

Insurance to enhance Bankability Risk Transfer Solutions for Solar PV and Energy Storage

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Green Tech Solutions within Munich Re The world's largest reinsurer's financial strength at your side



Munich Re (Group)

- World's largest reinsurer by premium volume
- Founded in 1880
- Group Result 2017: € 392 mln (2016: € 2.3 bln)
- Approx. 43,000 employees
- Assets under Management: > € 250 bln
 (also investing in Renewable Energy projects)

Rating

A.M Best	A+ (Superior)
Fitch	AA (Very Strong)
Moody's	Aa3 (Excellent)
S&P	AA- (Very Strong)

Green Tech Solutions

- Pooling expert resources and know-how in the field of renewable energies and energy efficiency
- Risk transfer solutions, covering the performance of new, disruptive, and unproven technologies, are developed and deliver technical endorsement, bankability and business enabling results to all project stakeholders



Summary of PV Module Warranty Insurance Three approaches to support PV bankability



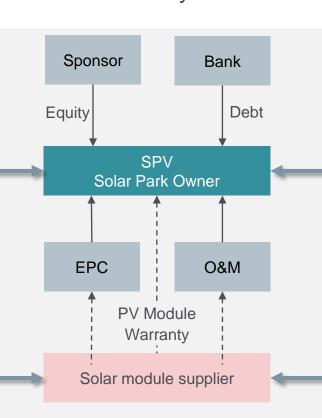
Solar Park Performance Cover investment protection

- → back-stop of PV module warranty in the event of manufacturer's insolvency
- → flexible structure to meet lender's or investor's requirements
- → perfect solution to support <u>project</u> <u>finance or resales</u> of the project

PV Corporate Cover

balance sheet protection

- → insures the complete sales of the manufacturer
- → perfect, and most cost-effective balance sheet protection.



PV Sales & Buyers Cover balance sheet & investment protection

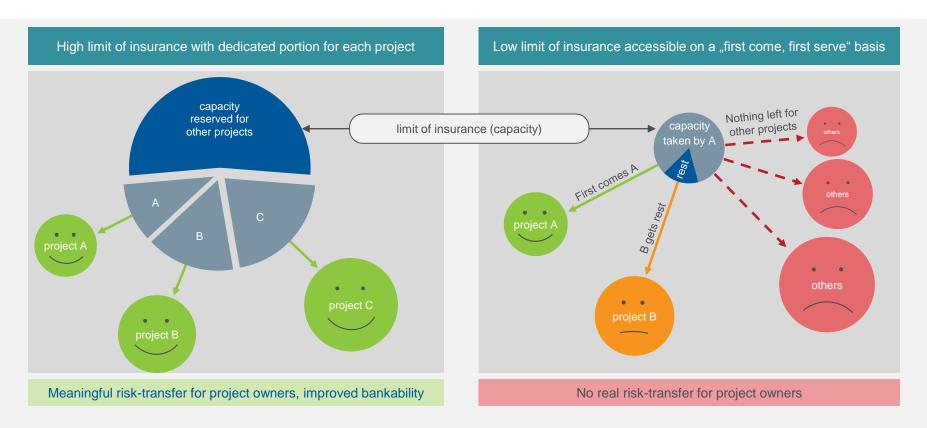
balance sheet & investment protection

- → insures specific Sales Contracts
- → combination of <u>balance sheet protection</u> and <u>insolvency back-stop</u>
- → park owner is beneficiary in the event of manufacturer's insolvency with clearly assigned limit and deductible: No "first come, first serve" problem
- very strong marketing advantage for the manufacturer
- → adequate warranty back-stop for many park owners.

Critical Features in Warranty Insurance Solutions



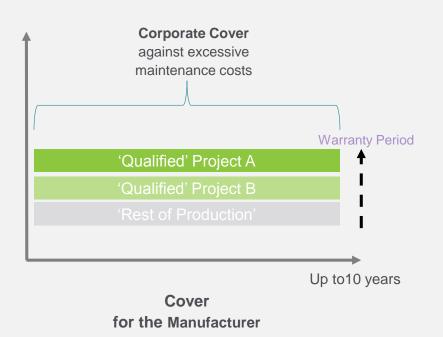
High Limits and individually assigned capacity enhance bankability

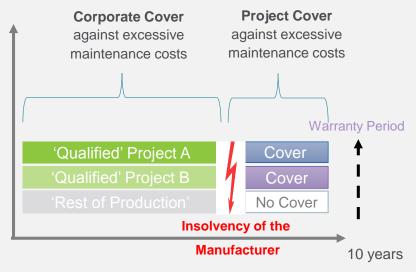


Risk Transfer Structure for Energy Storage Systems



A flexible framework to satisfy the needs of manufacturers and customers





Cover for the Manufacturer



Cover for the Project Owner in the Insolvency Case

Information required for the underwriting and risk assessment Desktop information exchange plus manufacturer audit*





- Name of the Developer / EPC
- Manufacturer of the PV modules
- Module Types and certificates
- DC power, location and time plan of the Park
- A detailled questionnaire will be shared subject to a NDA



- Name of the BESS Manufacturer
- Technology, type and power/capacity of the BESS
- Name of the Battery Cell / Module / Rack Manufacturer (non-flow)
- Underlying supplier warranties regarding the sub-components of the BESS
- Warranty and O&M-Plan according to the planned usecase
- Depending on the above Q's a specific questionnaire will be shared under NDA
- Resources risks (irradiation / wind) and market price risks might be covered in specific cases upon special request

Green Tech Solutions – Our Team Talk to us...



Further information, flyers and contacts at:

- www.munichre.com/gts
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