

# PROSUMER HIGHLIGHTS FROM THE NETHERLANDS

## Short facts as of 2019

- 7 GW of total PV installed (i.e. 405 W per capita)
- 113 TWh of annual electricity production (gross), 19.3% from renewables (incl. 4.6% from PV)
- 23 Eurocents per kWh of total electricity price for a typical household
- Many energy communities/cooperatives in operation

## Best practices which have been identified

- Self-consumption has been allowed for a long time and is on average about 30% for a typical household PV system.
- Net-metering will be abolished gradually starting in 2023 and ending completely in 2031.

## Important barriers which need to be addressed

- Increasing self-consumption is not economically interesting at the moment due to high battery storage cost.
- Trading surplus PV energy with neighbours is possible but is subject to double taxation.
- DSOs are not allowed to add batteries in support of grid stability. Aggregators are allowed, but they need to have a certain minimum capacity to be able to act on trading markets.
- Handling flexibility at the local grid by increased PV penetration should be organized.
- Compared to other countries, there are no nationwide obligations to install PV. The national climate treaty mentions a technology agnostic contribution to CO<sub>2</sub> reductions in the built environment only.

## Foreseeable path for overcoming barriers and developing the framework for prosuming

- There is a political commitment to have a zero-emission society by 2050, with intermediate goals for 2030. This is based on a combined implementation of solar and (mostly off-shore) wind. A roadmap for PV systems has identified a potential of >200 GWp. Achieving 100% electricity from renewables on the basis of an annual balance by 2030 requires the installation of additional 10 GW of PV (approx.).
- Following the EU Clean Energy Package, new community and citizen participation based models are being organized in the framework of the development of Regional Energy Strategies.

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