



Zero Export Solution & D.G Protection with DelREMO V2.0

While a solar setup achieves a saving on electricity costs, given that some states where net metering is not available, the excess power into the grid need to be controlled. If this is not done, since the meter is unidirectional, the power exported to grid also adds up to the usage of customer & the amount reflecting in the electricity bill will account both import & export power. So, the customer is forced to pay for the exported power.

On sites with diesel generators, a second type of issue is faced; If the solar generation exceeds a certain amount, it will damage the generator & the generator will get tripped if reverse power relay is used, causing a power outage to the loads connected.

To Overcome the above problems, **DelREMO V2.0** can be used.

DelREMO V2.0 - Zero Export Solution to Grid & Reverse Power Control to Diesel Generators (DG) actively modulates the solar inverters even under rapidly fluctuating loads and varying solar output to ensure that the solar power is always maintained just below the consumption level and tripping is avoided.

The Power Control function can be used in two scenarios:

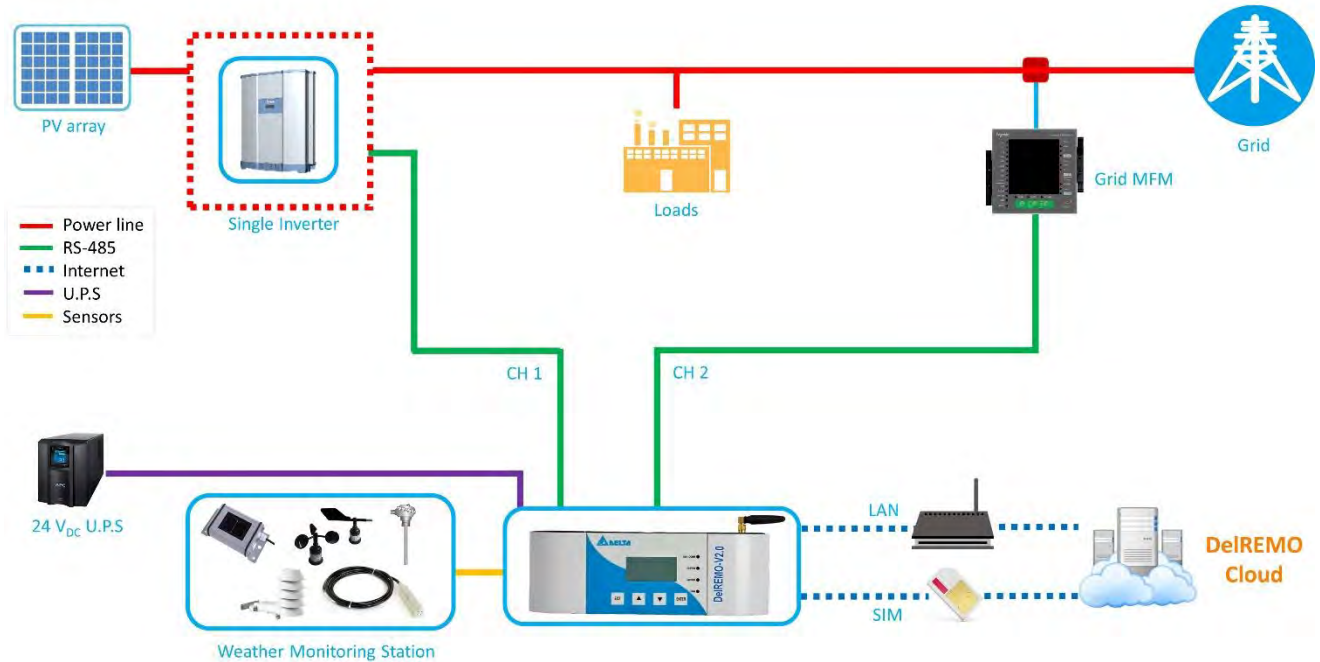
Zero Feed-In: Dynamically reduce the output from inverters to limit Active power for captive consumption, and enforce zero export of energy.

Diesel Generator Protection: Control the active power from the inverters and optimize the energy output to protect Diesel generators from reverse power.

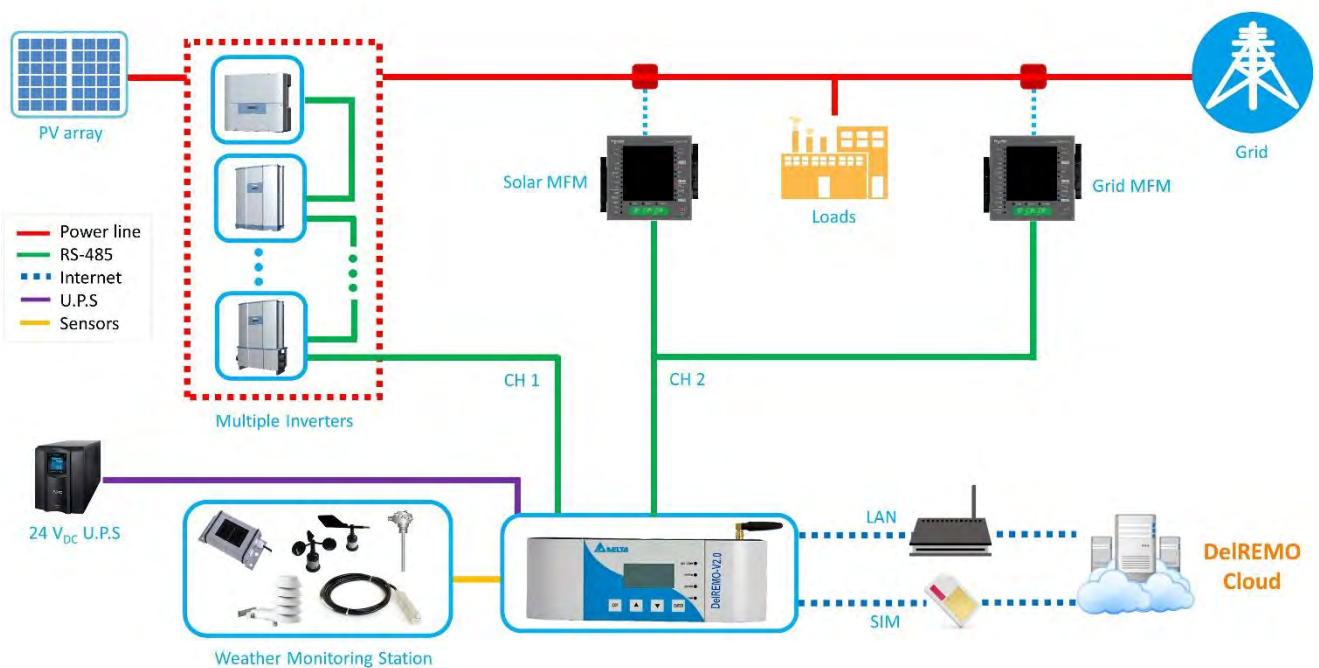
The algorithm works by polling available Multi-Function Meters to determine the current generation / load. Based on the number of inverters and inverter capacity it calculates the optimal power level for each inverter in real time. This ensures that reverse feed in to a diesel generator is prevented.

Please refer below system architecture for some of different cases that DelREMO can work with.

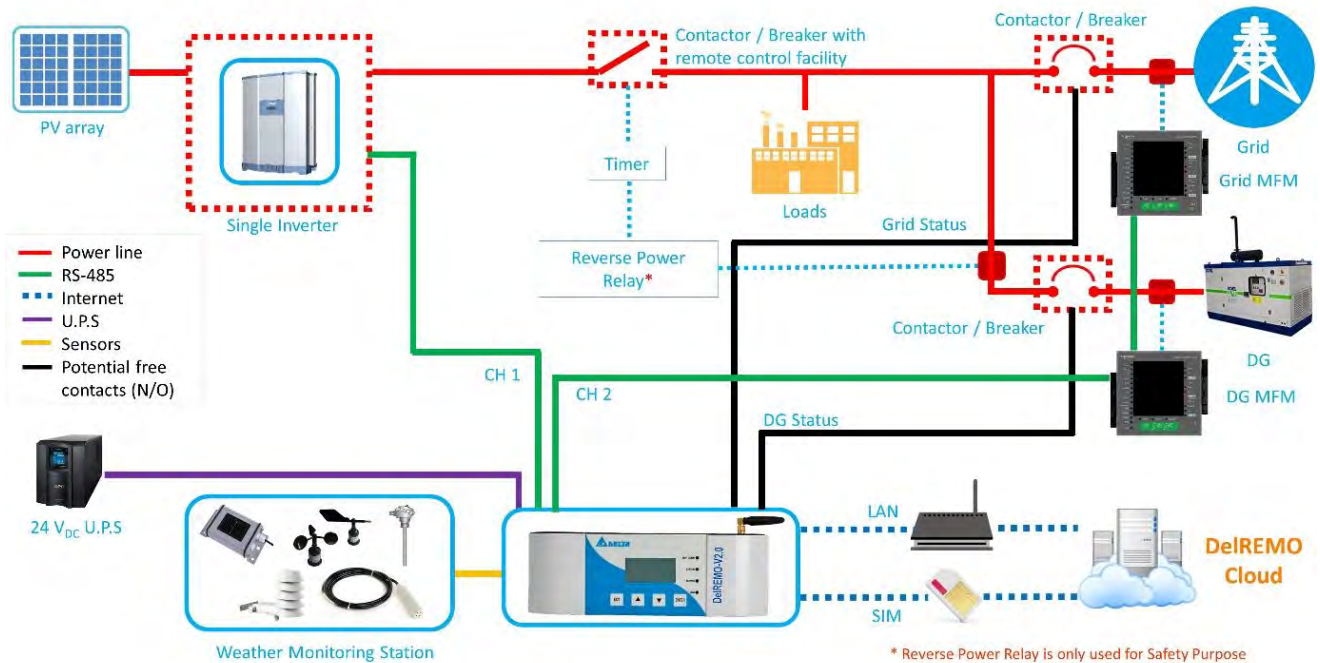
Case 1: Monitoring + Zero Export with Single Inverter



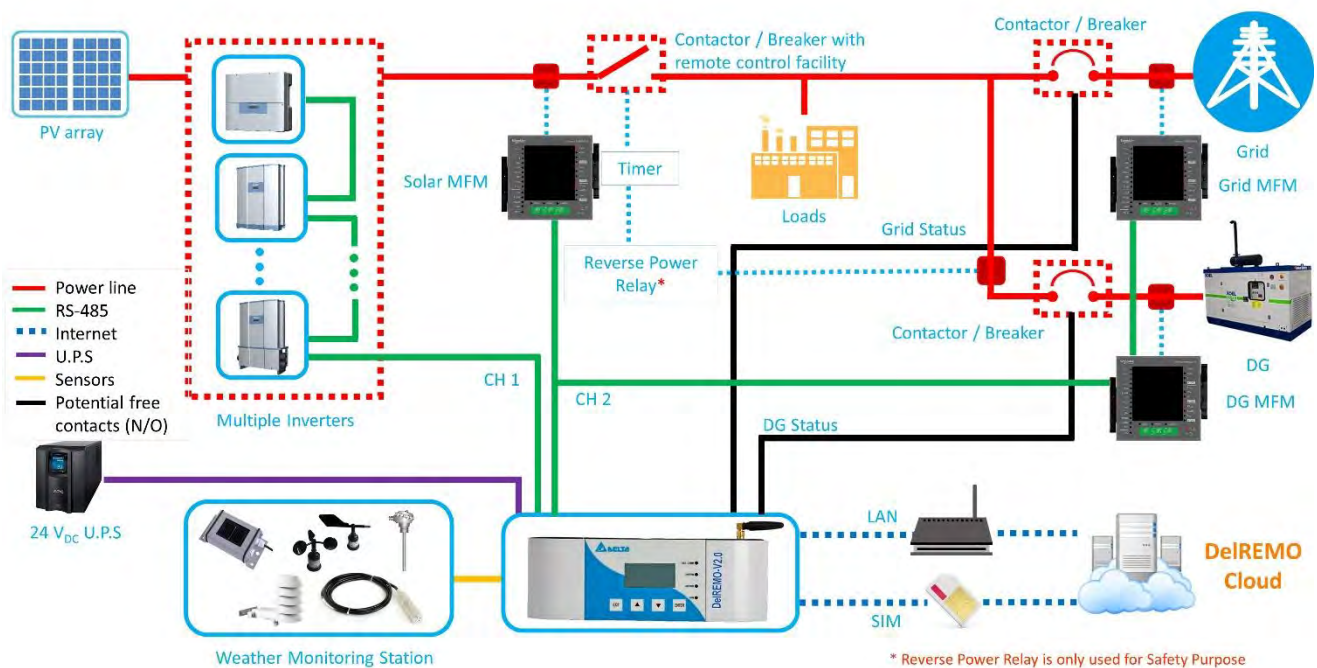
Case 2: Monitoring + Zero Export with Multiple Inverters



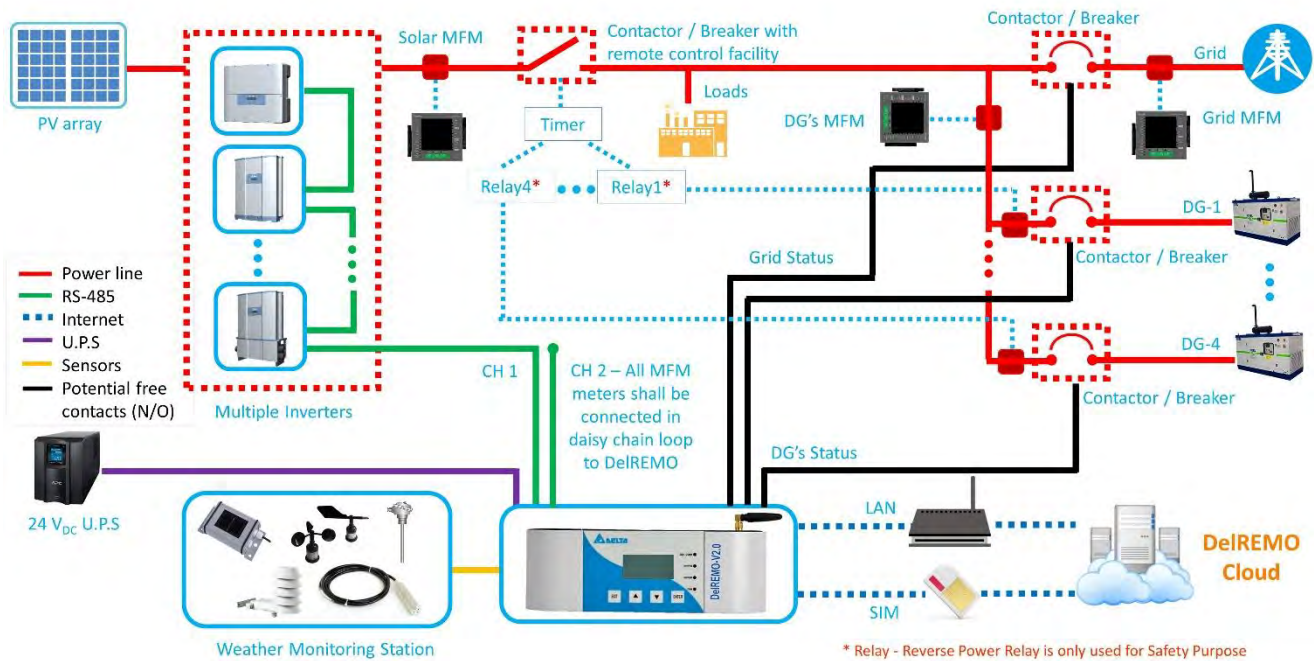
Case 3: Monitoring + Zero Export + DG Protection with Single Inverter



Case 4: Monitoring + Zero Export + DG Protection with Multiple Inverters & Single DG



Case 5: Monitoring + Zero Export + DG Protection with Multiple Inverters & Multiple DGs



Case 6: Monitoring + Zero Export + DG Protection with Single Inverter & Multiple DGs

