

SolarEdge SafeDC™ Eases Fire Service Safety Concerns Following Blaze at Tasmazia Complex

As a nighttime fire ripped through this popular tourist attraction, the Tasmania Fire Service (TFS) were relieved to learn how the SafeDC™ feature of the installed SolarEdge system eliminated the risk of working around damaged cables, reduced the high level DC voltage, and prevented the solar panels from re-igniting the flames at sunrise.

The fire broke out at the Tasmazia complex in the early hours of the morning, and was extinguished under the cover of darkness. Despite this, concerns remained that the blaze could re-ignite when the sun came up, as PV arrays may continue to generate dangerously high DC voltages of up to 1000V during daylight hours, even when disconnected from the grid.

SolarEdge systems have a built-in SafeDC™ safety feature that is designed to automatically reduce DC voltage to a safe level. This happens if a building is disconnected from the grid, the inverter is turned off, or a cabling fault is detected.

DMS Energy’s Adrian Luke was called to inspect the PV array, and was able to reassure the fire crew that, as the system was a SolarEdge installation, the DC wires had automatically de-energised as soon as the grid power was cut off, and the system was touch-safe.

“I arrived at the site at 5:30 in the morning just as the sun was rising, and was pleased to confirm that the SolarEdge power optimisers were doing their job. Despite the system having been damaged by the fire, exposing copper wires, all the cables had automatically de-energised and were touch-safe. When the TechSafe inspector arrived he was relieved to see it was a SolarEdge installation.”
Adrian Luke, Director of Dynamic Maintenance, DMS Energy.

As Fire Service standard practice is to shut down the electrical supply to a burning site, all SolarEdge power optimizers will output a touch-safe maximum of 1Vdc each during daylight hours. With a maximum of 39 panels per string, the SafeDC™ voltage at the Tasmazia system was limited to 39 volts, safely below the risk level. This enabled TFS firefighters to easily and safely work around the solar array.



TASMAZIA, Promised Land, Tasmania

2 x SE15K SolarEdge inverters

1 x SE3300 SolarEdge inverter

P300 SolarEdge power optimisers



Tasmazia Maze Complex

View of fire damage to the gift shop