Lithuania’s renewable energy targets, particularly in solar PV, have exceeded expectations with 1.2 GW of total solar capacity already installed, surpassing the 2025 goal. The government has set more ambitious targets of 2 GW by 2030, with revised NECP drafts aiming for a 500% increase to 5.1 GW. The nation aims for energy independence, targeting 100% electricity generation from renewables by 2030 and complete reliance on clean sources by 2050. Despite successes, challenges persist, such as resistance to solar mandates in building codes.

Incentives to boost PV installations include subsidies for prosumers and investments in renewable energy communities, backed by EU funds. Legislative reforms aim to streamline processes and encourage growth in prosumer installations. Energy sharing initiatives, including virtual net billing, have gained traction. Lithuania’s energy community framework is evolving, with a focus on facilitating participation and oversight. Additional measures are needed to raise awareness and enhance infrastructure, such as the delayed smart meter rollout. As of February 2024, Lithuania boasts over 61,000 prosumers and 800 MW of solar capacity. Moreover, from the 3rd of March 2024 from 12:00 to 14:00, Lithuanian renewable consumption for the first time reached 100%, through the means of national wind and solar production.
This country profile highlights the good and the bad policies and practices of solar rooftop PV development within Lithuania. 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
100% renewable energy aim: Lithuania aims for 100% electricity generation from renewables by 2030 and complete reliance on sustainable sources by 2050, with solar playing an important role in this as capacity will increase by 500% (5.1 GW) by 2030.

Stakeholder Involvement: Civil society organizations have expressed satisfaction with stakeholder involvement in drafting energy plans, indicating transparency and collaboration in the decision-making process.

Legislative Reforms: The "breakthrough package" aims to reduce bureaucratic obstacles, creating a favourable environment for accelerated prosumer growth.

Combatting energy poverty: Lithuania’s revised NECP draft proposes an interesting scheme to support renewable energy communities and to fight energy poverty at city level, there will also be financing for multi-apartment buildings to install solar plants on roofs for common use.

The rise of the prosumer: As of February 2024, there were more than 61,000 prosumers in Lithuania. Together they have already installed more than 800MW solar electricity generation capacity.
Resistance to Mandates: Despite regulations for solar PV installation on renovated apartment houses, resistance from the Ministry of Environment to introduce solar mandates in building codes could hinder widespread adoption.

Decreasing Subsidies: Subsidies for solar PVs are dwindling as costs decrease, potentially slowing down the uptake of solar energy.

Bureaucratic Processes: Administrative processes for grid approval and registration fees for larger installations may deter investment in commercial solar plants.

Limited Framework for Energy Sharing: While some forms of energy sharing exist, there's no comprehensive legal framework beyond energy communities, potentially limiting the scalability of such initiatives.

Challenges in Energy Community Status: Despite favourable legislation, obtaining energy community status from regulators remains burdensome, hindering participation in energy production.
Lithuania established a goal of solar PV of 0.8 GWp (Gigawatt) in the NECPs in force, but in the meantime the government has set more ambitious goals for total Solar PV: 1 GWp by 2025 and 2 GWp by 2030. The 2025 target has already been surpassed with 1.2 GW total solar capacity already. On a positive note, from the 3rd of March 2024 from 12:00 to 14:00, Lithuanian renewable consumption for the first time reached 100%, through the means of national wind and solar production.\(^1\)

Lithuania has also set clear subtargets. The national energy independence strategy aims to achieve 30 % of prosumers in 2030 and 50 % in 2050 of all consumers. Lithuania aims to generate 100 % of its electricity needs by 2030, with up to 90 per cent of it being produced by local renewable sources. By 2050 all electricity and heat consumed in Lithuania will be produced from renewable and other clean sources.\(^2\) In the recently revised NECP draft submitted to the European Commission, Lithuania has increased its goal to increase solar capacity by 500% in 2030, reaching 5.1 GW. This is a significant rise compared to the current NECPs, making Lithuania the country with the largest increase in solar targets relative to the existing NECPs. Additionally, it’s noteworthy that the participation and involvement of stakeholders in preparing the draft NECPs has been deemed satisfactory by the civil society organisations.\(^3\)

Lithuania approved in 2022 the breakthrough package, a package of legislative amendments with a focus on acceleration and stimulation of the development and expansion of green energy through major reforms in Lithuania’s electricity sector. One negative development is that the Ministry of Environment refuses to introduce the solar mandate (as of February 2024) for all new buildings into the building code, even though there are regulations that foresee the installation of solar PV on renovated apartment houses (with area above 1500 m\(^2\)) for common use from July 2022.

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In Lithuania, all prosumers are connected to the distribution network of AB Energijos skirstymo operatorius. The prices of services and the percentage for the use of electricity grids shall be fixed once a year. Taxes and fees are not high (~1-5 % depending on the size of solar PV). The revised NECP draft provides a support scheme for prosumers with a total budget from EU funds of €160 million between 2023 and 2029 up to 10kW. Regular calls for solar PV subsidies are made each year. In Spring 2022, for instance, €39.5 million out of €48 million were allocated to Solar PVs on their rooftops. Up to 10 kW, each participant could obtain about 320 Eur/kW, so it is a very strong incentive for the uptake of solar PV.

But support is dwindling since PV costs are decreasing. Additionally, support is envisaged for investments by legal persons, farmers, and renewable energy communities in onshore solar and wind power plants. The revised NECP draft also proposes an interesting scheme to support RES communities and to fight energy poverty at city level, with planned operating grants of €78.5M and provides clear objectives of storage deployment at household level, with the intervention of the EU structural funds for a volume of €3.3B and 20 MWh (megawatt per hour) between 2023 and 2029. There is also financing for multi-apartment buildings to install solar plants on roofs for common use (up to 10 kW).

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. 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). Additionally, the responsible authorities have been criticised for implementing non-transparent decision-making processes. To address this problem, in summer 2022 after a legislative change by the Ministry of Environment and Energy, 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).
There is no legal framework for collective self-consumption and energy sharing beyond the established framework for energy communities. However, it is allowed in multi apartment buildings with a majority of house owners’ approval, but in some cases a disproportionate network tariff applies. Also Lithuania has implemented a variation of energy sharing, commonly called “virtual net billing”. Those individuals or businesses that do not have a private rooftop or a yard, are offered to buy solar panels that are installed in so called remote solar parks, and become remote generating electricity consumers. Each individual investor buys and owns a certain amount of electricity generation capacity. This allows citizens, for example, to benefit from the solar installations on their holiday homes while working in the city. Alternatively, they can acquire a share of a power plant, located on the other side of the country. All electricity generated by this power plant is then accounted to the consumer’s balance. During the first half of 2023, the number of remote generating consumers more than doubled – more than 13,000 of them were connected to the grid. As of February 2024, there were more than 34 thousand remote generating electricity consumers in Lithuania with a total 202.7 MW capacity.

Lithuania has defined RECs “as non-profit making legal entities who own and develop renewable energy production facilities and have the right to produce, consume, store and/or sell energy in installations”. According to the REScoop tracker “the REC definition, at least on paper, can be considered a good practice. However, there is still further work to be done on the transposition”. The CEC definition has also been transposed. Legislation incentivises energy communities in general by introducing a beneficial framework, without need to have a licence as an independent electricity supplier. The State Energy Regulatory Board will inspect, supervise and control the compliance of RECs and CECs. Notwithstanding, it is still burdensome to get an energy community status from the regulator. As of February 2024, 3 organisations have REC status and 8 CEC status, but none of them produce energy from rooftops.

Once the government has created a more flexible and favourable regulatory framework with subsidy schemes for private individuals, there has been a significant uptick in the number of prosumers, usually on rooftops or in private yards and gardens. As of February 2024, there were more than 61,000 prosumers in Lithuania. Together they have already installed more than 800MW solar electricity generation capacity. However, there is a need for additional awareness campaigns. Lithuania had previously planned to roll out its €1.2 million smart metre installation project in 2021, with the aim of reaching its target by 2023. However, the rollout has been rescheduled and it was expected that by the end of 2023 80% of all electricity would be accounted for by smart metres. By September 2023, Lithuania had barely started their rollout.

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