



ALCAP Independent PV Performance Evaluation

An evidence-based review of whether installed solar PV systems are delivering the benefits originally forecast.

Solar projects are typically sold on projected generation, savings, payback periods and carbon reductions. Once operational, however, actual performance can differ due to design assumptions, equipment availability, shading, soiling, irradiance levels, monitoring gaps, tariff changes and maintenance issues.

Monthly performance reports may also present explanations for underperformance that are not independently verified.

A review includes:

- Comparing actual generation with the original financial and technical forecasts
- Assessing system availability, downtime and inverter performance
- Reviewing monitoring data, electricity bills and tariff assumptions
- Identifying underperformance, operational gaps and potential remedial actions
- Quantifying the financial and environmental impact of any shortfall
- Providing an independent report for asset managers, investment committees and stakeholders

The objective is to give property owners and funds a defensible view of whether their solar investments are delivering the value expected, and where further value may be recovered.

What the evaluation covers

The evaluation provides an independent review and compares actual operating results with the original technical and financial expectations, identifies material performance gaps, and highlights practical next steps.

Review area	Output
Performance comparison	Actual generation, availability and downtime versus design or sales forecasts.
Data and financial review	Monitoring data, electricity bills, tariffs, savings assumptions and payback expectations.
Operational indicators	Inverter output, alarms, curtailment, shading/soiling, irradiance, and maintenance history.
Findings and actions	Concise report with key variances, likely causes, commercial impact and recommended actions.

Information required

Please provide the following, where available, for the selected property or system:

- Original proposal, signed agreements, energy model, design assumptions and performance guarantee
- System size, single-line diagram, equipment schedule and commissioning and “as built” documentation
- The last 12 months of inverter or plant monitoring data, preferably 30-minute or hourly
- Monthly utility bills and tariff information for the same period
- Maintenance, fault, alarm, cleaning and outage records, installer reports for validation, and any other supporting documentation
- Evaluation boundary: property, system, and review period

Fee and deliverable

A fee of R7,900 ex vat includes the following:

Fixed evaluation	Included
Included	• 5 hours of assessment, including the below • Review and comprehensive analysis of supplied information • Clarification calls where required – to client and to service providers where applicable • Concise findings report including the commercial impact and recommended actions

Other services can be found at: <https://alcap.co.za/services-solutions/>