PVOP

FREE-ACCESS SIMULATION TOOL

DE-RISK YOUR PV DESIGN FROM DAY ONE

SHORT DESCRIPTION

The Free-Access Simulation Tool is a specialized, high-accuracy design platform built to eliminate the uncertainties of PV project planning — especially on sloped or irregular terrains. Unlike generic software, it's tailored to account for real-world complexity like shading, bifacial modules, and local climate conditions. For PMs, it accelerates the design process while increasing layout precision. For FRs, it provides trusted performance projections to support confident investment decisions. And for O&M managers, it helps pre-empt issues before they impact long-term yield — all without licensing fees or barriers to access.

EXPECTED IMPROVEMENTS

- Up to **1.5% variance** between simulated and actual production, well below industry norms
- Increased energy yield through **terrain-optimized layouts** and shade-aware designs
- Improved financing outcomes via **bankable, data-backed production forecasts**
- Streamlined pre-construction workflows — **fewer redesigns, faster approvals**
- Enables **standardized simulation across portfolios**, enhancing internal benchmarking

MAIN BENEFITS

For Project Managers:

- **Eliminate trial-and-error in design — get it right the first time**
- **Speed up technical validation and reduce reliance on external consultants**
- **Confidently design on sloped, shaded, or irregular terrains**

For Financial Responsibles:

- **Access reliable performance estimates to back ROI models**
- **Reduce project risk and uncertainty for investors and lenders**
- **Improve project bankability without incurring new software costs**

For O&M Managers:

- **Better anticipate site-specific performance risks and soiling impact**
- **Use the model as a baseline for future loss analysis and maintenance targeting**

USE CASES

A **PM** designing a solar park on hilly terrain runs multiple layout scenarios with the tool. The algorithm suggests an orientation shift and spacing adjustment that boosts yield by 3.5% — avoiding expensive redesigns later.

An **FR** preparing investor materials uses the tool's validated simulations to generate 20-year output projections, including degradation trends and real climate data. The result? Lower uncertainty in LCOE and faster funding approval.

An **O&M team** compares live plant data with the tool's original predictions. An unexplained underperformance prompts a targeted inspection, revealing localized shading issues missed in prior assessments.

Book your personalized discovery call here

PVOP