Title: Key lessons from the PV sector: Quality infrastructure and technical requirements in public auctions

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Abstract:

This presentation highlights key lessons learnt from international experiences with technical requirements in solar PV auctions. Such requirements with reference to international quality standards primarily aim to reduce frequent quality defects that are identified in PV power plants worldwide in different climate conditions. In the presentation, these defects are mapped to the international quality standards that could have prevented them.

On this basis, strategies are proposed for the introduction of technical requirements in the design of public auctions in newly adopting countries. The potential benefits are substantial: in addition to reducing quality defects and increasing safety, technical standards may help attract longer-term private investment and guarantee that local producers upgrade to the global technology frontier. For these benefits to materialise, policymakers should set clear national goals, e.g. in the form of a mission, and gradually introduce technical requirements. Moreover, the content of technical requirements should be communicated in a clear and effective way, and compliance with international quality standards should be monitored at all stages of the project.

The third part of the presentation explains how the national Quality Infrastructure (QI) system and its individual components constitute the basis for compliance with international quality standards along the PV value chain. To comply with technical requirements referenced in tender documents, the PV sector stakeholders need access to QI services, such as component testing, plant certification and the calibration of reference modules and cells. Depending on the national objectives and existing capacities, different strategies to develop the QI system can be chosen. The presentation closes with a summary of the learnings on the development of the QI system from the PV sector that are relevant for the emerging green hydrogen sector. While there are differences in the specific services needed, both sectors require an early strategic planning of the QI development.