Estonia solar energy market

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Estonia, Latvia and Lithuania have seen uneven development in PV installations to date, and the three Baltic states are still highly dependent on imports from Russia. Estonia needs to replace aging energy infrastructure, and so far it has led the region in PV deployments. Latvia, meanwhile, has a high level of hydro in its energy mix, and less incentive to build PV. IHS Markit analyst Susanne von Aichberger examines the latest policy developments in the Baltic states.

Image: IHS Markit

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At the end of 2020, the three Baltic states had a cumulative installed PV capacity of 800 MW. More than three-quarters of this has been installed in Estonia. Lithuania accounts for around one-fifth, while installations in Latvia are negligible.

The need to replace conventional power plants that were recently closed or are to be phased out partly explains the higher motivation for Estonia and Lithuania to expand the use of solar energy. As one of the EU member states with the highest per capita CO2 emissions, Estonia is being urged by the European Union to reduce its use of shale oil - the largest power generation source in the country. The planned closure of old shale oil facilities is incentivizing increased use of renewables.

Lithuania has been highly dependent on electricity imports since the closing of its last reactor at the Ignalina nuclear power plant in 2009. The plant was a bone of contention for Lithuania"s independence movement, S?j?dis, in the late 1980s. Plans for a new nuclear power plant were shattered after Lithuanians voted against the resumption of the technology in a 2012 referendum. With a high share of hydropower, Latvia"s need for the build-out of further renewable capacities is less urgent.

Estonia"s PV market was driven by a feed-in premium scheme until the end of 2020. This scheme was discontinued for new installations outside of tenders from 51 kW to 1 MW at the end of 2018, and for systems smaller than 50 kW at the end of 2020. The phasing-out of the incentive created a rush of installations in 2020. As clusters of systems below 50 kW were permitted, a large part of Estonia"s installed capacity was made up of larger systems. The high volume of grid-connection requests for PV systems of close to 500 MW overwhelmed the grid companies, meaning nearly all plants built in 2020 will be connected to the grid in 2021 or in 2022. New installations instead have fallen drastically in 2021.

Net-metering in Lithuania

Since its introduction in 2015, Lithuania"s net-metering scheme has been amended several times. The most

important changes came in October 2019. The upper size limit for commercial PV installations to run under net-metering was increased from 100 kW to 500 kW, and the upper limit for a simplified permitting process of microgeneration systems was raised from 10 kW to 30 kW. Another change to the net-metering scheme is the option to consume the electricity at a different location to the place of generation.

The latter has opened a whole new business model that enables customers who do not have their own roof space to buy or rent part of a solar park, and to run their part of the installation under the national net-metering scheme. It also helps developers to attract small investors. To bring together developers and investors, state-controlled utility Ignitis founded the first remote solar park platform in October 2019. Other companies offering participation in remote solar parks include Sun Investment group, Latvian utility Latvenergo, Egrup? and Saul?s Gr??a, and Solet Technics. The first remote solar parks to operate under this scheme were realized in 2020.

While the Latvian government is reportedly contemplating the opening of the net-billing scheme to larger systems and commercial installations, there are no known plans to improve the level of remuneration for the injected electricity.

Technology neutral tenders