

For Golden Sa'fa requirements, 10% of the electrical load shall be from on-site solar power.

Based on Table 504.03 (1), for a total electrical load of 310.50 kW, 10% of this load would be 31.05 kW.

For this project, let us consider solar photovoltaic (PV) panels to generate electrical power. To generate 31.05 kW, approximately 320 m² area would be required. Total available area in the roof is 500 m² and hence by installing solar panels the requirement of 10% of electrical load is met.

Scenario 2 (with insufficient roof space)

Let us consider that the available roof space for solar PV panels is only 280 m² instead of 500 m² in the above example (scenario 1). In this case the electrical power generated through solar PV panel would be 28 kW which is less than the required value of 31.05 kW.

In this case, the following approach can be considered.

Common area lighting load = 11.75 kW

For Golden Sa'fa requirements, 30% of the common area lighting load must be met through on-site renewable energy source, which is 3.52 kW. However, the minimum capacity as per the regulation must be 20 kWp. Since the project has 280 m² of available roof space, by installing solar PV panel for 20 kWp, the project can comply with Golden Sa'fa requirements.

COMPLIANCE DOCUMENTATION

Table 504.03(2): Documents Required

Project Stages	Submittal Documents
Design Permit Application	<ol style="list-style-type: none"> 1. Electrical load calculation as per the requirements. 2. PV system technical specification. 3. Design drawing showing the location and capacity of PV system. 4. DM BLDG solar power calculator.
Construction Completion Application	<ol style="list-style-type: none"> 1. Final approved design drawing showing the location and capacity of PV system. 2. PV system manufacturer data and delivery notes. 3. DEWA approval
After Completion	<ol style="list-style-type: none"> 1. Performance and commissioning report.

REFERENCES AND ADDITIONAL INFORMATION

DEWA. (n.d.). Shams Dubai, Information from - <https://www.dewa.gov.ae/en/customer/innovation/smart-initiatives/shamsdubai>.

DEWA. (n.d.). Shams Dubai, Information from - <https://government.ae/en/about-the-uae/strategies-initiatives-and-awards/local-governments-strategies-and-plans/dubai-clean-energy-strategy>.