

Overall  
Score  
**20**



2022  
Score  
**19**

## Summary

France remains one of the top performing countries when it comes to the development of Rooftop solar policy and practices, but deliverables still need to be achieved. France's photovoltaic (PV) policies are developed within the National Low Carbon Strategy and the Energy Programme Decree. The current Energy Programme Decree aims for 20 GW of PV capacity by 2023, rising to 35-44 GW by 2028. Its revised NECP draft includes an increased target for solar PV capacity of up to 60 GW by 2030, adding 20GW more than the NECPs in force. Incentives include differentiated tariffs and bonuses for specific products, but there's instability due to tariff revisions every 3 months. Solar is mandatory for living roofs of commercial and industrial buildings and covered car parks occupying 500 m<sup>2</sup> or more of ground surface. Simplified permitting procedures have been introduced for smaller PV projects, yet, with regard to energy storage, French law and regulations are still inadequate.

Energy sharing and collective self-consumption are encouraged, with flexible regulations supporting prosumers. Energy communities are being promoted, with legislation simplification and encouragement for the growth of citizen energy initiatives. Overall there has been significant growth in PV capacity within France, with around 2,229 MW added to the grid between January-September 2023, reaching a cumulative capacity of 19.0 GW of installed PV capacity. However, there are issues to the lack of construction capacity and training and employment in the sector. In terms of smart meter installations, the rate exceeded 80% in 2023.

## Scoring System

This country profile highlights the good and the bad policies and practices of solar rooftop PV development within France. It examines and scores six key areas: governance, incentives & support schemes, permitting procedures, energy sharing schemes, energy communities and additional measures to support solar PV development. For this update, we will have the 2022 score to the right as a benchmark:

The scoring system is set out below:



Green = 4-5 points



Orange = 2-3 points



Red = 0-1 points





## Country Profile France



## The Good



**Increased solar target:** France has increased the target for PV capacity to up to 60 GW by 2030 in its revised NECP draft, which is 20GW more than the NECPs in force.



**Incentives and Support:** The government has introduced incentives such as differentiated tariffs, bonuses for specific products, and simplified permitting procedures to encourage PV adoption.



**Mandatory solar:** Solar PV is mandatory for living roofs for commercial and industrial buildings or covered car parks occupying 500 m<sup>2</sup> or more of ground surface.



**Power to the people:** France's current policy framework is supportive of collective self-consumption and energy communities, with flexible regulations supporting prosumers. There is now an approved roadmap which sets an objective of 1,000 citizen initiatives by 2028.



**Growth and Progress:** France has seen significant growth in PV capacity, with around 2,229 MW added in the January-September period of 2023, reaching a cumulative capacity of 19.0 GW overall. This indicates positive momentum towards renewable energy goals.



## Country Profile France



## The Bad



**No designated renewables target:** The revised NECP draft does not include a percentage range for renewable energies. Instead, There is a “decarbonised energy” target corresponding to a 58% share of its final energy consumption, thus conflating renewables and nuclear in the same calculation.



**Tariff Instability:** The practice of revising feed-in tariffs and net-billing tariffs for PV installations under 500Kw every 3 months can create instability for PV projects, making it difficult for investors to predict their payback periods.



**Lack of storage:** Despite the significant technical improvements in electricity storage methods, the lack of a specific legal storage regime is preventing this sector from growing – and it may ultimately hinder the momentum of solar and renewable energies.



**No oversight for energy communities:** Despite encouragement for the growth of energy communities from the French government, no authority has been designated to oversee their implementation.



**Skills and Capacity Shortage:** There's a lack of construction companies capable of supporting the growth of the PV sector. Training and employment in the sector need to be addressed to meet the demand for Solar PV uptake.



**2024 : Governance 3**

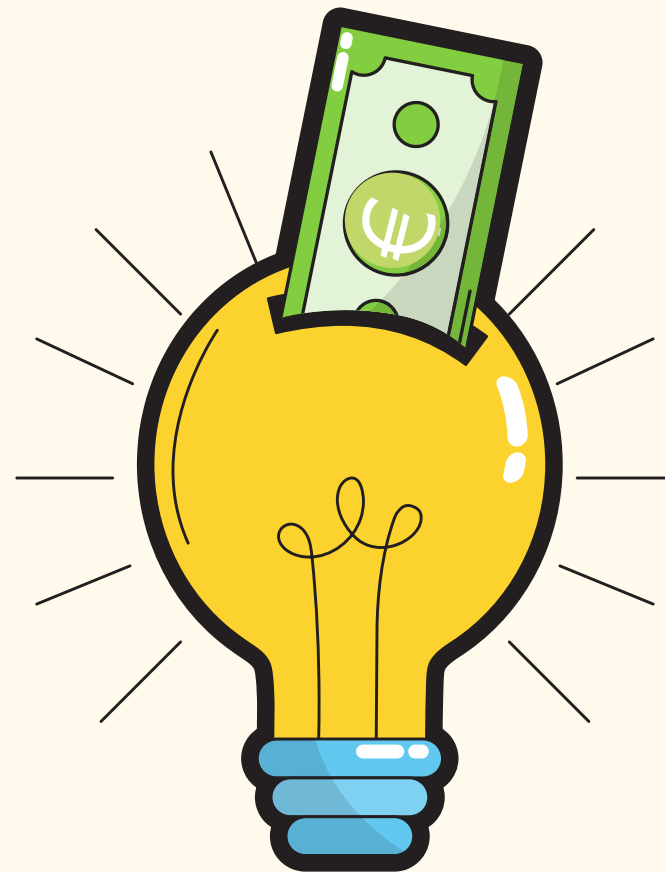
**2022 Score : 3**

The framework for developing photovoltaic policies in France falls within the long term National Low Carbon Strategy (SNBC, 2050 horizon) and the 10-year Energy Programme Decree (PPE). France's NECP in force incorporates self-consumption and energy communities as measures, setting a target of 200,000 PV sites for self-consumption in 2023, 50,000 of which are collective. The current PPE, published in 2020, targets 3 GW to 5 GW per year of new capacity, to reach 20 GW by 2023 and 35 GW to 44 GW by 2028. The government published an Action Plan in November 2021 to accelerate the development of photovoltaics. This plan includes feed-in tariffs for ground based systems under 500 kW on wasteland, a reduction in upfront grid connection costs and simplifications to administrative procedures<sup>1</sup>. France has submitted its revised NECP draft with an increased target for solar PV capacity of up to 60 GW by 2030, adding 20GW more than the NECPs in force, submitted in 2019, which targeted 40 GW of installed solar capacity by 2030<sup>2</sup>. On a negative note, the revised NECP draft does not include a percentage range for renewable energies. Instead, France defined a “decarbonised energy” target corresponding to a 58% share of its final energy consumption, thus conflating renewables and nuclear in the same calculation.<sup>3</sup>

1. National Survey Report of PV Power Applications in France 2022

2. <https://www.pv-tech.org/france-targets-up-to-60gw-of-solar-pv-by-2030-in-updated-necp/>

3. <https://www.euractiv.com/section/energy-environment/news/paris-forgets-renewable-targets-in-its-2030-energy-climate-plan/>



2024 : Incentives 3

2022 Score : 4

The new framework includes differentiated tariffs depending on system size and lump sums for smaller self-consumption systems as well as bonuses for specific building integrated products<sup>4</sup>. Feed-in tariffs and net-billing tariffs for PV installations below 500 kW on buildings is subject to revisions every 3 months depending on the number of completed grid connections, which is perceived as a destabilising factor according to promoters, since they cannot have a clear idea of their payback period<sup>5</sup>. However, tariff reductions were frozen over late 2022/early 2023 and new inflation indexing was introduced.

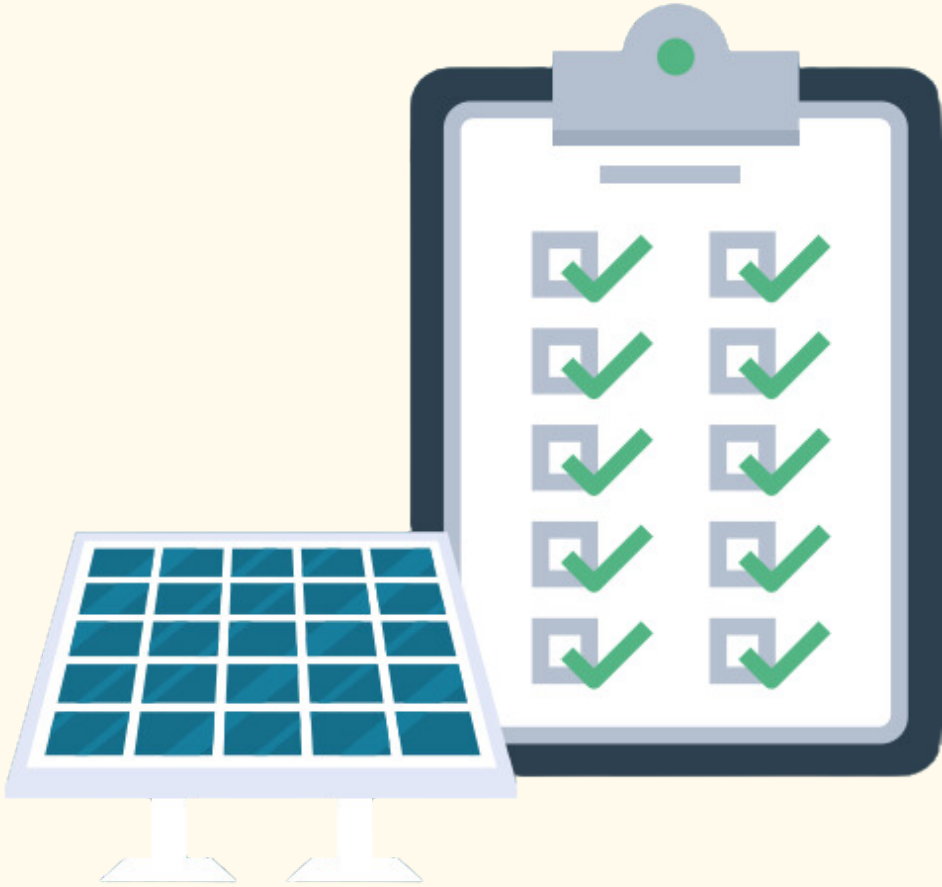
There are mandatory solar for living roofs for commercial and industrial buildings or covered car parks occupying 500 m<sup>2</sup> or more of ground surface. However, there are no subsidies for the development of small-scale storage in France.

4. [https://iea-pvps.org/wp-content/uploads/2022/03/IEA-PVPS\\_Annual\\_Report\\_2021.pdf](https://iea-pvps.org/wp-content/uploads/2022/03/IEA-PVPS_Annual_Report_2021.pdf)

5. [https://www.eclareon.com/sites/default/files/res\\_policy\\_monitoring\\_database\\_final\\_report\\_01.pdf](https://www.eclareon.com/sites/default/files/res_policy_monitoring_database_final_report_01.pdf)

2024 : Permitting 3

2022 Score : 2



The French government has adopted new regulations to simplify the procedure for the environmental approval of PV projects with a capacity of up to 1 MW, withdrawing the environmental assessment requirement for PV installations deployed on rooftops or parking areas.<sup>6</sup> From now on, all PV systems of up to 300 kW will be exempted from a preliminary environmental assessment and installations ranging from 300 kW to 1 MW will be subject to environmental assessment on a case-by-case basis criterion.<sup>7</sup> With regard to storage, French law and regulations are still inadequate. Currently the entity storing electricity is seen by the regulator as an electricity consumer when it stores electricity, and as an electricity producer when it releases the electricity previously stored. This technicality can lead to long and burdensome administrative procedures. Despite the significant technical improvements in electricity storage methods, the lack of a specific legal storage regime is preventing this sector from growing – and it may ultimately hinder the momentum of solar and renewable energies.<sup>8</sup>

6. <https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000046003695>

7. <https://www.pv-magazine.com/2022/07/05/france-simplifies-environmental-permitting-for-solar-up-to-1-mw/>

8. <https://www.dlapiper.com/en-au/insights/publications/2023/05/solar-energy-where-does-france-stand-and-what-are-the-consequences-for-the-real-estate-sector>

2024 : Energy Sharing 4

2022 Score : 4

Solar PV systems in France have the option to participate in collective self-consumption (CEC) projects and the use of the public grid for energy sharing is allowed. Furthermore, France has an absolute limit for CSC at 3MW and uses a spatial limitation of 2 km for its CSC scheme, with exceptions up to 20 km in rural areas with low population density and under specific circumstances, which is a quiet permissive proximity requirement. In general, the regulations for collective self consumption and energy sharing are flexible and supportive to prosumers. As a good practice, a dedicated legal body called PMO (“personne morale organisatrice”) is required to manage a CSC entity, which proposes and validates sharing coefficients and financial terms with electricity generators and off-takers and provides representation for the accounting entities. PMO is the communicative channel between the participants and the DSO.

The French model is also a reference for the implementation of dynamic sharing, which are implemented by default by the DSO on the basis of the consumption of each member at each half-hour, with the support of a software platform that tracks the amounts “sold” and provides a framework for financial transactions.<sup>9</sup> French grid operator Enedis has identified 259 collective self consumption operations in France, as of the end of September 2023. The operations bring together 3,350 consumers and more than 480 producers, generating 17 MW total power capacity, mainly from solar.<sup>10</sup>

9. <https://www.solarpowereurope.org/advocacy/position-papers/framework-for-collective-self-consumption>

10. <https://data.enedis.fr/>



2024 : Energy Community 3

2022 Score : 2



In December 2021, it was approved the Law that transposes the RED II Directive, which simplifies the current legislation and encourages the establishment of Energy Communities and collective self-consumption setting<sup>11</sup>. France has adopted two different concepts for REC and CEC, with eligibility being the most differentiated aspect between them. This means that there are no restrictions for entities to participate in CECs, while strong restrictions are imposed on companies to participate in RECs. In general, the EU criteria and principles of open and voluntary participation, autonomy, and effective control are well reflected in national legislation. However, it lacks provisions on how REC and CEC should relate to each other. An application decree recently approved in December 2023 elaborates which legal entities are allowed to become energy communities, including joint-stock companies, and cooperative societies. On the other hand, French legislation has not designated any authority to oversee the implementation of REC and CECs<sup>12</sup>. There is a Roadmap approved which sets an objective of 1,000 citizen initiatives by 2028 and communicates 10 different measures to make this a reality, but these measures still need to be delivered<sup>13</sup>.

11. <https://www.rescoop.eu/policy/france-rec-cec-definitions>

12. <https://www.rescoop.eu/policy/france-rec-cec-definitions>

13. [https://www.ecologie.gouv.fr/sites/default/files/21191\\_10MesuresEnergiesRenouvelablesCitoyenne\\_def\\_light.pdf](https://www.ecologie.gouv.fr/sites/default/files/21191_10MesuresEnergiesRenouvelablesCitoyenne_def_light.pdf)

## 2024 : Additional measures 4

2022 Score : 3

France's Ministry of Ecological Transition has reported that around 2,229 MW of new PV systems were connected to the French grid in the January-September period of 2023. In the same period a year earlier, the country added 1,923 MW of new PV capacity. In the third quarter of this year, 803 MW of new PV systems were deployed in the country, which compares to 699 MW in the same period a year earlier. France reached 19.0 GW of cumulative installed PV capacity at the end of September 2023. Nearly one in ten individual houses has one or more sections of roof equipped with photovoltaic panels, which demonstrate the inhabitants' commitment to the energy transition. The roofs of larger buildings are also increasingly being equipped with solar PV. However, there seems to be a lack of construction companies capable of supporting the growth of the sector. The issue of training and employment are therefore becoming key aspects to adjust the production and demand sites. In France, in 2023, the smart meter penetration rate has exceeded 80%.

14. <https://www.pv-magazine.com/2023/11/27/france-adds-2-2-gw-of-solar-in-first-9-months-of-2023/>

15. <https://www.smart-energy.com/industry-sectors/smart-meters/smart-metering-progresses-in-europe-but-11-countries-have-barely-started/#:~:text=Thirteen%20of%20the%2027%20EU,reached%20the%2080%25%20penetration%20rate.>

## Engaging citizens and local communities in the solar revolution

The Rooftop Solar PV Comparison Report update produced by CAN Europe and its member organisations aims to detect barriers at national level that impede a higher uptake of residential rooftop solar PV, highlight best and bad practices, and to put forward concrete policy recommendations for setting up the right regulatory framework to ensure an accelerated uptake of rooftop solar PV.

11 countries were chosen to be assessed and scored on their performance regarding the development of rooftop solar PV within their country.

For the full report, follow the link below:

<http://caneurope.org/rooftop-solar-pv-comparison-report>

