

Status of Rooftop PV Generation in South Africa

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Abstract

There has been a worldwide rise in the installations of rooftop photovoltaic (PV) systems over the past few years and this trend is now also being seen in South Africa. These systems are installed on residential-, commercial- and industrial- rooftops at a cost of the property owners. As of March 2016, the estimated privately owned rooftop PV capacity in South Africa amounted to ~159MW. This is a rise from just 50-70MW in 2015. This increase is primarily due to the declining cost of PV technology, rising electricity prices and the abundance of sunshine in most parts of the country. It remains to be seen if the installations of rooftop PV systems will continue to rise in South Africa. International experience has shown that a high uptake of rooftop PV is not only fuelled by the three factors mentioned above, but also by policies, financial incentives, metering arrangements, regulations and successful business models. The question now arises whether the conditions in South Africa are such that it will continue to encourage property owners to install these systems and also whether there are constraints that can limit further development of rooftop PV in the country.

This paper presents a comprehensive review on the current status of rooftop PV generation in South Africa and compares this to countries that already have a high uptake of rooftop PV installations. Thereafter, the major constraints that can impede the further development of rooftop PV in South Africa will be identified.

Key words: Rooftop PV; tariffs; metering; grid-tied; low voltage network

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