

# GIZ-Project in Pakistan: Establishing the Solar PV sector through quality

David Wedepohl (BSW Solar | German Solar Association)



# Initial contact with the market: Value chain analysis in Pakistan in 2016 / 2017

BSW-Solar did a comprehensive research on the Pakistani PV market & it's value chain in 2016/2017 with the study „*Value Chain Analysis of the Solar PV Market in Pakistan*“ on behalf of the GIZ.

## Outcome: Potential target segments for German PV products & services

### 'Grid tied' inverters

for use in **medium scale** (100kW-1 MW) and **large scale** (>1 MW) grid connected in industrial and commercial sectors

### Batteries (Flooded or AGM)

The **residential, off-grid & the commercial** sector installations requiring battery back up

### PV testing & monitoring equipment

(battery testers, PV panel testers, PV analyzers, PV panel flash test equipment)

### Technical consulting services

Techno-economic feasibility & grid connection studies, support in project tendering process, monitoring of commissioned projects and O&M

### EPC Companies

for developing both commercial sector (kW scale) and large scale (>1 MW) grid connected projects

**Challenge identified:** Lack of '**Customer awareness**' for PV and the benefits of investing in high quality and certified equipment need to be increased.

**Download:** <https://www.solarwirtschaft.de/enabling-pv.html>

# Activity 1: Solar Quality Passport (SQP)

## The Challenge ...



**Example 1:** Pinched cables due to incorrect installation



**Example 2:** Moving PV system due to insufficient weight on mounting structure

## The Solution ...

**Solar Quality Passport Pakistan (SQP)**, jointly developed by the BSW- Solar and the „Solar Quality Foundation“ (SQF) based on experiences from Germany and South Africa.



**SQP** is a private sector driven quality programme, which pursues an educational and a standardization approach. It starts exactly where the most frequent errors occur: during installation.

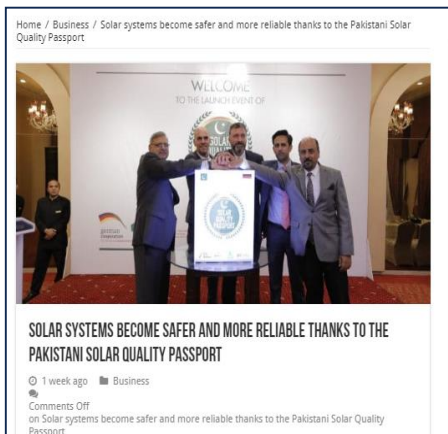
**Implemented by the Solar Quality Foundation**

<https://solarqualitypassport.pk/>



# Media resonance to the SQP

- Launch of the Solar Quality Passport on April 24, 2019 with reveal of the Solar Quality logo generated significant interest in the Renewables Sector in Pakistan. Net media coverage value of PKR 10,433,500/- (Euros 55.220,-) across print media, TV channels and online blogs.
- Active social media presence through solarqualitypk Facebook and Twitter accounts creating awareness about solar quality.



## Activity 2: Banking training on solar PV

- Technical assistance package training for 4 commercial banks
- The financial models helped the banks a lot in understanding the viability of PV systems. All banks claimed that they have applied or will apply the model in customer interactions and credit appraisal
- Capacity gap was narrowed as a result of the work



## Activity 3: 'Train the Trainer' on PV installation

### Impact:

- 15 'Master Trainers' from 4 training institutions in Pakistan were trained and certified by renac;
- The capacity building is a means for improving the quality of training curricula and trainers at various Pakistani training institutes;
- The training target group has a multiplying effect, as each class they graduate with their improved skills increases the available highly skilled technicians in the Pakistani solar market;
- The training also aimed at disseminating the Solar Quality Passport as a means for both project developers and customers to review a completed grid connected PV installation.





## Activity 4: Pakistan-German Renewable Energy Forum (PGREF)



- The dialogue platform brings together policy-makers, industry, science and civil society from both countries, promoting cooperation and knowledge transfer;
- Gives high-level decision-makers from Pakistan and Germany the opportunity to share their know-how and experiences on a successful and sustainable transition from fossil fuels to renewable energies;
- To implement PGREF, the BMZ and the Pakistan Federal Ministry of Energy, represented by the Alternative Energy Development Board (AEDB), have signed a MoU. Both countries have also agreed to establish a High-Level Steering Committee (next meeting, September 2020).

### Publication:

- A Market & Roadblock Analysis: <https://pgref.org/publications>



## PGREF activities: Cyberscurity

- BSW-Solar developed recommendations on 'cybersecurity' in Pakistan based on the results of a series of workshops and expert interviews conducted during the project in 2019.
- Outcomes / recommendations for future activities:
  - Initiate a digitalization group with an emphasis on cybersecurity & having all stakeholders on board (including stakeholders from the security and financial sector);
  - developing cybersecurity frameworks & standards;
  - Developing Guidelines and training programs for utilities, TSOs, DSOs
  - Support the “National Electric Power Regulatory Authority” (NEPRA) in coordinating the regulatory efforts;
  - Initiate a joint German-Pakistani collaboration on cybersecurity of critical infrastructure, including joint exercises on a regular basis.





## Contact us for further information

Luz Aguilar

International Project Manager

German Solar Association

E: [aguilar@bsw-solar.de](mailto:aguilar@bsw-solar.de)

T: +49 30 29 777 88 40