



Munich Re Green Tech Solutions Energy Storage System – Product & Performance Cover

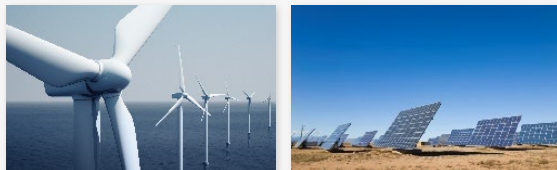
Dr. Sebastian Scholz
Product Lead Smart Energy / Energy Storage
Munich Re, Green Tech Solutions

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Growing profitable business while tackling climate change

Established Renewables



Solar Energy

Wind Energy

Smart Energy



Electrical Energy Storage

E-Mobility

Air Conditioning/ Heating

Sustainability Improvements

Energy Efficiency

Circular Economy



Bio Energy/ Waste to Energy

Fuel Cells

Decontamination

Water Treatment

Efficient Resource Extraction



More than
USD 1.5 bn exposure in
support of over
USD 20 bn capital in
green technologies



- Internal expertise due to industry experts in-house
- Own test field at research center
- More than 180 PV manufacturers audited

Focus on **Technology**
and **Performance Risk**



Long term performance
protection up to

25 years



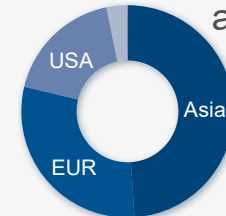
Additional triggers, e.g.,
Insolvency
of the manufacturer



World-class partnerships
with research and
certification institutes, e.g.,
DEKRA, Fraunhofer,
TÜV, VDE, ...



Over 100 insured projects
and manufacturers

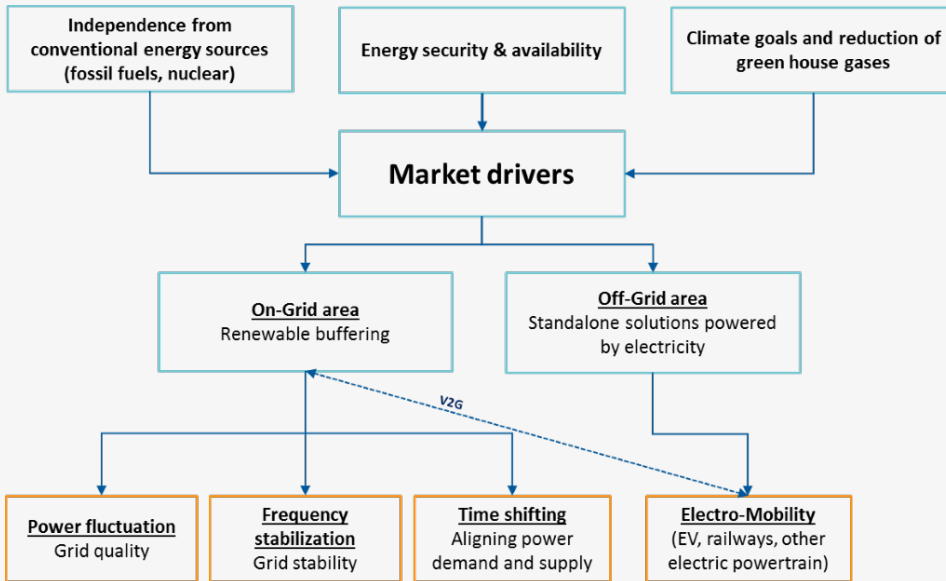


in 16 countries
15 GW insured

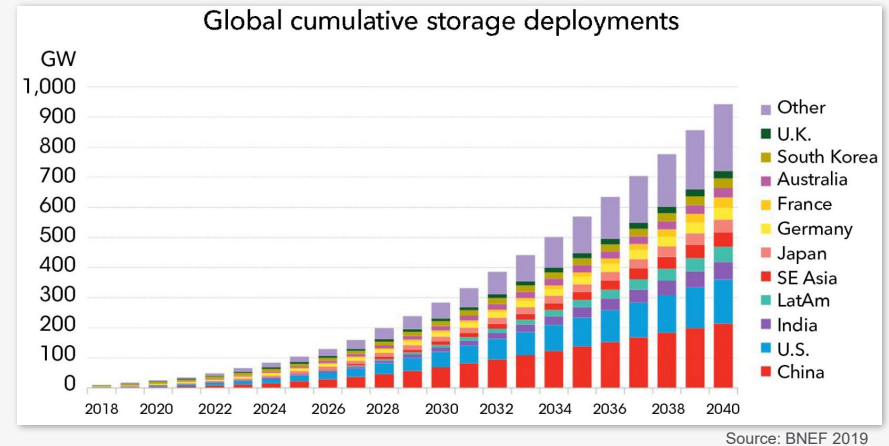
The future of energy generation

Renewable energy sources powering our daily lives

Market drivers and applications for EES



Global energy storage market in 2040

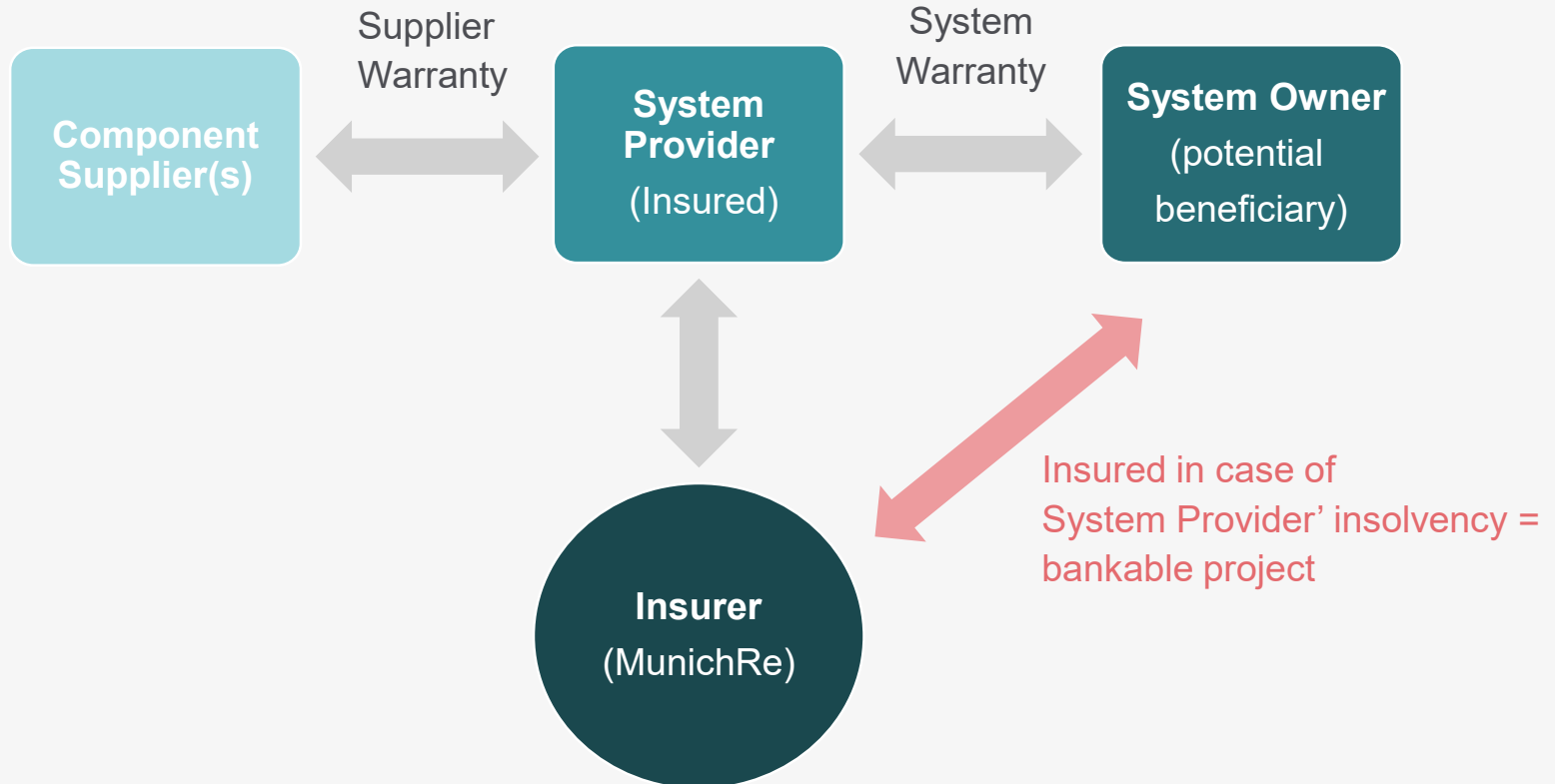


For your next Request for Proposal (RFP)

Require an Investment Grade Warranty

- An Investment Grade Warranty brings down your cost of capital
- An Investment Grade Warranty ensures the long-term success of (the cash flow model) your project
- Good practice example:
 - **ESS Supplier must provide a warranty** for the proposed Energy Storage System for the project **for at least 10 years** of operation
 - *Supplier to define key operating parameters in warranty, including, but not limited to capacity, efficiency, temperature, availability*
 - *Supplier to define operations and maintenance requirements for warranty compliance*
 - **ESS Supplier must have an Investment Grade credit rating**, secure Investment Grade parental guarantee, or Warranty Insurance policy from an entity with a minimum credit rating of S&P BB-, Moody's Baa3.
 - *Parental Guarantee or Warranty Insurance term (in years) should be at least 10 years*
 - *Parental Guarantee or Warranty Insurance must provide for dedicated capacity for the Project assigned to Developer and transferable to future owners of the Project*

Warranty Parties involved and their relationship



Energy Storage System (ESS) Performance Warranty Cover

Description

Long-term product & performance cover for

- Battery Cells & Packs
- Stationary Energy Storage Systems
- E-Mobility Applications

Risk Transfer Solution

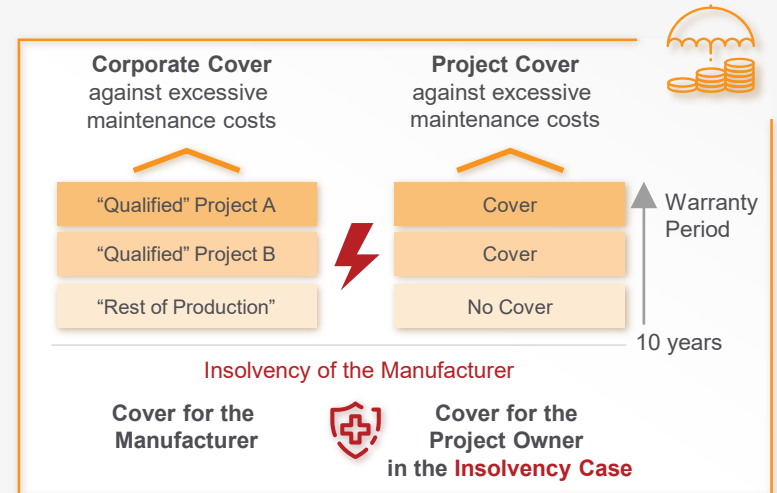
- Indemnification of excessive warranty claims
- One time premium based on insured year's revenue
- Non-cancellable for the insurer

Achievements

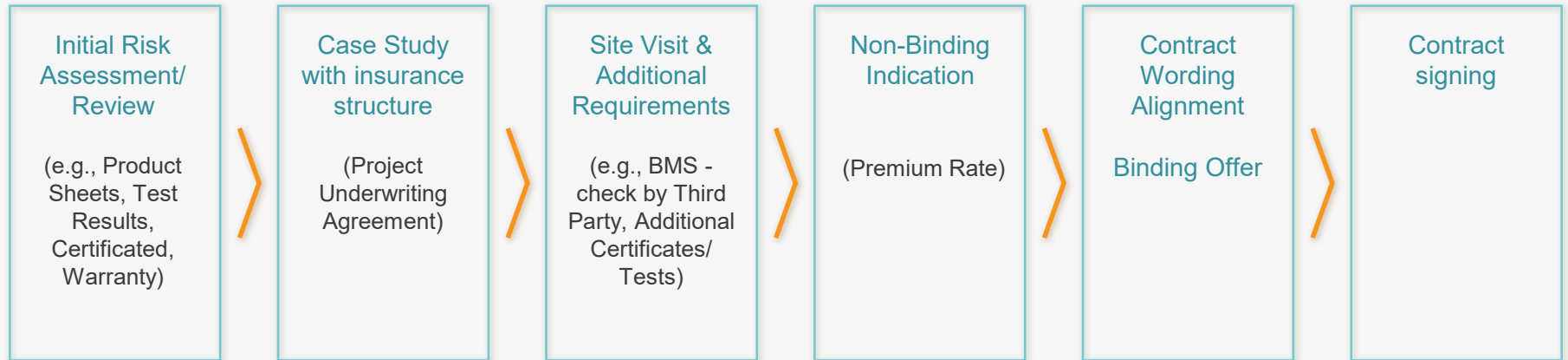
- Increased predictability for financial reserving
- Boost of growth-relevant cash reserves for R&D/marketing
- Balance sheet protection

Value proposition

- Long-term security for manufacturer during multi-year liability period
- Add-on: insolvency protection for large investment projects



Required steps to finalize a tailor-made insurance solution



In-house technical experts



Underwriting in Munich and in local branches



Detailed Pricing Model and Scenario Analysis



Thank you very much for your attention!



Dr. Sebastian Scholz

Product Lead Smart Energy / Energy Storage

Tel. +49 89 3891- 8128

sescholz@munichre.com

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