Smart durable high performance PV modules

Publieke samenvatting / Public summary

Aanleiding
Een duurzame energie-optie die niet in de SDE+ zit en waarop door innovatie additionele productie haalbaar kan zijn. The project contributes to the TKI's goals by realizing advanced module concepts leading to lower costs per Wp on a module-level in combination with a long lifetime.

Doelstelling
The objective of Smart HiPerPV is to develop durable high performance PV modules and junction boxes based on back contact glass-glass technology.

Korte omschrijving
The PV market is setting off. Several developments have led to an attractive business case for PV, but intrinsic costs of electricity generated by PV systems are still too high. Current challenges include durability, long term performance and higher kWh/Wp conversion ratio. The objective of Smart HiPerPV is to develop durable high performance PV modules and junction boxes based on back contact glass-glass technology. In WP1 (design HiPer laminates and components), LineSolar and ECN create a smart BCG module design based on MWT and IBC cells. Sensus Energy and ECN develop INTELECT technology to deal with shadow sensitive situations. In WP2 (development j-box and system intelligence), Solned develops appropriate junction boxes for several module configurations. The INTELECT development is integrated on a full module scale (60 cells). Solned and AERspire conduct a feasibility study to integrate further intelligence in the junction box. In WP3 (prototyping and regulation), activities concerning prototype

Projectinformatie / Project information

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Algemene informatie / General information

Penvoerder / Secretariat
Solned B.V.

Publicaties en materialen / Publications and attachments

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production of the BCG modules (LineSolar) and junction box (Solned) take place. AERspire gives input from a BIPV system perspective and KIWA reviews the designs regarding certific

Resultaat

The developments will result in a significant improvement of costs per Wp and kWh produced by PV systems. The smart durable high performance PV modules will be suited for application in the grid connected infrastructure, taking into account interaction/communication with the grid and user applications.

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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