Data Model and Data Acquisition for PV registration schemes and grid connection – Best Practice and Recommendations

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Purpose of this Report

**Review**
- Collect existing requirements related to PV registration schemes and data models
- Key finding: Knowledge about installed PV systems varies a lot in quality and quantity

**Use case**
- Gather market data
- Administration of FIT, subsidies, guarantees of origin
- Administration of legal permits
- Grid planning and operation, power production forecast
- Project management support

**Outcome**
- Provide best practice examples from PVPS countries
- Develop recommendations regarding data acquisition and data modelling.
The following basic data of a PV system shall be collected

<table>
<thead>
<tr>
<th>Basic data for database</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative data (identification number, name of the owner, contact details)</td>
</tr>
<tr>
<td>Location (address, coordinates)</td>
</tr>
<tr>
<td>Nominal AC power</td>
</tr>
<tr>
<td>Nominal DC power</td>
</tr>
<tr>
<td>Date of finalization of project* / commissioning* / system update / decommissioning</td>
</tr>
</tbody>
</table>

Additional data to be collected is named in the report.
Recommendations: Database Organisation

The database should have a flexible level of detail and therefore address the needs of multiple stakeholders.
• Countries should operate a database for Distributed Energy Resources (DER), in particular for PV power systems:

• DER database shall be open for multiple stakeholders.

• DER database shall cover all DER, not just a part of them, e.g. systems that are granted a FIT.

• The use of the DER database shall be compulsory.

• Objective: A DER database shall reduce the overall administrative load for PV system planning, realisation, commissioning and operation. ➔ Therefore, the database shall substitute or support existing administrative processes.