



Data driven diagnostics

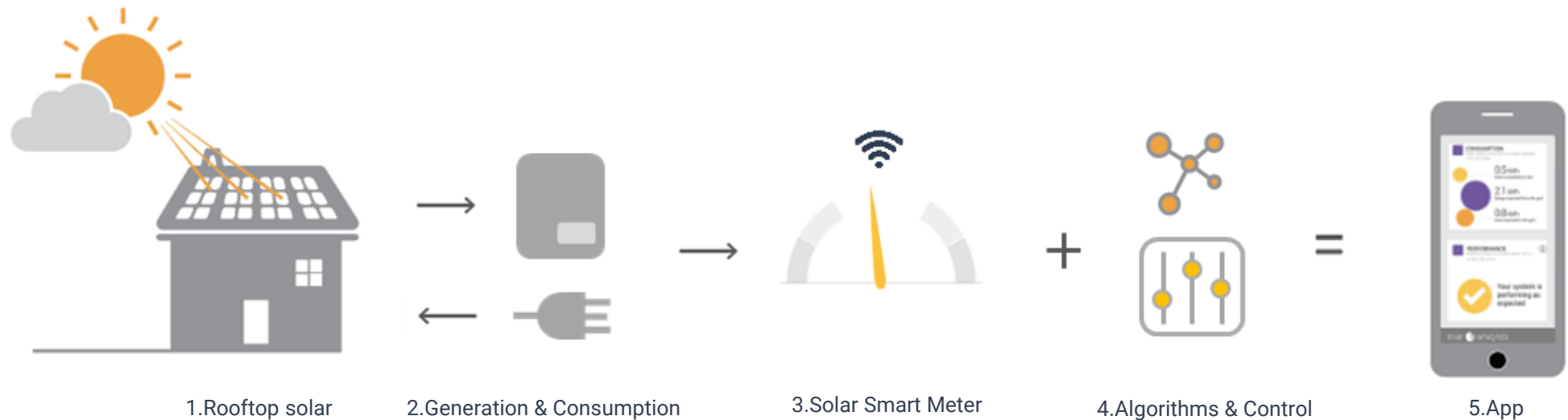
Introduction

- More than 44,000 sites
- Genuine solar veterans
- 20+ years R&D
- 10x growth per annum
- 38 staff and 9PhDs
- 4 countries
- 900 Resellers
- 1 Wholesaler
- 4 energy utilities
- 2 university partnerships
- 1 amazing team

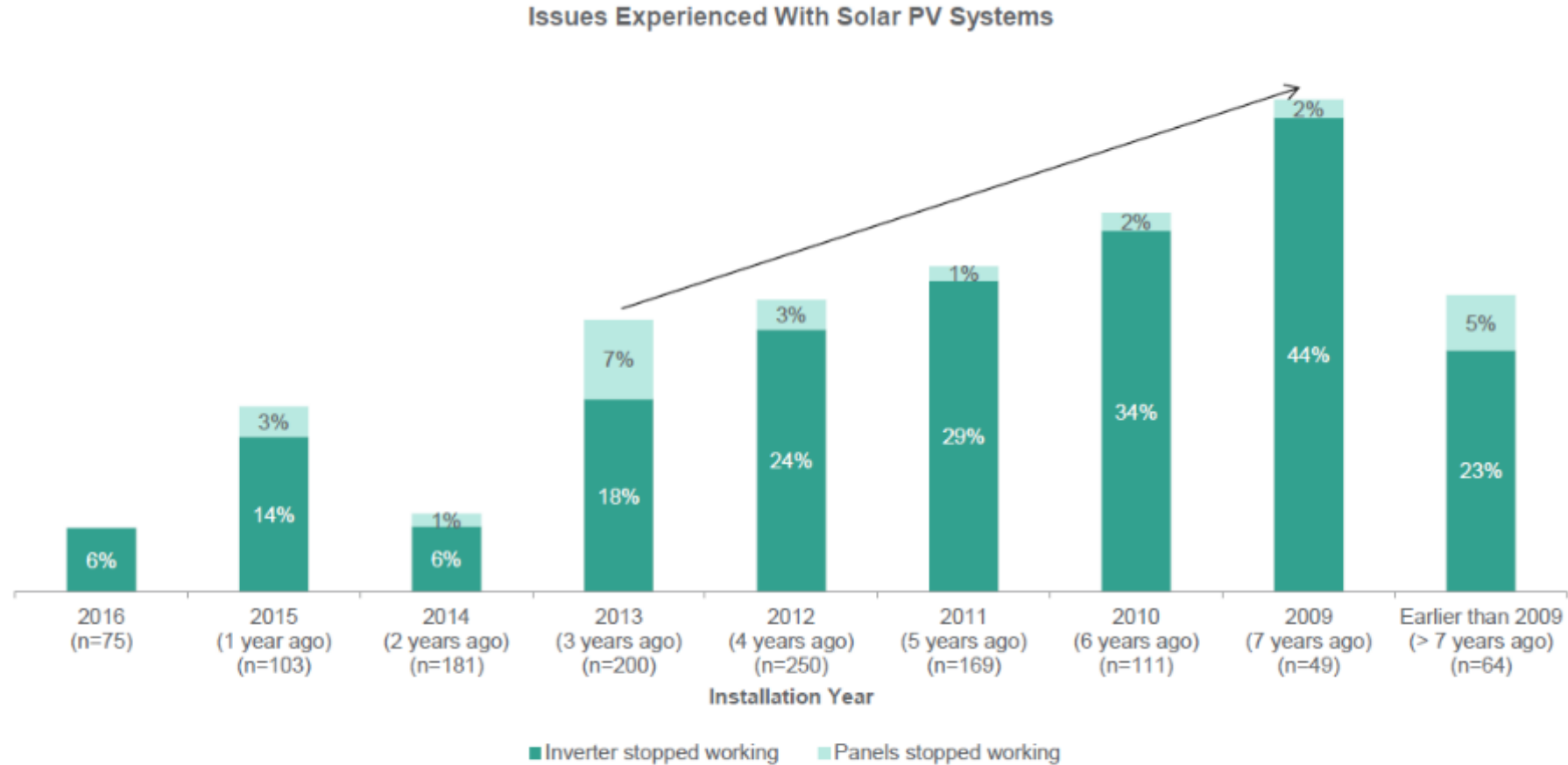


Monitoring solutions

- Via our highly flexible 4G hardware
- Via inverter modbus to 4G
- Via inverter wireless to API
- Via NMI meter modbus to 4G or API



No one expects things to go wrong, but....

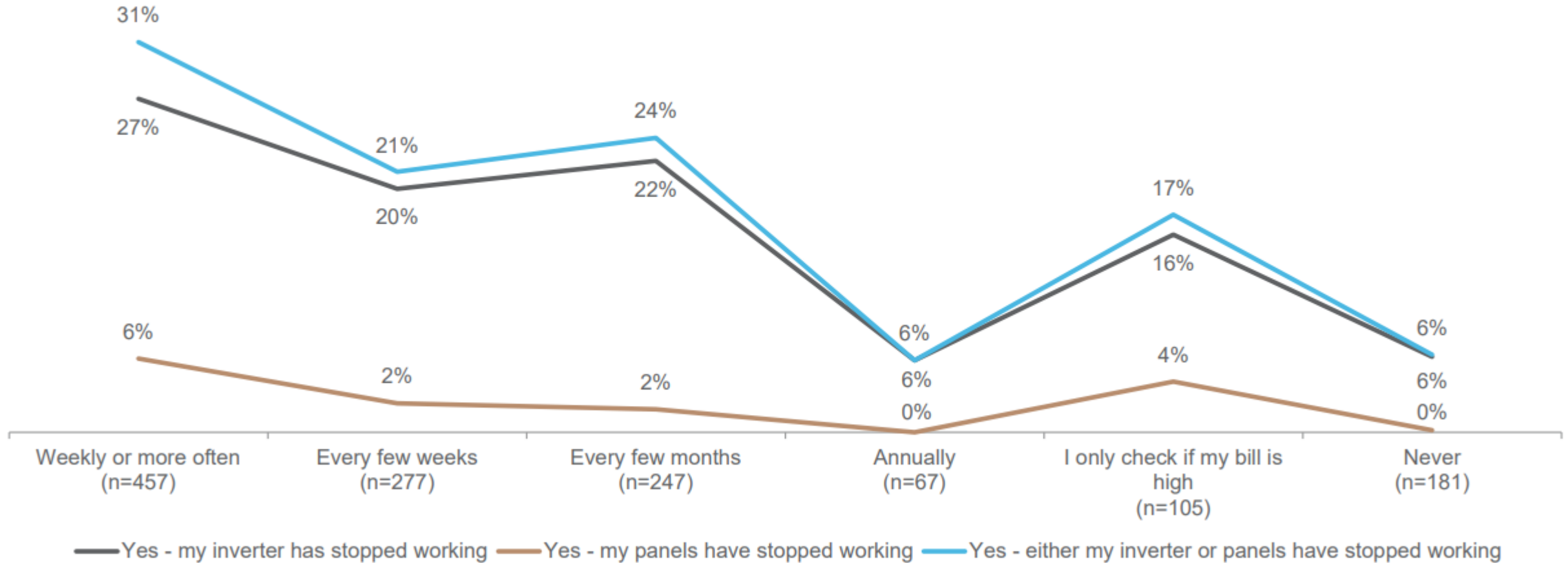


Q58. Has your solar PV system ever stopped working and required repairs or replacement? Base: Solar PV households

colmar brunton.

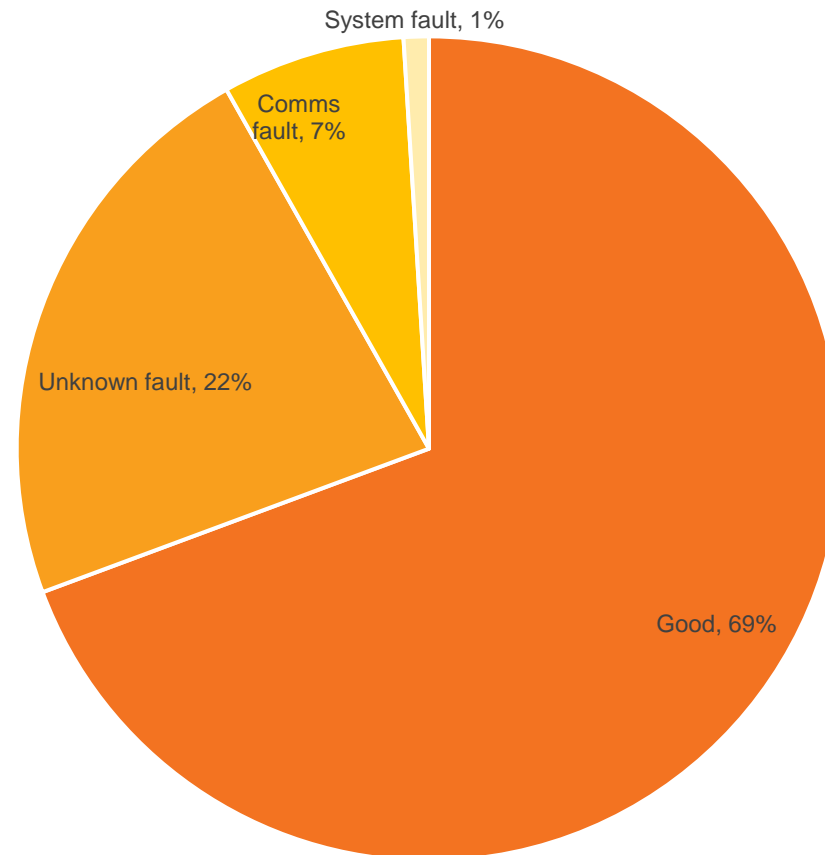
No one expects things to go wrong, but....

Problems With Solar PV Systems & Frequency Of Checking System



Within our fleet....

Overview of system status





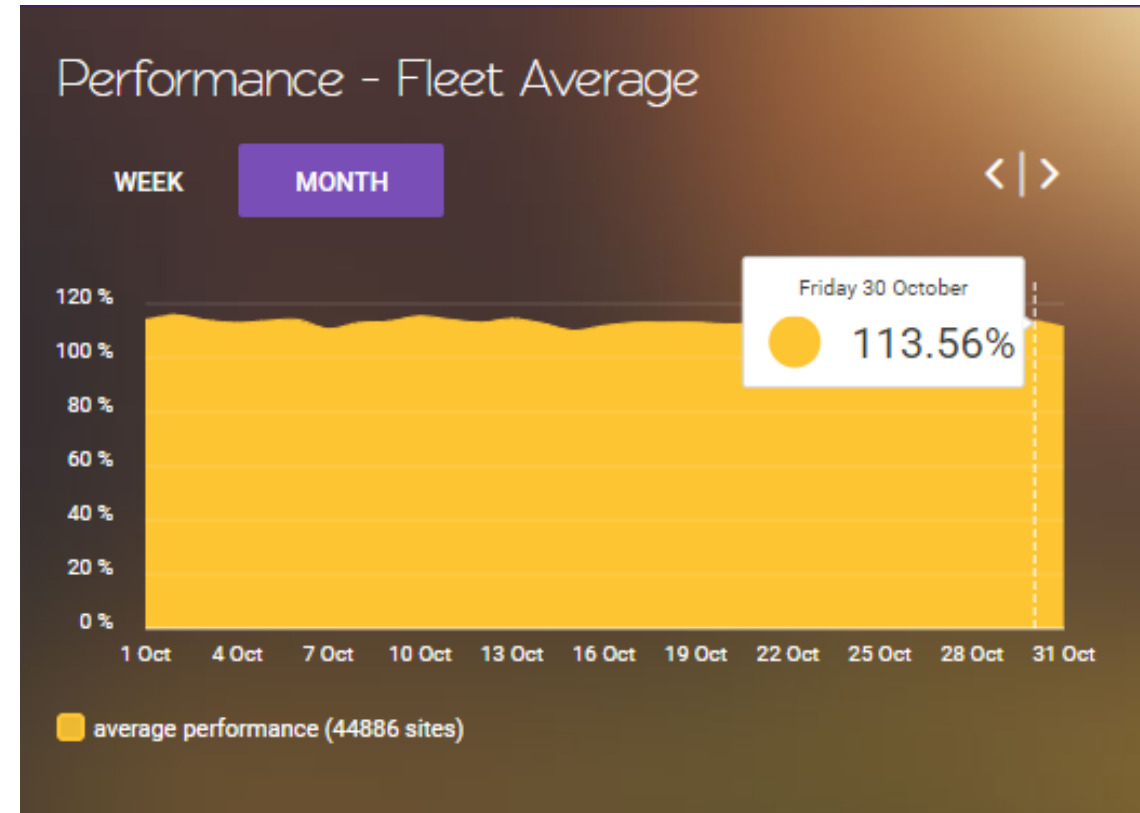
98.7%

19

AO pts

Using data for warranty

- is it really a problem?
- how do I get evidence?
- how big is the problem?



Dive deeper

- severity rating
- performance or fault
- dynamic

The screenshot displays the 'Alerts' section of the Solar Analytics dashboard. On the left is a navigation sidebar with categories like DASHBOARD, TOOLS, and SETTINGS. The main content area is titled 'Alerts' and includes a search bar and a table of alerts. The table has columns for 'ALERT STATUS', 'ALERT', 'NAME', 'ADDRESS', 'STATE', 'SIZE', 'KW', and 'CLR'. Alerts are color-coded by severity: red for 'ATTENTION REQUIRED', yellow for 'INVESTIGATE', orange for 'CHECK DEVICE', and purple for 'CHECK CONFIG'. A detailed view of a 'CRACK' alert is shown below the table, including a 'FAULT DIAGNOSIS' section with a 'CRACK' description and an 'ACTION REQUIRED' section with a 'SOLAR RETAILER' recommendation. A 'SITE DETAILS' sidebar on the right provides contact information for the site.

ALERT STATUS	ALERT	NAME	ADDRESS	STATE	SIZE	KW	CLR
ATTENTION REQUIRED	CRACK PRODUCTION ACTIVE (100%)	Sarah Smith	123 Smith Road, Strathfield, 2222 NSW	NSW	0.5KW	KR-63	L Intake
ATTENTION REQUIRED	2% INVERTER PERFORMANCE ACTIVE (100%)	Sarah Smith	123 Smith Road, Strathfield, 2222 NSW	NSW	0.5KW	KR-63	L Intake
INVESTIGATE	2% INVERTER PERFORMANCE ACTIVE (100%)	Sarah Smith	123 Smith Road, Strathfield, 2222 NSW	NSW	0.5KW	KR-63	L Intake
CHECK DEVICE	NO DATA RECEIVED ACTIVE (100%)	Sarah Smith	123 Smith Road, Strathfield, 2222 NSW	NSW	0.5KW	KR-63	L Intake
WATCH	NO DATA RECEIVED ACTIVE (100%)	Sarah Smith	123 Smith Road, Strathfield, 2222 NSW	NSW	0.5KW	KR-63	L Intake
WATCH	NO DATA RECEIVED ACTIVE (100%)	Sarah Smith	123 Smith Road, Strathfield, 2222 NSW	NSW	0.5KW	KR-63	L Intake
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WATCH	NO DATA RECEIVED ACTIVE (100%)	Sarah Smith	123 Smith Road, Strathfield, 2222 NSW	NSW	0.5KW	KR-63	L Intake
CHECK CONFIG	INCORRECT CONFIGURATION ACTIVE (100%)	Sarah Smith	123 Smith Road, Strathfield, 2222 NSW	NSW	0.5KW	KR-63	L Intake
CHECK CONFIG	INCORRECT CONFIGURATION ACTIVE (100%)	Sarah Smith	123 Smith Road, Strathfield, 2222 NSW	NSW	0.5KW	KR-63	L Intake
CHECK CONFIG	INCORRECT CONFIGURATION ACTIVE (100%)	Sarah Smith	123 Smith Road, Strathfield, 2222 NSW	NSW	0.5KW	KR-63	L Intake

FAULT DIAGNOSIS
CRACK
Under-panel issues is caused by either an issue with the solar system or a manufacturing defect.
IMPACT: If unresolved this will result reduced power production and reduced system savings.
[See available details for this issue](#)

ACTION REQUIRED
SOLAR RETAILER: Service expectations is recommended to resolve this issue.
EXTERNAL COVER: The owner has been notified. An action is required from the owner at this stage.
[See how to resolve this issue?](#)

SITE DETAILS
CONTACT NAME: Prudence Richardson
Firstname: Prudence
Phone: 0412045608
Email: aedc@solartek.com.au
[GO TO DASHBOARD](#)

Performance

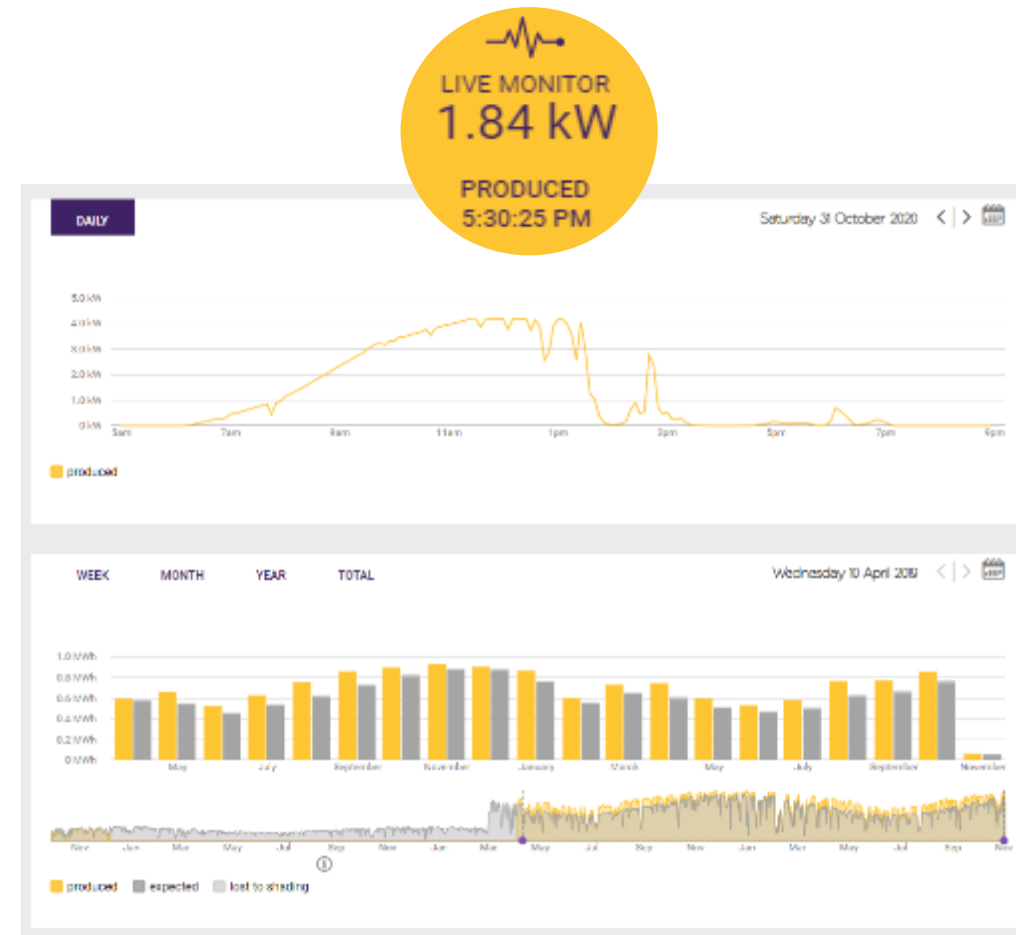
- what is normal?
- more than twenty key variables
- complex sum with algorithmic smoothing



Performance is within normal range

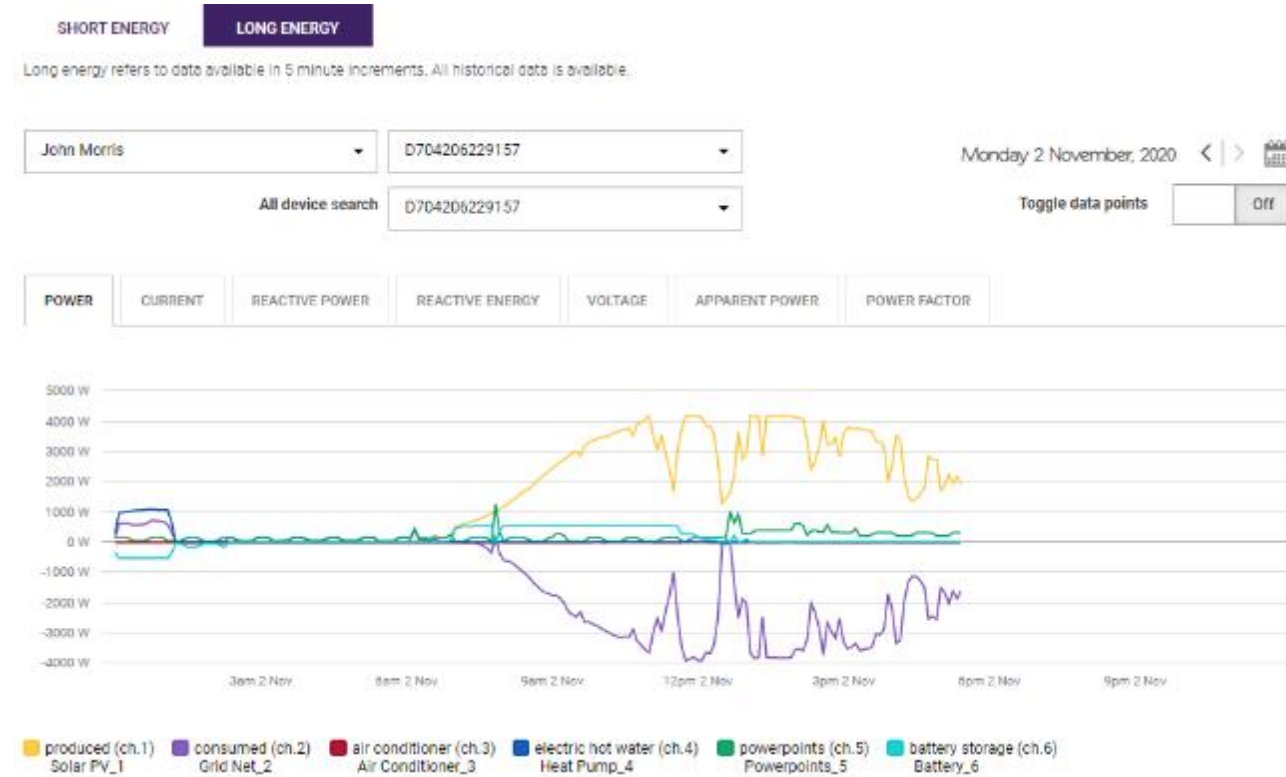
Trends

- long term trends improve reliability
- site specifics come into play
- data granularity matters



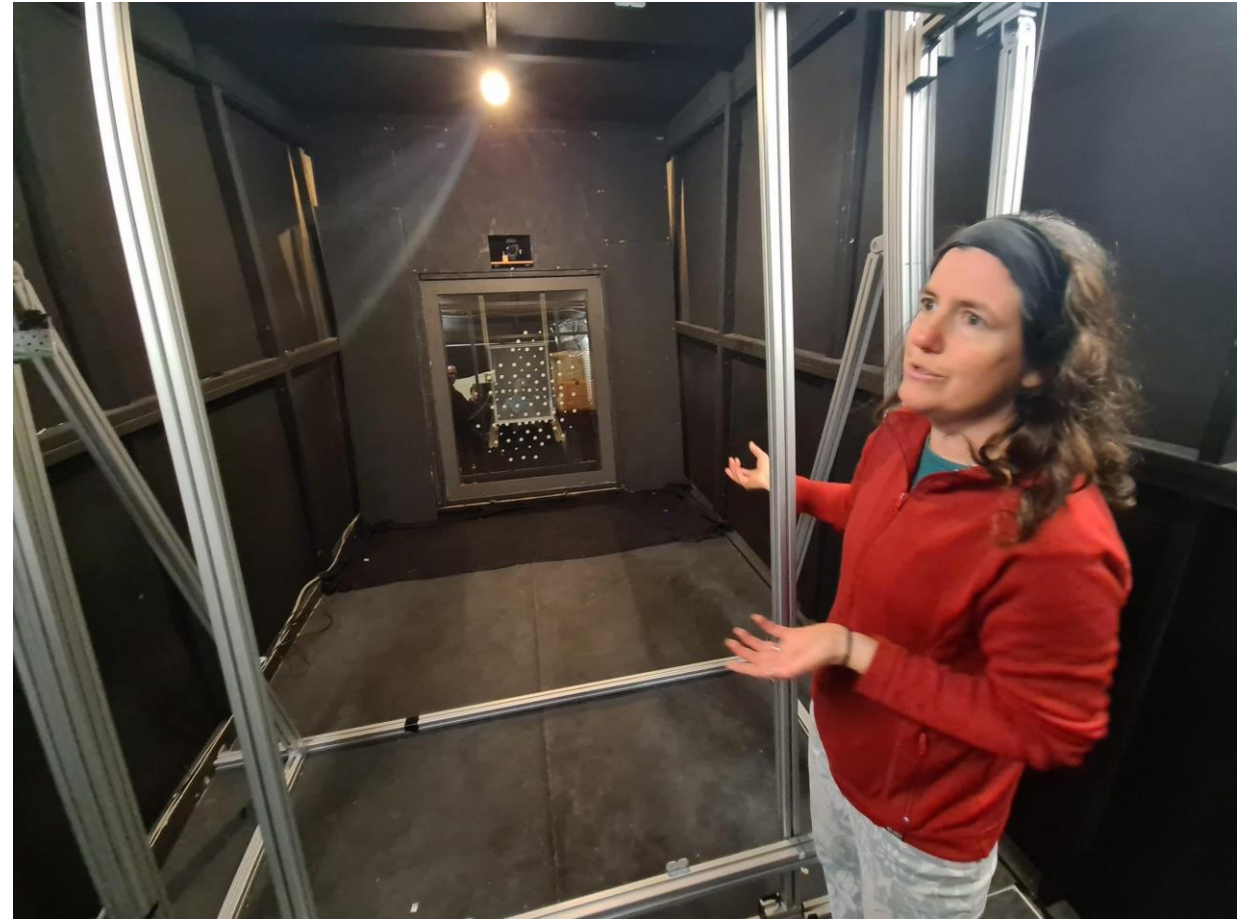
Tools

- circuit level monitoring
- 5SecondLive
- rule causes in or out



Testing solar modules

- equipment tolerances
- equipment accuracy & calibration
- external factors





solar  analytics

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