World Champion 60-cell format modules

Publieke samenvatting / Public summary

Aanleiding

The most effective path to solar energy cost reductions is to increase the power output of solar modules. To extract the most power at a given efficiency, all system components must be optimized for the integrated product. Successful market adoption, requires proof at systems level of this fully integrated technology.

Doelstelling

Each of the CHAMP consortium partners is independently developing innovations that increase bifacial and all back-contact module powers. CHAMP aims to integrate the design of these innovations and then demonstrate and validate these modules with world class power output and market feasibility.

Korte omschrijving

In CHAMP, we propose to integrate industrially viable bifacial and back contact cell technology from ECN and Tempress with DSM module materials for advanced light management into a module manufactured by Exasun and install it with an innovative new high power micro-inverter from Heliox. These 60-cell format modules will achieve world champion peak power outputs under standard test conditions. In addition STC performance, we also plan to demonstrate energy production at the systems level in an outdoor test facility built by Tempress with direct comparison and analysis with commercially available monofacial and bifacial modules. In combination with a thorough performance analysis this will lead to a new performance indicator for bifacial modules in

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Algemene informatie / General information

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Publicaties en materialen / Publications and attachments

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effective Watt-peak (Wp-e); which does not exist today.

Resultaat
In addition to world class modules built with Dutch technologies, proof of new module materials, prototype high power micro-inverters, and a test field for systems level monitoring of new concepts, CHAMP will also result in clear understanding of the optimized parameters for systems level performance throughout the value chain.

De data in deze applicatie is afkomstig van de Rijksdienst voor Ondernemend Nederland (RVO) en wordt in samenwerking met de Topsector Energie ontsloten.
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