



Asia



India

## Strengthening Quality Infrastructure for the Solar Industry

**Objective** The overall objective of the project is to improve the quality infrastructure services required to ensure the quality and reliability of photovoltaic components and systems according to the demands of the solar sector.

**Approach** The project has a multi-stakeholder approach. This means that diverse topics and actors from the Indian quality infrastructure system as well as India's solar industry are involved on the micro, meso and macro level. To achieve the overall objective, the project focuses on three fields of activity: (1) Improvement of metrology and testing services by strengthening the technical and institutional capacities of the laboratories concerned; (2) Improvement of quality control mechanisms as defined in tender procedures, standards, technical regulations, accreditation and certification schemes; and finally (3) Training and awareness-raising activities with regard to the pivotal role of quality infrastructure services in the solar sector. In all three areas, PTB and the Indian partners cooperate with national and international experts and institutions which are renowned worldwide. While providers of quality infrastructure services are perceived as the key intermediaries, the Indian solar sector – as the user of these services – is defined as the major target group. Based on the achievements made within a predecessor project and in response to an increased demand for quality infrastructure services, the current project has an enlarged geographical scope, involving partners in Delhi, Bangalore, Mumbai and Calcutta. The National Institute of Solar Energy (NISE), an autonomous institution of the Ministry of New and Renewable Energy (MNRE), remains the major implementation partner, while MNRE itself acts as the political partner.

**Impact** India's energy consumption has been growing steadily with an increase of approximately 8% yearly over the last 10 years, and the Indian government has great ambitions to massively increase the share of renewable energies in overall energy production. Under the Indo-German Solar Energy Partnership, India and Germany agreed in 2015 to particularly foster the use of solar energy through concessional financing and technical assistance and thus to contribute to India's target of 100 GW of solar capacities by 2022, the goal of the "Jawaharlal Nehru National Solar Mission".

By systematically supporting the establishment of technical expertise in the fields of conformity assessment, measurement, accreditation and standardisation, the project fosters the consolidation of an efficient, safe and sustainable Indian solar photovoltaic sector – a prerequisite for achieving the high political targets. Support is also provided for linking quality infrastructure organisations to the solar sector. Various stakeholders receive advice on how to make effective use of QI services in order to increase the quality of photovoltaic systems and components. Last but not least, ministries, regulatory bodies and financial organisations are encouraged to use instruments of conformity assessment in order to determine quality criteria and to monitor compliance with them. As a result, international competitiveness as well as investment security will rise, and the solar sector can deliver its full potential to the socio-economic development of India.

**Cooperation** The project is part of the "Indo-German Solar Energy Partnership". Together with the *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)* and the *Kreditanstalt für Wiederaufbau (KfW)*, PTB is supporting Indian partners in their endeavour to transform the energy sector towards an increase in renewable energy use.

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