

We are *not on track* to meet the Paris Agreement's objectives. What should we do?

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Permitting is still not fast enough and is slowing down the energy transition





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Length of permitting for clean power and clean mobility

- 1. Government efforts focused on reducing the time required for procedures and appeals in many countries, particularly in the member states of European Union, have been introduced.
- 2. Therefore, administrative approval procedures lag technological advances in renewable energy projects.
- 3. The technological resources evolution could be used in procedures to compensate for administrative slowness.
- 4. Geopolitical events and uncertainties will impact the pace at which we can decarbonize the energy system, as more money is diverted to ensuring sovereignty and security of supply.

Introduction

We are at a time when the global energy transition is in full swing. With the climate crisis becoming a matter of urgency, countries must now rise to the challenge of achieving carbon neutrality by 2050. Carbon neutrality is a global balance between greenhouse gas emissions and their removal from the atmosphere. This objective was set by the 2015 Paris Agreements, to which the countries with the highest greenhouse gas emissions, such as the EU, the United States and Brazil, are the main parties.

For countries, reducing gas emissions means gradually replacing their consumption of fossil fuels (gas, coal, oil) with low-carbon energies (nuclear), before making a complete transition to renewable energies (wind, solar). These countries are therefore facing major challenges to overhaul their production systems and switch to renewable energy, which requires speeding up the development of renewable energy projects.

The European Union and Australia have shown themselves to be innovative by introducing tools to simplify and accelerate their project authorization procedures. However, with 2030 fast approaching, it is becoming necessary for governments to turn to means other than administrative reform. Increased investment in networks and the use of fast-growing technologies such as AI would appear to be necessary to achieve the targets set for 2030.



What we are seeing

Some countries are therefore leaders in speeding up permit procedures. This is thanks to innovative solutions that call on a variety of resources, whether financial, technological or human. However, in some countries, consuming renewable energy is not (yet) an attractive option. This is the case in the United States, for example, where consumption patterns remain mainly dependent on fossil fuels. This can be explained by the fact that most of those countries are fossil fuels producers, as well as a great deal of competition on the fossil fuels market, particularly from shale gas. For the USA, shale gas consumption increased by 71% since 2009 to counter Canada's energy dependence. For countries in which shale gas consumption is important, such as the USA, the shift from fossil sources to low-carbon is not the most economical option because the investment cost of changing consumption patterns of shale gas would be difficult to recoup.

Government efforts focused on reducing the duration of permitting and legal proceedings, particularly in the EU

Shorter administrative procedures within the EU

The European Union's objective was to rapidly reduce its dependence on natural gas as a result of the war in Ukraine, and to achieve the targets set for 2030 by the Paris Agreements and the Green Deal.

Following the revision of the RED II Directive in 2023, which required member states to shorten administrative authorization procedures, the European Commission published a report on progress in 2024. The report shows that Sweden had shortened the time taken to develop the networks by ensuring that the works were carried out in parallel. It had also tightened up

the provisions of RED II, which set the time limit for granting permits at one year, by deciding that extensions to this time limit would be subject to force majeure. These development policies have made Sweden one of Europe's leading green electricity producers (60.1%) along with Germany, Spain and Portugal.

Some projects are being slowed down because they are being challenged in the courts. For example, France has reduced the number of possible appeals against environmental authorizations for onshore wind projects to two years since 2018. Some projects, such as cross-border grid developments, are considered to be of national importance. For example, in Latvia, these projects are given priority, and their assessment is accelerated.

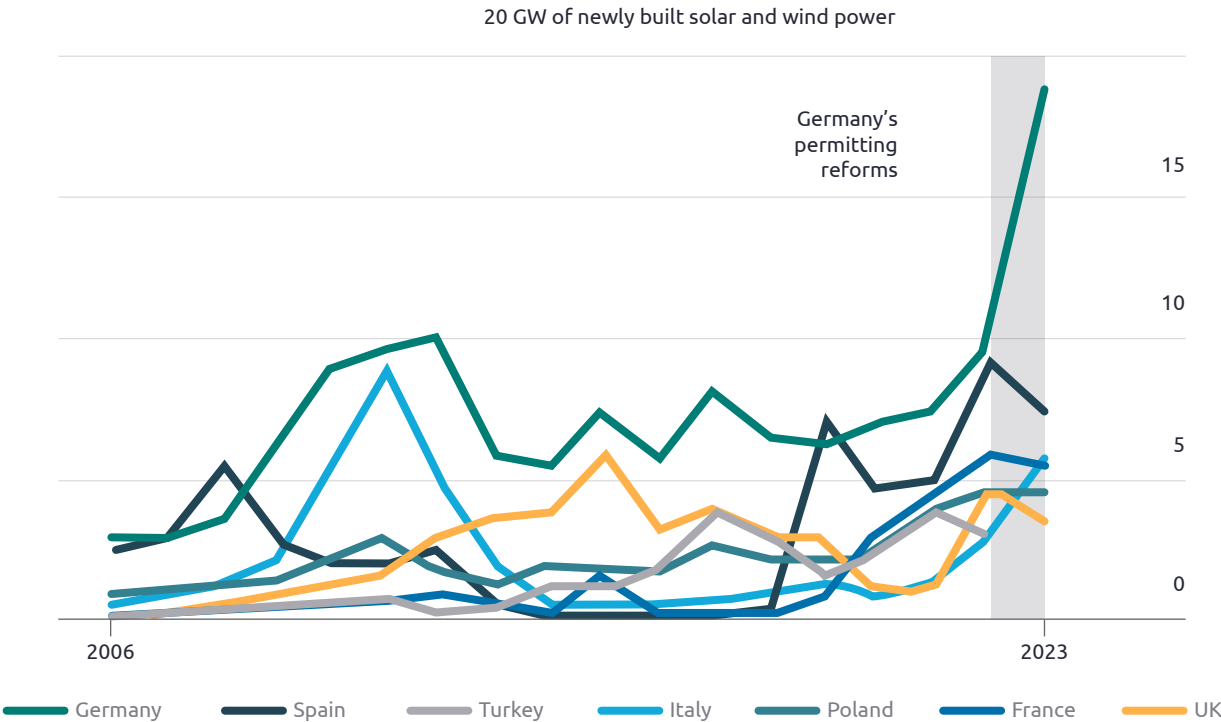


Permitting reforms in Europe

The Figure 1 shows how Germany since 2022, has been leading the way in reforming the procedures for granting renewable energy permits in Europe (according to Bloomberg). It is interesting to note that Germany by reducing the environmental requirements (EIA) and the possibility of legal challenges, is in line with the ambitious objective set out in Article 16 of the EU Renewable Energy Directive (no more than one year in obtaining the permits).

FIGURE 1
Germany leads the way in permitting reforms

Germany has pursued the most aggressive permitting reforms across Europe since 2022, which shows in its renewables buildout



Source: BloombergNEF



Client Story



French-owned state railway operator, SNCF, has recently created a new subsidiary called SNCF Renouvelables with the aim of launching photovoltaic projects on all its land in France (Voltaferro Project).

How we see this market / issue

SNCF Renouvelables aims to cover 15-20% of the Group's current electricity needs and deliver a first tranche of photovoltaic plants covering 1,000 acres by 2030, providing a capacity of 1,000 MWc of electricity (Voltaferro Project).

What we are doing

We advised SNCF on the structuring and the design of the project. Our task was to identify the legal procedures that would speed up the harmonized implementation of the projects by using the exemption from public procurement rules and by centralizing the implementation of the projects in the dedicated subsidiary.

Today, 94 sites spread over 633 hectares have already been studied. The first operations, including environmental impact studies, are due to take place in autumn 2024.

Partner Story



Enedis is the main French distribution system operator, managing 95% of the electricity distribution grid in France.

How we see this market / issue

In order to improve the connection of renewable energy producers to the distribution grid, Enedis is trying to simplify the technical rules for grid connection by proposing new measures in French law.

What we are doing

We advised Enedis to find the best way to integrate its proposals into the government's legislative project and to propose that these rules be adopted by ordinance in order to speed up the process of implementing the measures. These measures included, for example, simplifying the amendment process for the regional connection schemes for renewable energy sources, establishing new rules for the sharing of connection costs, and simplifying the public consultation procedures for works on the public electricity distribution grid.



The need to adapt technological specifications in the time between permit application and project construction

The problems of technological advances in the face of slow administrative procedures

Although the procedures for granting permits have been simplified, and appeals reduced, it regularly happens that certain network projects that have been approved are no longer up to standard. In fact, the granting of a permit can sometimes take so long that the approval relating to the specific technological features of the project has become obsolete. To compensate for this, some states have adopted models that allow developers to define a series of technological parameters in their permit applications, enabling them to maximize energy production if they were to modernize their projects. This mainly concerns wind farm projects, which are increasingly in demand in Europe. As a result, their energy production capacity is doubling between the final investment decision and the granting of permits.

This is the case in Sweden, where wind farm project approvals include the option of modifying the technical specifications of the turbines themselves. The revision of the RED II directive in 2023 has also made it possible for constant updates to be made

to the permit, depending on the length of the procedure and, if justified by the importance of the project, to compensate for the slowness of the administrative procedures in the face of technological advances.

The Public policy on specific energy projects

Adaptation needed at local level

For renewable energies produced on a small scale by households or energy communities, regulatory barriers to the market aggravate their production. For example, countries such as Portugal and Ireland have introduced exemptions for renewable energy communities from due diligence depending on their use of the local public grid. Projects are generally subject to environmental impact assessments measured within the local perimeter. However, the environmental impact assessment deadlines are sometimes extended, thereby delaying the launch of the project. To avoid such delays, member states such as France and Italy have shortened these environmental impact assessment periods to one to two months.





The Administrative procedure simplification

The widespread use of one-stop shop

To speed up the energy transition within the European Union, the RED II directive allows the use of the "one-stop shop" concept. This involves the designation by a member state of an entity as the reference person for the authorization procedures of renewable energy infrastructure projects.

This concept enables developers to facilitate the administrative procedures for granting permits, as everything is centralized. As a result, processing times are reduced, and developers can more easily monitor the progress of their applications via a dashboard. The member countries have set up several types of one-stop shop, depending on the project. In particular, there is the one-stop shop for projects of common interest (infrastructure) used by Denmark and Sweden, which brings together all the information needed to build renewable energy installations. There is also the digital one-stop shop, where the procedure is carried out online, as is the case in the Netherlands.

Some countries have noticed the benefits of this concept and have adopted it, notably the United States. Indeed, the Biden administration has developed an automated authorization tool for rooftop solar facilities, which automates certain approvals, making processing more efficient.

The planning of priority objects

The European Commission stated in its report that, with regard to network development projects, member states should ensure that projects enjoy the status of the greatest possible national importance, with all the advantages that this entails. These projects must therefore be given priority in any administrative or legal proceedings. Spain has therefore created a "fast-track unit" for projects considered strategic

Tacit administrative authorizations as another legal tool

It sometimes happens that, despite efforts to simplify the procedures for granting permits or the use of external resources, these can be delayed when the responsible authorities do not give their response within the specified time. Administrative silence has therefore been introduced, which means that in the absence of a response from an authority that does not have a determining role, its approval can be bypassed. The Netherlands uses this system, in particular, in the case of cross-border projects, where only the opinion of the national authority (and not its formal approval) is taken into account to speed up the procedure.

Another example from the USA, on May 13, 2024, the Federal Energy Regulatory Commission approved the issue of permits for electricity transmission lines where the state regulatory authorities had not acted on an application to build the line for more than a year or had rejected the application.

The need to accelerate investment in Renewable Energy grids

An essential aspect of acceleration towards energy transition is investment in the development of renewable energy grids. The aim of these grids is to distribute electricity across the whole of the border and cross-border areas, particularly in zones where there are no wind or photovoltaic production sites. In France, electricity distribution companies such as Enedis have connected 90% of green energy production facilities (solar, wind) to meet 2050 targets, and are even experimenting with storage solutions to make this energy as available as possible. Enedis is now connecting more than one million of points every year, doubling year on year. However, while connection delays have been cut, but renewable producers or people asking for a new connection still consider the delay to be too long.

China is also planning to reform its electricity market to facilitate the transition. This reform involves the development of inter-regional electricity transfer grids projects in former fossil fuels producing areas. Wind and solar energy are being given priority in the distribution of electricity.



The use of New Technologies

The digitization of administrative procedures

The European Commission has pointed out that speeding up the licensing process will inevitably require a digital transformation. In fact, the revised RED directive stipulated that the necessary documents should be transmitted via a digital gateway by November 21, 2025. The use of digital communication platforms makes it possible to unify the various application processes and help the staff of the authorities responsible for issuing permits to process applications; it also forms the basis for monitoring and improving procedures. Digital transmission would make the progress of applications more transparent. The Netherlands, for example, has set up the "All in One Permit for Physical Aspects" platform for wind and photovoltaic projects. With the development of artificial intelligence, these platforms could become totally autonomous and manage the approval process without any external intervention from the government.

On the other hand, the United States has set up the Solar APP+ platform for rooftop solar installations. This platform digitizes the entire procedure and is free of charge for local authorities responsible for issuing permits. It automatically examines permit applications, instantly approving eligible systems.

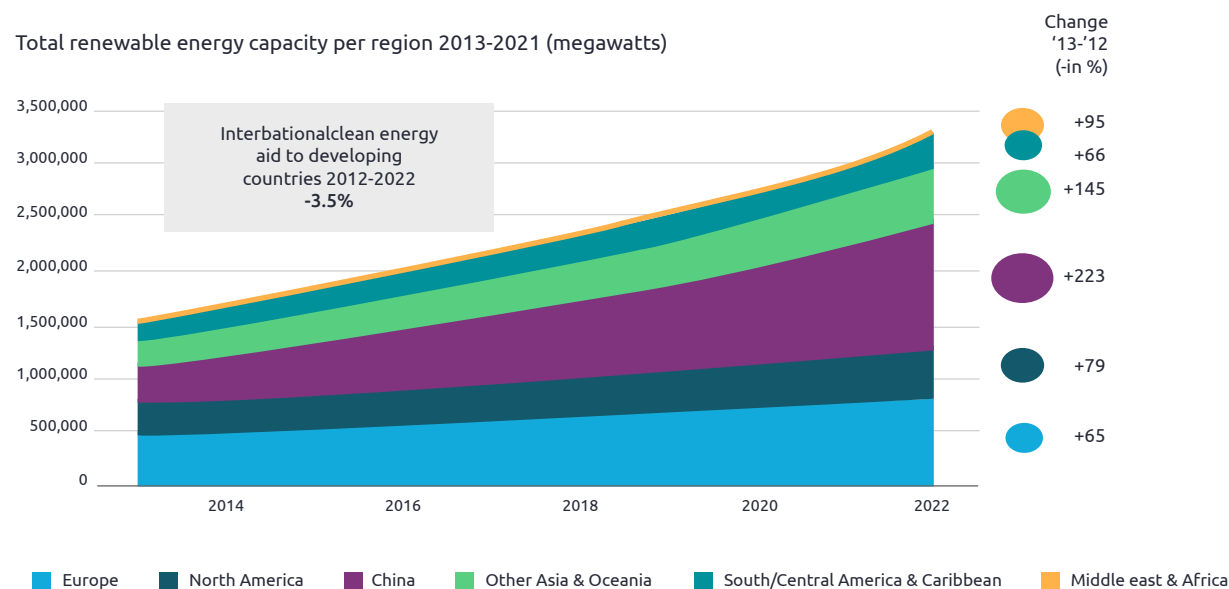
To conclude on progress towards the energy transition

The energy transition has been underway since 2017. In fact, the increase in the world's consumption of renewable energy means an increase in their production. This increase in production is forcing a revolution in the use of administrative procedures

for project approvals. Since production has to meet demand, reducing the complexity of procedures and creating specific status for certain projects is effective, but not enough in the long term. From now on, it will be the technological resources and the investments made within them that will enable production needs to be met in the long term.

FIGURE 2

Where Renewable Energy Is Growing (And Where It Is Stalling)



Source: <https://fr.statista.com/infographie/14530/la-transition-energetique-en-marche/>



Our Convictions

- As shown by the guidelines provided by the European Commission, the countries of the European Union are good examples of what could be done to speed up approval procedures, including cross-border projects (i.e., tacit permits process, planning priority projects, such as the special status of national importance granted to some renewable energy projects).
- Outside the EU, other countries, such as the USA, are competing with them in terms of energy transition (e.g., the widespread use of one stop shop).
- The political effort to reduce the permitting delay is significant. However, if the approval procedures in some countries take several years, the implementation of some measures and good practices should help to reduce the permitting delay to one year.
- The digitization of procedures could be the first step to guaranteeing long-term development, as it provides transparency and centralizes the monitoring of permit applications.

About Capgemini

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