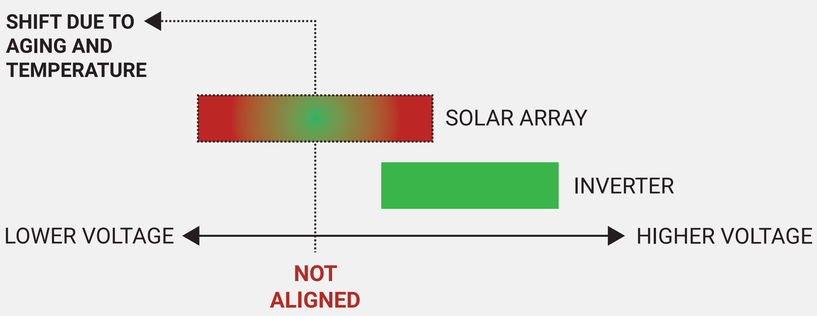
Looking for higher returns and lower maintenance cost?

Say hello to **BOOST**

Solarlytics has identified three main contributors to site underperformance and created BOOST to directly address them.

⊗ Voltage collapse

This is a condition that occurs when the solar array peak power voltage becomes mis-aligned with the inverter's operating range. This is a problem as the solar array ages and especially during warm weather, as seen below.



Misaligned Solar Array and Inverter Operating Range. Aging and warm weather create a voltage misalignment resulting in a loss of energy production.

⊗ String imbalance

Central inverters produce the greatest amount of energy when all the connected strings are performing equally. When strings performance differs from each other, there is a loss of energy production. There are many sources of string imbalance, including terrain, uneven aging, uneven temperatures, and operation of mixed fields.

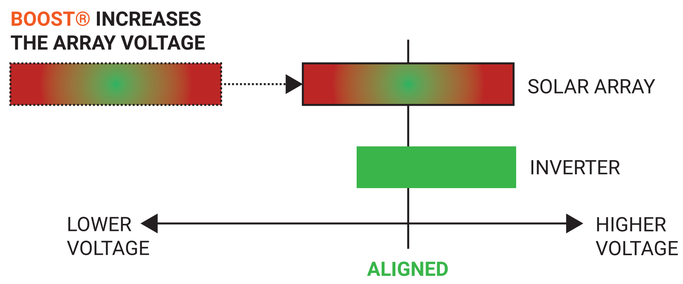
⊗ Maintenance

Normally, solar site maintenance is conducted using visual inspection or through IR sensors mounted to drones. Unfortunately, drones and simple visual inspections will not reveal significant problems like voltage collapse or string imbalance, and may not reveal all module or string failures. The performance consequences of poor maintenance can be significant, reaching 20% or more for neglected sites.

Solution

✓ BOOST solves voltage collapse

The BOOST® Platform solves voltage collapse and increases energy production by aligning the solar array's voltage with the operating range of the inverter, as seen below.



✓ BOOST solves string imbalance

BOOST overcomes the impact of string imbalance by maximizing peak power through an MPPT dedicated to the string as opposed to a single MPPT in the central inverter common to all strings. The string's output voltage is increased to a range compatible with the inverter, and energy that would otherwise be lost is recovered.

✓ BOOST facilitates maintenance

BOOST improves maintenance by providing high temporal resolution data. Current, voltage, power, energy, and temperature are passed to the Solarlytics Cloud every 30 seconds. The data is aggregated and enables O&M to spot problems that are not apparent from visual inspections using drones or other means.

BOOST Benefit

- **3-10%** yield increase
- **Eliminates** voltage collapse
- **30%** less maintenance cost with real-time string level monitoring
- **40%** savings and easy replacement of aging inverters

Solarlytics

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