Greece's Solar Rooftop Country Profile

April 2024

Overall Score 18

2022 Score 13

Summary

November 2023, Greece submitted its NECP with more ambitious and updated targets for renewables and solar: 23.5 GW for all forms of renewables, from which 13.4 GW came from solar power capacity. However, there is no roadmap or strategy at this time in regards to rooftop solar PV in particular. Incentives for renewable energy projects include feed-in tariffs, feed-in premiums, and financial support for self-consumption projects such as net metering and virtual net metering. Various financial support programs are available, including schemes for rooftop solar panels and solar PV installations with storage, funded by the Recovery and Resilience Fund.

Permitting procedures for solar development have been hindered by grid availability issues, with many areas facing rejections due to lack of electricity grid capacity. Although, efforts are underway to increase grid capacity. Energy sharing is facilitated through energy communities and Greece is a frontrunner in establishing energy communities, with over 1,600 communities active since August 2023. Recent legislation introduced new types of energy communities, prioritising self-consumption projects and limiting profit distribution to prevent exploitation.

There has been significant progress made in installed PV Capacity. However, there is a need for additional awareness campaigns and the development of information hubs so that citizens can strengthen their knowledge and become more active in the energy transition.

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Scoring System

This country profile highlights the good and the bad policies and practices of solar rooftop PV development within Greece. 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**

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Country Profile
Greece

The Good

Raising Ambition: In its revised NECP draft, Greece has set more ambitious and updated targets for renewables and solar: 23.5 GW for all forms of renewables, from which 13.4 GW come from solar power capacity.

Incentives for Renewable Energy: Various incentives such as feed-in tariffs and financial support programs are in place to incentivise the uptake of rooftop solar PV and the installation of battery storage systems.

Active Energy Communities: Greece is a frontrunner, when it comes to the community energy movement, with an establishment of over 1,600 active energy communities since August 2023.

Efforts to Address Grid Issues: Efforts to address grid availability issues through legislative changes and grid capacity expansion initiatives show proactive steps towards overcoming energy infrastructure barriers.

Growing Citizen Interest: The surge in citizen interest and requests for renewable energy projects indicates growing awareness and support for solar and renewable technology.

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The Bad

Grid Capacity Limitations: Grid availability issues are the main issue that hinders solar development, leading to rejections of applications and slowing down the transition to renewable energy.

Delays in Smart Meter Rollout: Legal disputes and administrative delays have hampered the rollout of smart meters, delaying the modernization of the energy infrastructure and hindering efforts towards energy efficiency.

Underutilization of Energy Sharing measures: Despite the introduction of legislation for energy sharing measures to be implemented within apartments and common use areas, these measures have not been put into practice yet.

Low smart meter penetration: Due to legal proceedings on a specific case with a Distribution System Operator (HEDNO), the installation of smart meters in Greece stalled and is only at a penetration rate of 6%. Although, this will be resolved with financial support from the European Investment Bank.

Greece's Solar Rooftop Country Profile

2024 : Governance 3

2022 Score : 2

The current NECP set targets concerning the share of RES in gross final energy consumption (35%) and in gross final electricity consumption (61%). It also foresees the deployment of 19 GW of renewables by 2030 and 7.7 GW (Gigawatt) for solar.[1] Following the REPowerEU Plan, in November 2023, the revised NECP draft was submitted to the European Commission, with more ambitious and updated targets for renewables and solar: 23.5 GW for all forms of renewables, from which 13.4 GW come from solar power capacity.[2] Currently, there is no roadmap or strategy at this time in regards to rooftop solar PV in particular. Policies should be strengthened by setting specific quantitative targets for both individual as well as collective self-consumption (CEC) by 2030 and beyond. The draft NECP does not contain such targets. The recent law (5037/2023) introduces significant amendments regarding various energy related practices especially regarding renewables-based self-consumption and energy communities, among which is the allocation of 2 GW of grid space exclusively for self-consumption projects. Stakeholders' views have been taken into account in developing the new law via public consultation.

1.https://energy.ec.europa.eu/system/files/2020-03/el_final_necp_main_en_0.pdf
2.https://commission.europa.eu/publications/greece-draft-updated-necp-2021-2030_en

Greece's Solar Rooftop Country Profile

2024 : Incentives 3

2022 Score : 3

Energy can be paid as a feed-in tariff or feed-in premium for commercial projects either from enterprises or energy communities, but it gives priority to individual or collective self-consumption projects through reserving 2 GW of grid space and dedicating financial resources to cover part of their installation costs. Self-consumers can also implement projects through net metering or virtual net metering for energy communities. In this case the energy produced from a PV can be used to offset the consumption for a netting period of 3 years, with a maximum capacity of 10 kW (kilowatt) for households and 100 kW for businesses, while in virtual net metering[4.] there is no capacity limit.

An additional scheme introduced recently under the same law (n. 5037/2023)[4.] is net billing, which provides for simultaneous consumption in real time with production, while self-consumers are compensated for the surplus energy with a feed-in tariff. Virtual net billing can be implemented by households, enterprises and energy communities without any capacity limit.[5.]

In terms of financial support, a program for rooftop solar panels[6.] complemented with battery storage systems recently started in May 2023. It is funded by the Recovery and Resilience Fund and aims at supporting households and farmers to cover their own electricity needs through net metering. The total budget is €238 million. Besides net metering, the following incentives programmes can be highlighted:

- FiT scheme for small solar rooftop PVs: a new program for small solar rooftop PVs (up to 6kWp) which was established in 2022 with a guaranteed price (of 0.087Euros/kWh), for a 20 year contract. However, in general terms citizens have opted clearly to make more use of net metering and virtual net schemes instead of this program.
- Solar PV with storage for municipalities in transition regions: €41,795 million for regions undergoing transition (target capacity of 91 MW), of which €26,845 million are reserved for energy communities in lignite regions under the Just Development Transition Program 2021 – 2027.[7.]
- €100 million will be disbursed from the Recovery and Resilience Fund to municipalities for the establishment of energy communities to meet the electricity needs of vulnerable households.
- A plan to support mountainous communities by installing a total of 142.6 MW PV panels to meet their needs via virtual net metering with a €100 million budget has been announced.

4. https://www.et.gr/api/DownloadFeksApi/?fek_pdf=20230100079
5. https://bernitsaslaw.com/2023/04/07/energy-briefing-special-edition#:~:text=Law%205037%2F2023%20(the%20New,previous%20general%20limit%20of%203MW.
6. Government Gazette 2903/B/02.05.2023
7. EYDAM, 27.09.2023, https://shorturl.at/jxFX8

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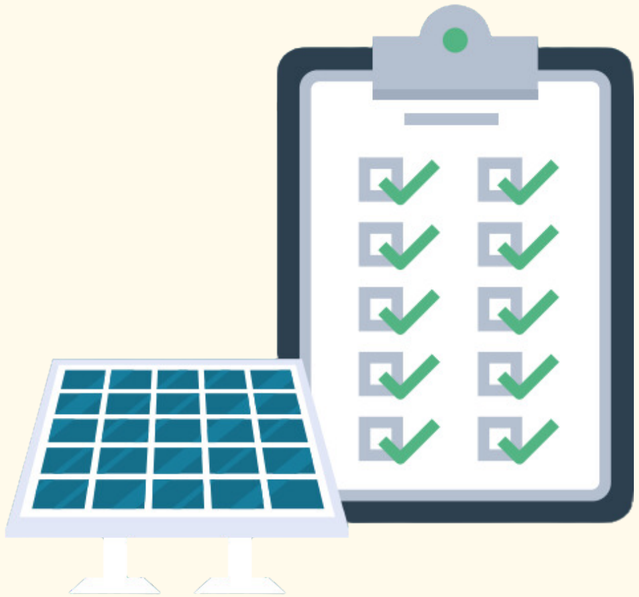

2024 : Permitting 2

2022 Score : 1

Currently, probably the main reason that impedes solar development and that makes administrative procedures long and burdensome in Greece, including rooftop solar, is grid availability. In many areas, applications for solar rooftop PV are being rejected due to lack of electricity grid capacity.[6] To understand the scale of the issue, up until December 2023, 48% of the requested energy communities' renewables projects have received a notification of inability to connect from the Hellenic Electricity Distribution Network Operator (HEDNO).[8] Additionally, the responsible authorities have been criticised for implementing non-transparent decision-making processes.[9] To address this problem, in summer 2022 after a legislative change by the Ministry of Environment and Energy,[10] HEDNO amended the Management Code of the Greek Electricity Distribution Network, in order to increase the capacity of the existing substations by a total of 2.5 GW. The goal was the allocation of 10 MW to each substation for new net-metering and virtual net-metering systems, as well as for rooftop PVs. 40% was intended for residential systems, 30% for self-consumption by farmers and the remaining 30% for SMEs (up to 10 kW).

8.The Green Tank, 29.02.2024 Energy communities and self-production in Greece and its lignite areas, Review #5 https://shorturl.at/wyHS3
9. https://www.eclareon.com/sites/default/files/res_policy_monitoring_database_final_report_01.pdf
10. https://www.et.gr/api/DownloadFeksApi/?fek_pdf=20220100129

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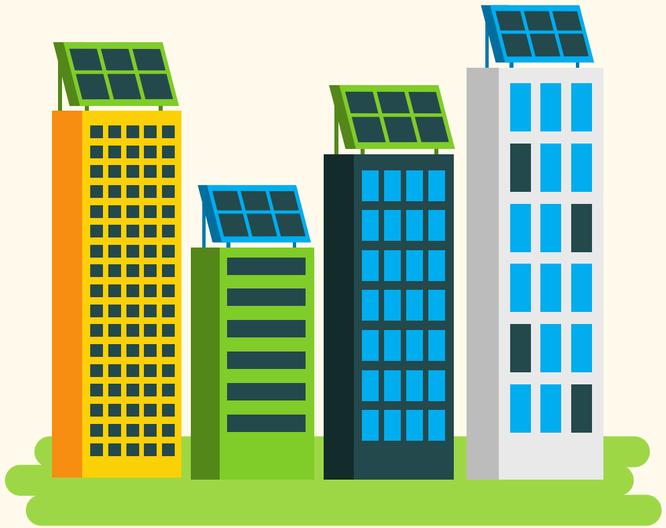

2024 : Energy Sharing 3

2022 Score : 3

Energy sharing is implemented using the energy community framework via either the virtual net metering or virtual net billing mechanisms by local authorities, farmers or energy communities formed by citizens or businesses aiming at covering their own electricity needs. Since 2023, virtual net-metering is available to high-voltage consumers and regardless of the location where the renewable system is installed, in contrast with the previous framework under which self-consumers were eligible to connect only to low or medium voltage networks. In addition, under the recently voted law (5037/2023), apartments and common areas in the same building are able to share the same solar panels without having to form an energy community. Although these are positive developments on paper, these measures have not been utilized in practice since March 2023 when the new legal framework was adopted. Thus, the effectiveness of this new law remains to be seen.

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2024 : Energy Communities 4

2022 Score : 3

Greece is a frontrunner in establishing a new type of civil cooperative, the "energy community" (Law 4513/2018), including most of the criteria in the EU directives (effective control, open and voluntary participation, local proximity, etc.).[11]Until December 2023, 1,689 energy communities had been established and were active with 1,624 projects corresponding to a total electrified capacity of 1,178 MW. Under the new law (Law 5037/2023) adopted in 2023, two new types of energy communities were introduced, Renewable Energy Communities (RECs) and Citizen Energy Communities in accordance with the corresponding definitions of the EU directives.

Communities that were previously established in compliance with (law 4513/2018) may be transformed in line with these new types of communities. They should have at least 30 members (made up of either individuals, small to medium enterprises, agricultural partners, local government or non-governmental organisations) or at least 15 members if all the members are small to medium enterprises. For private legal entities, electricity production should not be the main commercial activity. The law provides various benefits for energy communities, including priority in the permitting procedure and the ability to engage in virtual net metering schemes. The new legislation prioritised self-consumption projects (2 GW of electrical space) which include, but are not limited to energy communities.

The law has also established a 20% limit on the profits that can be distributed to the members of the energy communities if they take advantage of priority access to the grid or are eligible for financial support. These measures seek to limit the hijacking of the "energy community" institution which was documented in past years. Specifically power companies and investors collaborated with citizens to form energy communities which exploited the financial incentives set for energy communities (high FiT). Thus, obtaining windfall profits at the expense of citizen energy communities seeking to cover their own electricity needs, while also bypassing steps in environmental permitting, and avoiding the competition with their peers participating in competitive bidding processes.[12] On the other hand, Greece has established a concrete approach to incorporate vulnerable households, offering vulnerable consumers or citizens living under the poverty limit who live in the same district, a right to be involved in virtual net metering schemes.[13].

11. https://www.rescoop.eu/policy/greece-rec-cec-definitions
12. https://www.rescoop.eu/policy/greece-rec-cec-definitions
13. https://www.rescoop.eu/policy/greece-rec-cec-definitions

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2024 : Additional measures 3

2022 Score : 1

In terms of the current status, there are currently 375 MW of small-scale rooftop PV panels (<10 kW), accounting for 5.8% of the total installed PV capacity of 6.3 GW. There has been an impressive progress in installed self-consumption capacity during the last 4 years, which increased by 10 times between 2019 (33.8 MW) and August 2023 (337.7 MW). Moreover, the interest from citizens for such projects is sky-high. During the last year (2022-2023) requests for self-consumption through net metering and virtual net metering have increased by 65% (from 15,169 to 35,162 requests).[14.]

However, there is a need for additional awareness campaigns and the development of information hubs so that citizens can strengthen their knowledge on self-consumption and energy communities and become more active in the energy transition. With regards to smart meters roll out, HEDNO carried out a large tender in 2021 to buy 7.5 million smart meters and install them by 2030. However, one of the participants, Swiss company Landis+Gyr, took HEDNO to court for excluding it from the process over missing documentation. It resulted in a two-year delay. Due to this delay, currently there is a penetration rate of smart meters of only 6%.[15.] The full nationwide rollout of approximately 7.5 million smart meters is expected to be completed by 2030 with a deployment rate of approximately 1 million meters per year. HEDNO is receiving support from the European Investment Bank for its 3.12 million smart meters that are planned to be installed by 2026.[16.]

14. The Green Tank, 30.10.2023 Energy communities in Greece's lignite areas, Review #4 https://shorturl.at/gjGW6
15. https://balkangreenenergynews.com/central-eastern-europe-severely-lagging-in-smart-meters-rollout/
16. https://www.smart-energy.com/industry-sectors/smart-meters/greeces-hedno-to-deploy-3-1-million-smart-meters/

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