states.

Simplify rooftop PV grid connection and deployment in multi-apartment buildings

Faster rooftop PV deployment requires addressing challenges related to investments in multi-apartment buildings and overly complicated grid connection procedures. Challenges related to administrative procedures in rooftop PV permitting are often different from larger-scale and ground-mounted technologies and require dedicated solutions.

Procedures related to rooftop systems should remain as simple as possible, due to limited impact on environment and lack of land use. Current rules in many EU Member states already allow very simple procedures for installing PV on rooftops of single-family residential buildings; however, investments in multi-apartment buildings often remain challenging. In many cases regulations are unclear regarding placing PV panels in common rooftop areas, or making an investment requires agreement from all apartment owners, which can be difficult to obtain. If governments implement rules facilitating such investments, large rooftop areas located close to demand in city centres would become available for PV systems.

Speakers mentioned that administrative procedures related to grid connection of rooftop PV systems remain overly burdensome in many countries. Rules for small-scale systems, e.g. below 50 kW, should include only a requirement to notify the local grid operator about the need to connect PV systems, with a set deadline for conducting necessary connection works. **The certification of the whole rooftop PV system could be done based on quality certificates of its individual parts**, without the need for a grid technician to perform a detailed examination. Introducing digital portals enabling rooftop PV owners to submit connection applications could further streamline the process.

Another highlighted challenge is insufficient clarity regarding restrictions for installing rooftop PV systems in cultural heritage or architecture protection zones. In many cases, opportunities to discuss benefits and drawbacks of such investments are very limited and rules overly strict, excluding large portions of cities from any rooftop PV investments. Central or local governments should implement procedures enabling larger flexibility in installing rooftop PV systems in such areas.

For example, in **Spain**, regulations allow installation of rooftop PV in multi-apartment buildings for private use if one-third of tenants support it. In the case of rooftop PV for common areas, a majority vote from owners is required, provided that the annual cost does not exceed the amount of nine ordinary monthly payments of common expenses. The cost of these works, or the amounts necessary to cover the loans or financing granted for this purpose, will be considered as the building's general expenses.

In **Germany** no permit is required for deployment of solar roofs and facades, as they are treated simply as “building add-ons”. This rule does not apply to cultural heritage buildings, or

in areas with specific land or regional development plans forbidding such additions. Installers are responsible for adhering to all technical requirements regarding buildings and electrical systems, as laid out in relevant standards, without a need of supervision by additional inspectors. In addition, the country is considering allowing grid connection certification of PV rooftop systems under 500 kilowatts peak (kWp) installed capacity and under 270 kWp of maximum grid injection capacity, based on the quality certificates of individual components only. In **Ireland**, no permit is required for installation of solar roofs, with the exception of military zones, protected structures and architectural conservation areas.

In **Greece**, rooftop PV owners do not need to obtain a grid connection permit. The only requirement is to the distribution system operator, who should come back to the owner within 15 days with a connection works offer, which should be signed by the owner in 60 days. Similar procedures were implemented in **Sweden** and are under discussion in **Italy**, where the testing and verification of a grid connection of a rooftop PV system below 20 kWp can be performed by a certified electrician instead of a grid operator specialist.

Portugal introduced a digital portal enabling online grid connection and permit granting procedures for rooftop PV. It can be used for declarative purpose for systems with installed capacity of 4 kWp to 30 kWp and procedural purposes for systems between 30 kWp and 1 megawatt peak. In the second case, after the developer submits the application, the relevant government office in co-ordination with the distribution system operator and municipality is required to provide a decision in 20 days. If the decision is positive, the developer has two years to deploy the system.

Preliminary recommendations

Based on workshop findings, policy makers should consider focusing on the following actions to address challenges related to permitting administrative procedures:

- Streamline permitting process by reducing the number of procedures and improving co-ordination among all stakeholders.
- Centralise permitting handling by creating a single authority responsible for the process and acting as a single contact point (one-stop shops).
- Consider lowering the scope of EIAs for renewable technologies that have well-understood and overall limited impacts.
- Accelerate designating renewable acceleration areas and significantly streamline permitting requirements for renewable projects inside these areas.
- Implement an overriding public interest principle in renewable energy projects permitting.
- Improve administrative offices' capacity by increasing staffing, providing more training and digitalisation.
- Implement simplified grid connection procedures for small-scale rooftop PV systems and regulations enabling rooftop PV development in multi-apartment buildings.

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