



MANUFACTURING EXCELLENCE

Process Excellence • Product Excellence



INTRODUCTION

Sunkonnect has developed a scientific approach to help module manufacturing companies stay on track in delivering safe and high-quality PV modules and systems through a detailed assessment of manufacturing lines, materials, equipment, standard operation procedures (SOP) and designs. Sunkonnect is well-equipped in research insights and technical experience relevant to solar PV materials. Our insights would serve you in achieving quality and technical excellence for your products and projects.



PROCESS EXCELLENCE

Sunkonnect carefully qualifies your production line to identify problem areas and scope for improvements. Our dedicated scientists and engineers carry out systematic checks and propose resolutions as per the latest testing and safety standards (IEC & UL).

Process Development

We develop processes for new factories in compliance with IEC 61215 and UL 1703 standards.

Process Optimisation

Comprehensive data analysis of all potential losses and their causes (electrical or optical) with reference to manufacturer's electrical data and material database is conducted and improvements are proposed.

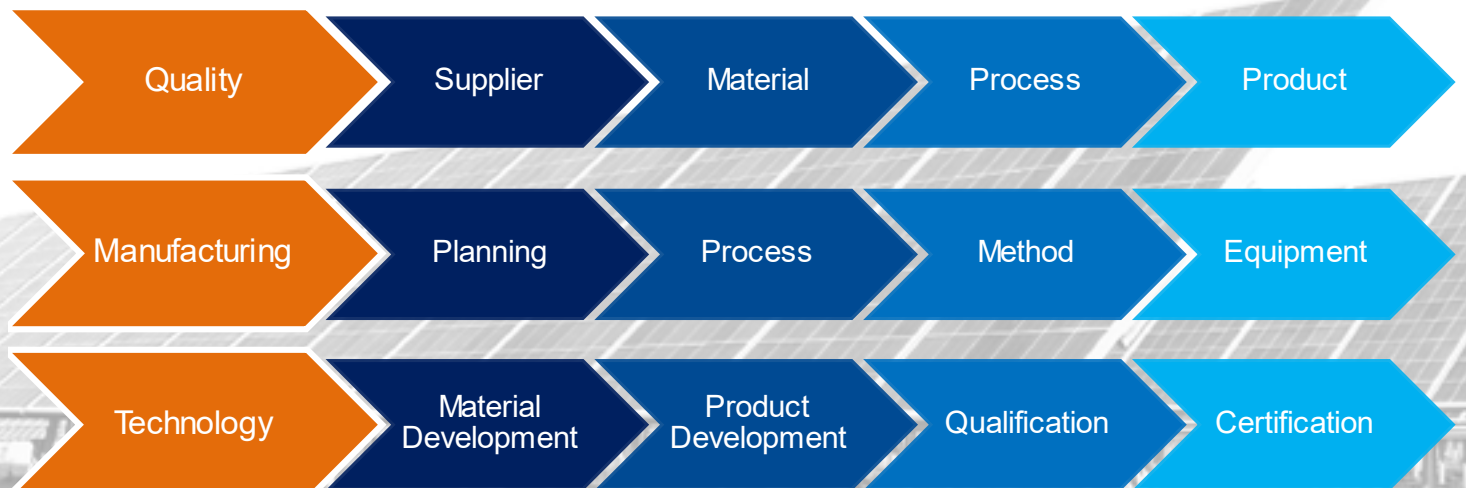
Equipment Selection

Through our in-depth industry experience, we can identify the best equipment for your cell and module manufacturing processes.

Flasher Calibration

We check the calibration equipment and provide insight on the calibration of the module and provide technical insight of golden module towards calibration correction.

Sunkonnect's target areas of analysis in achieving Manufacturing Excellence.



PRODUCT EXCELLENCE

Sunkonnect conducts a comprehensive audit of your bill-of-materials (BOM) to reduce your Cell-to-Module (CTM) loss and improve the panel efficiency.

Cell-to-Module Loss Reduction

We assess the bill of materials (BOM), including the external quantum efficiency (EQE) of cells and modules, produced concurrently. This data is used to propose improvements to reduce the CTM loss occurring due to materials and processes.

Yield Improvement

We propose an optimal BOM for higher optical gain based on quality assessment and calculations performed. By fine-tuning in-line processes and equipment, we can reduce the losses and increase the line yield.

\$/W improvement through design innovation. ▶

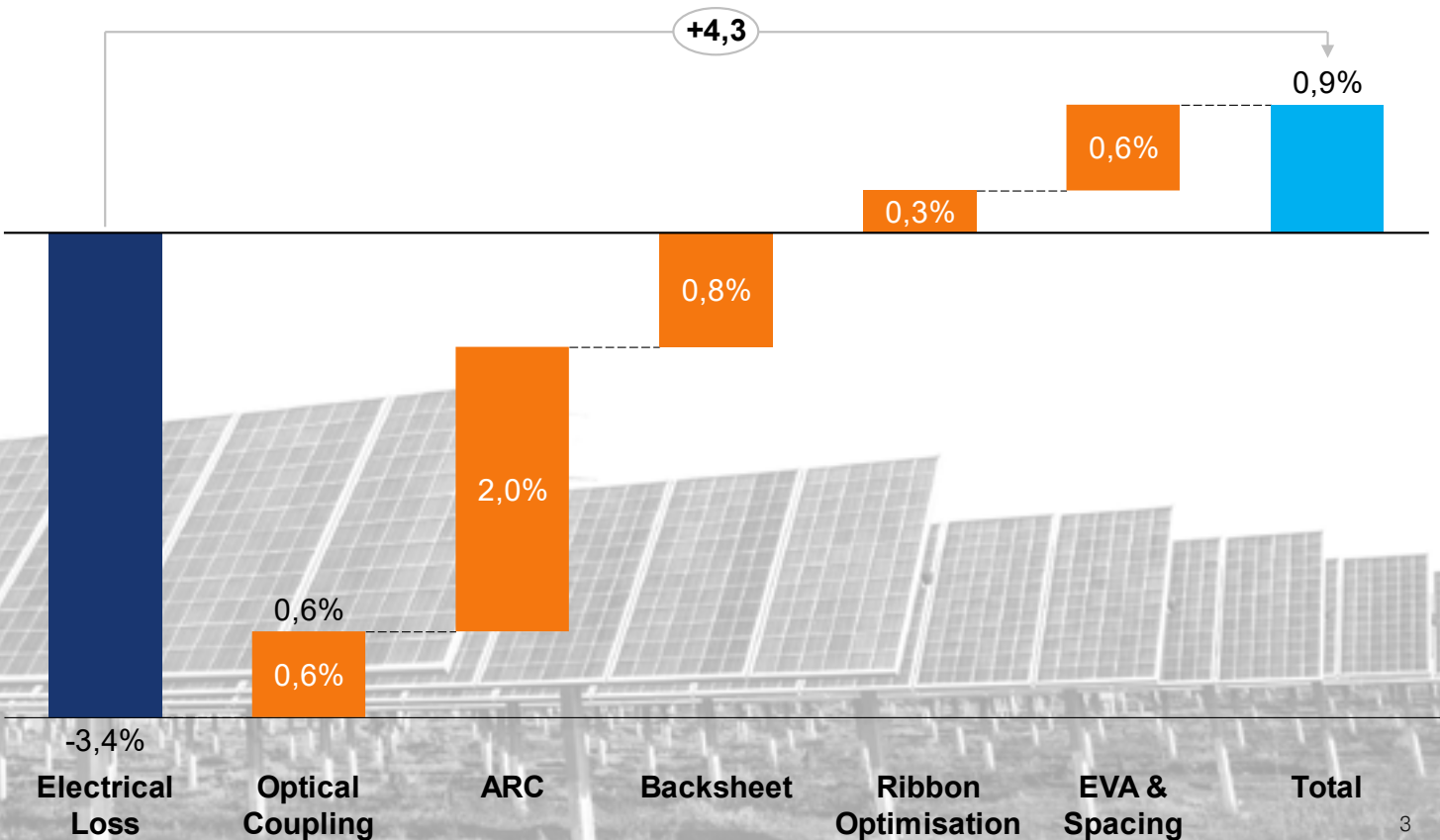
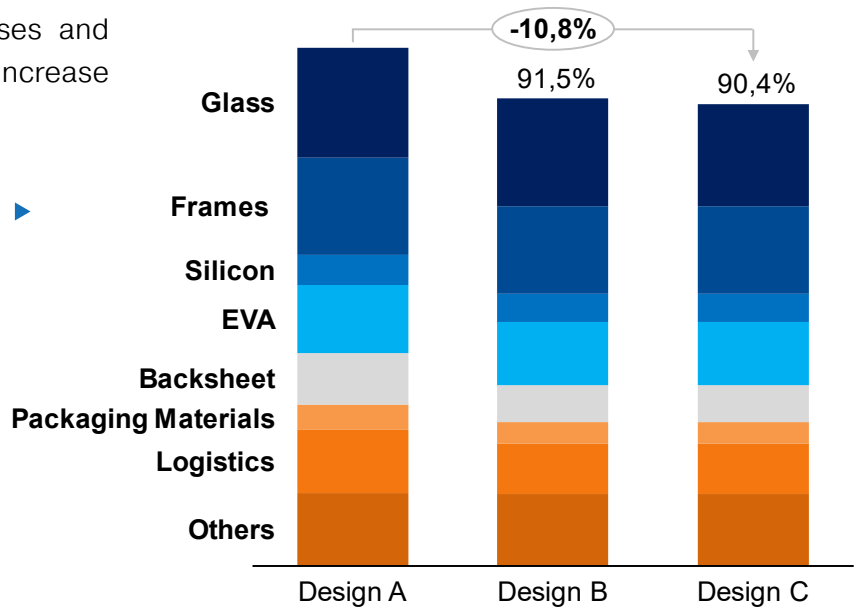
Power loss optimization by module component. ▼

Golden Module Certification

Define Golden Module for production line through certification by VDE, in partnership with the Solar Energy Research Institute of Singapore (SERIS).

\$/Watt Improvement

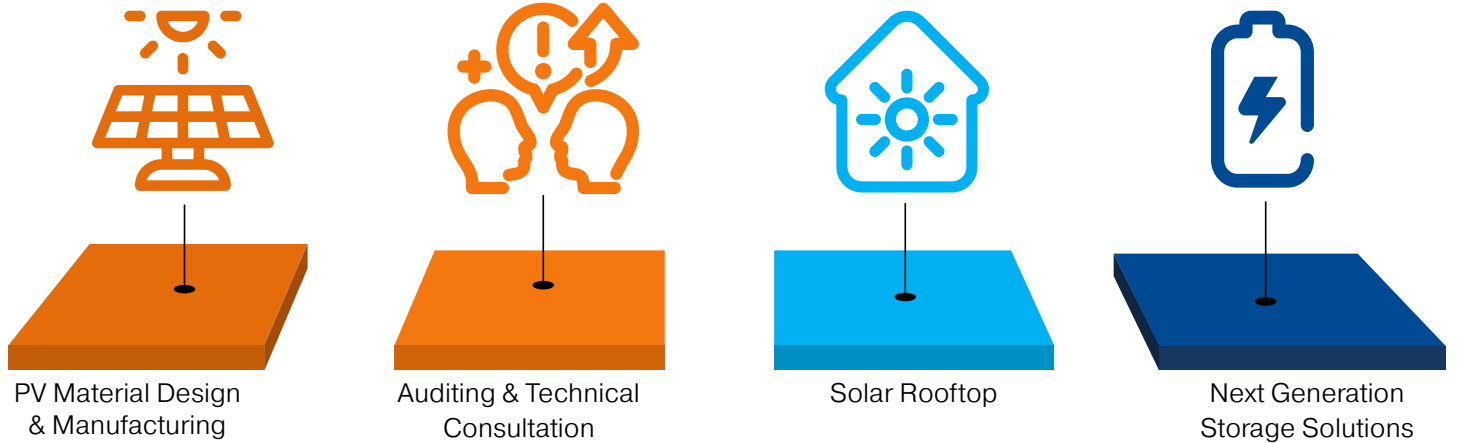
Sunkonnect works with your engineer to develop new materials and recipes for cost reduction and increased output.



ABOUT SUNKONNECT

Sunkonnect is a global renewable energy management consulting firm based in Singapore. We work with system owners, developers, EPC players and manufacturers in making significant and long-lasting improvements to their products and processes. Our team has over ten years of experience within the renewable energy field, including the areas of solar PV technology production, manufacturing, quality assessment and systems deployment. Our consultants include engineers, research scientists, lead auditors and energy policy analysts who work closely with our clients to achieve their goals.

Sunkonnect's service verticals



OUR PARTNERS



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