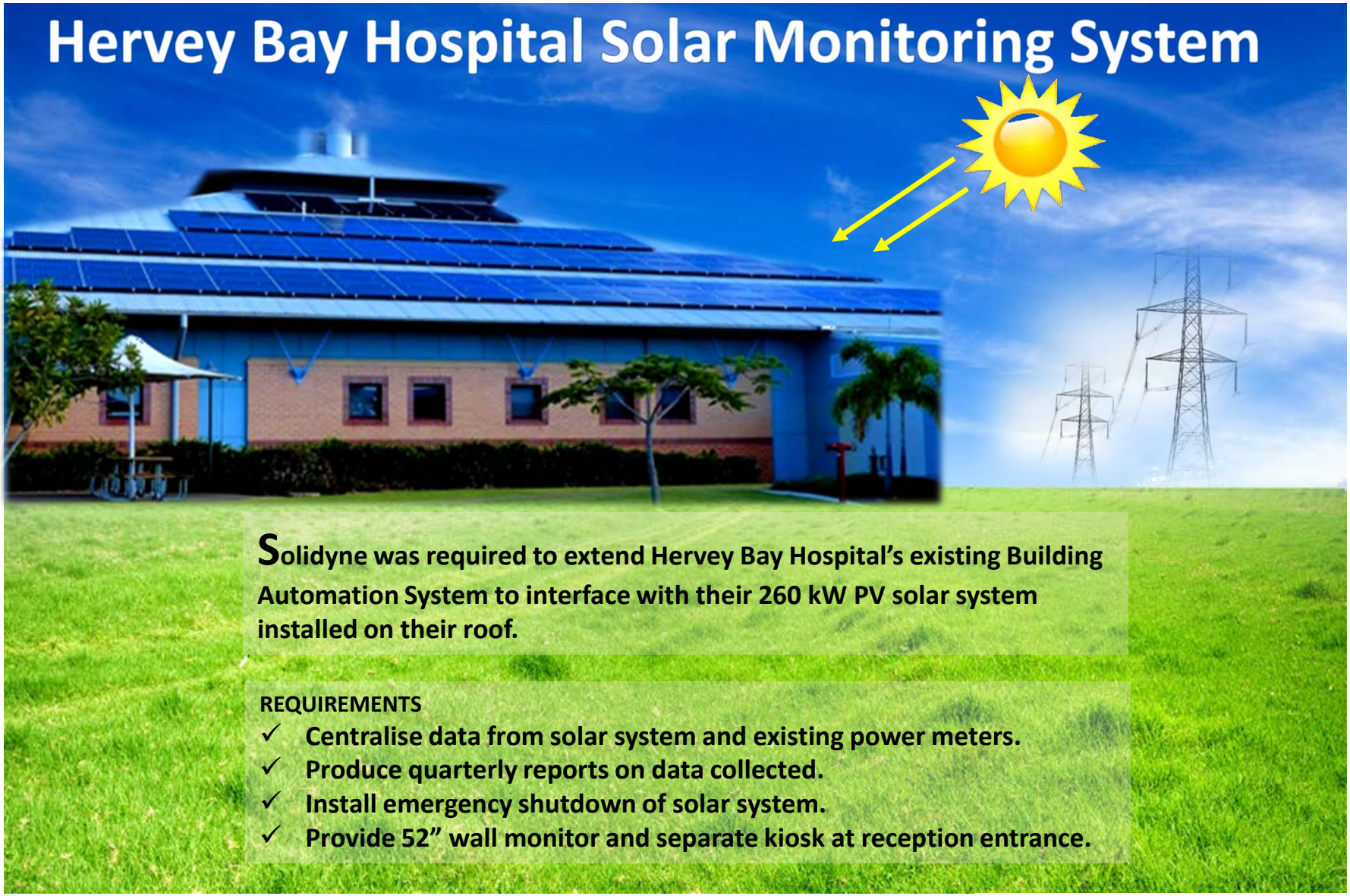
Hervey Bay Hospital Solar Monitoring System



Solidyne was required to extend Hervey Bay Hospital's existing Building Automation System to interface with their 260 kW PV solar system installed on their roof.

REQUIREMENTS

- ✓ **Centralise data from solar system and existing power meters.**
- ✓ **Produce quarterly reports on data collected.**
- ✓ **Install emergency shutdown of solar system.**
- ✓ **Provide 52" wall monitor and separate kiosk at reception entrance.**

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Solidyne Interface Solution

260 kW Solar Farm

Mains Power

Interface Module

52” TV screen

Interactive screen.

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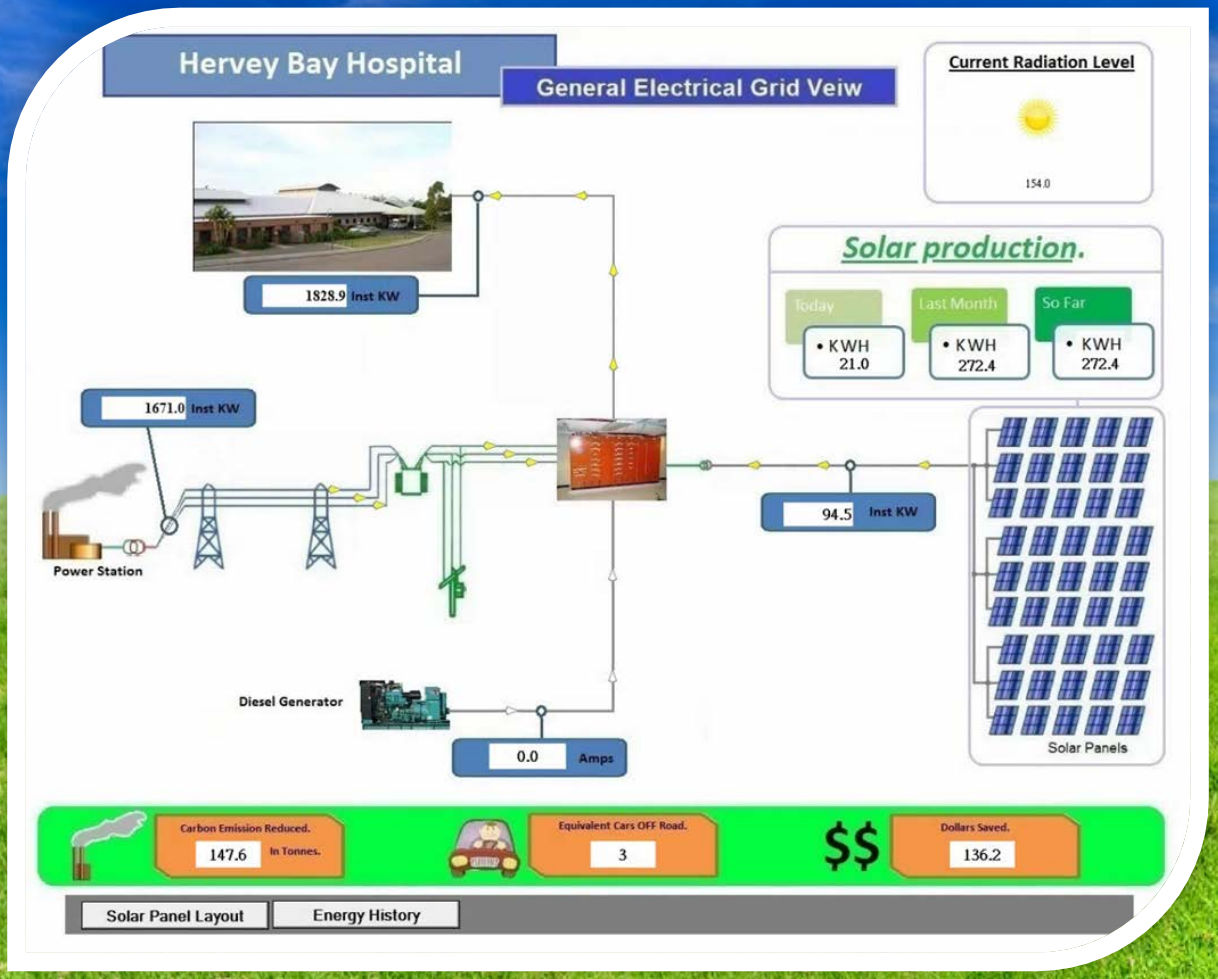
Overview of the Hospital Electrical System



The challenge on this project was to :

- Tie all the different energy systems together.
- Verify and report the solar performance day by day.
- Tabulate data and present in a simple and easy to manage profile.
- Provide the engineering staff with a simple means of viewing and control.

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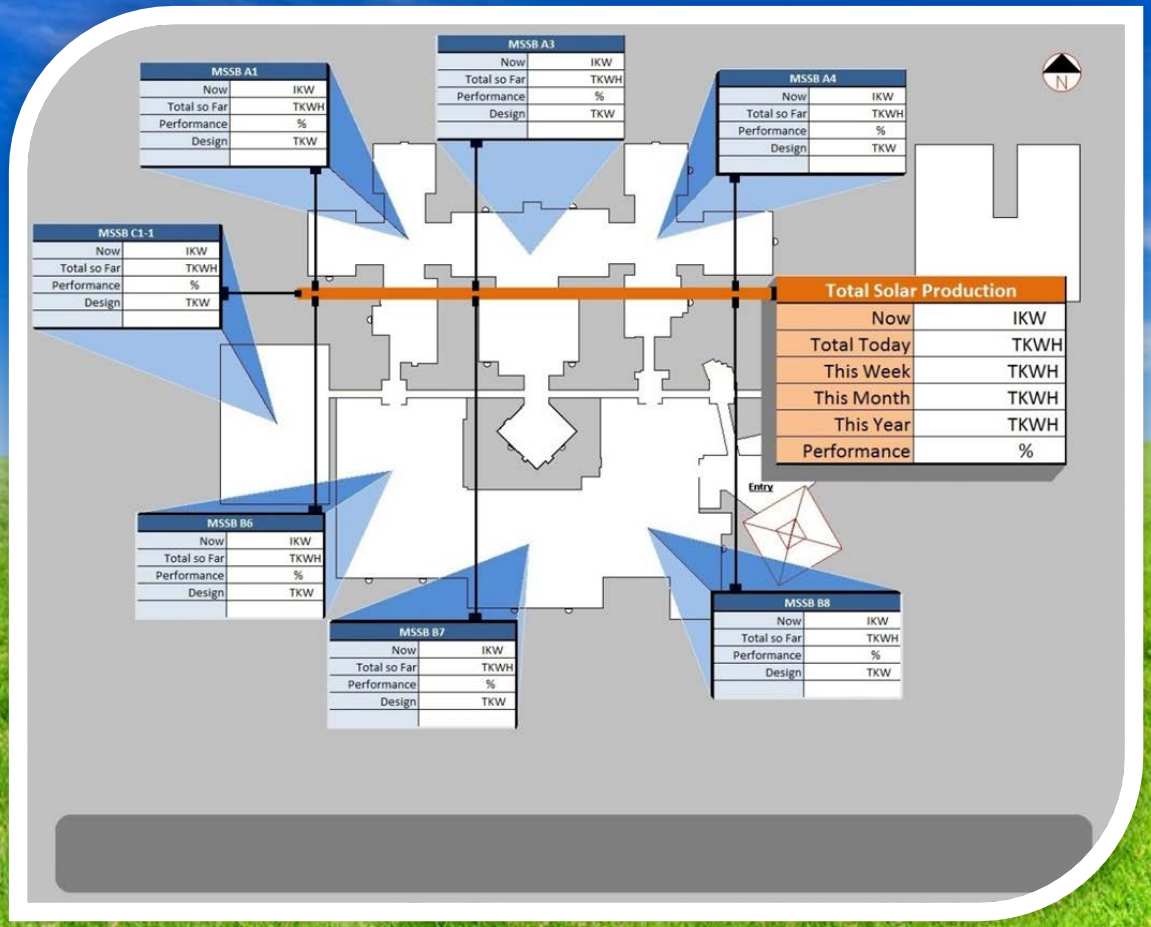
Individual Monitoring of Solar Panel Clusters



- Data collected can be displayed per individual roof .
- Animated graphics show which section of roof is actually producing energy.
- Solar output is compared minute by minute with output from similar days and calculated to give a performance indication.

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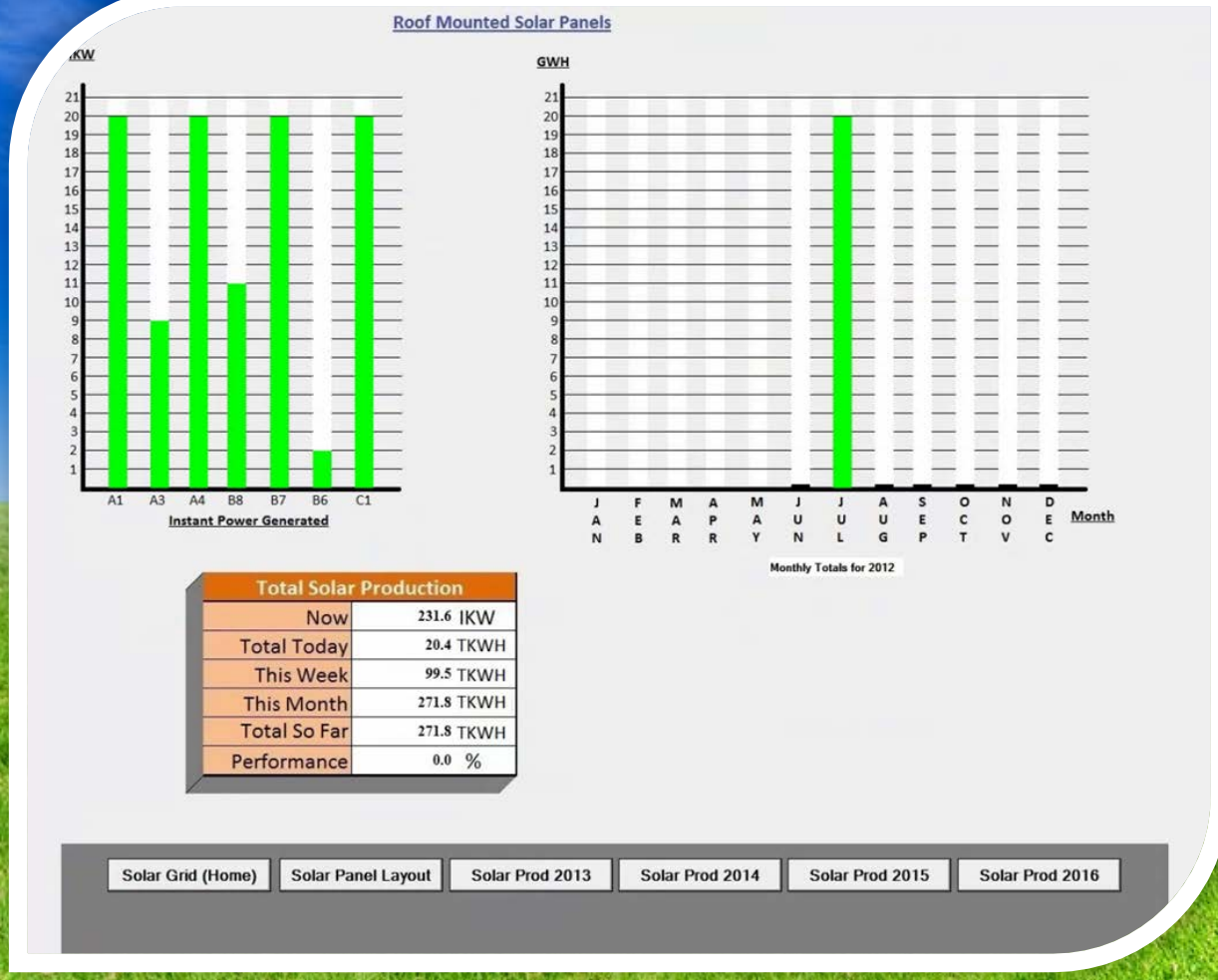
Live Graphical Data



- Data collected can be displayed on the Reception screen & Kiosk or in the Engineer's office live.
- Daily, weekly, monthly and yearly histories are stored and available to download.
- All data is scanned every few seconds for accuracy and stored onsite.

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Individual Tabulated Data per Cluster

Solar Grid (Home)

Production		
Day light available	Active	710.0
Shutdown Relay	Active	11.2
Producible Hrs	Active	701.9

Solar Production								
Area	2012	2013	2014	2015	2016	TOTAL	Predicated	$$ Saved
A1 Sugical	20888.2	0.0	0.0	0.0	0.0	20888.2	62,717	10444.1
A3 Maternity	14409.6	0.0	0.0	0.0	0.0	14409.6	39,893	7204.8
A4 Medical	29103.8	0.0	0.0	0.0	0.0	29103.8	78,793	14551.9
B8 Xray	12790.5	0.0	0.0	0.0	0.0	12790.5	35,912	6395.2
B7 ICU	16899.7	0.0	0.0	0.0	0.0	16899.6	35,912	8449.8
B6 Theatre	12708.4	0.0	0.0	0.0	0.0	12708.4	47,881	6354.2
C1 Kitchen	19582.3	0.0	0.0	0.0	0.0	19582.3	60,396	9791.1
Pathology	7467.4	0.0	0.0	0.0	0.0	7467.4	21,168	3733.7
TOTAL	133849.9	0.0	0.0	0.0	0.0	133849.8	382,671	66924.9

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