Case Study
Off-Grid Installation
Bangalore, India

The Challenge
An unreliable electric grid in combination with the owner’s deep interest in solar power were the two main reasons to install an off-grid system in the luxury apartment complex "Ashish Pride" in central Bangalore, India. This is Bangalore’s first apartment complex to run on solar energy.

System components

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
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<tbody>
<tr>
<td>Solar modules:</td>
<td>EMMVEE 20kWp Solar Panels</td>
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<tr>
<td>Batteries:</td>
<td>Amar Raja Batteries Ltd, 1520 Ah</td>
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<tr>
<td>Inverter/Chargers:</td>
<td>Studer Innotec, 3 Xtender inverter/chargers, XTH 8000-48, 115Vac / 60Hz (-01)</td>
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<tr>
<td>Solar charge controller:</td>
<td>Studer Innotec, 3 VarioTrack MPPT solar charge controllers, VT-80 and 1 VarioTrack MPPT Solar charge controller, VT-65.</td>
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<tr>
<td>Remote Communication:</td>
<td>Studer Innotec, 1 Xcom-GSM</td>
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Why Studer
The owner chose Studer products for this installation, as he needed inverter/chargers capable of handling high surge loads like an elevator and motors.
This independent system is also pre-configured and is totally trouble free. There is no manpower required for its continuous operation.

The Solution
The loads for this apartment complex includes the common area lighting (including the garden), a Schindler-elevator for 10 persons, four water pumps (2 Borewell submersible pumps and 2 pumps for an overhead tank) and five apartments.
During power outages, the system also provide backup for the lighting of the 25 apartments.

Project outcome
The system was commissioned in 2015 and the off-grid system has been able to produce enough energy, in average 90-110 kWh/day, to power the specified loads.
The area previously used by the diesel generator for backup has been converted into parking spaces. The owner has also been able to increase the price of the apartments with the selling argument that he can guarantee power 24/7 with solar energy.

The Company
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