## Generation Switch Modifications for type 2 meters

A 'type 2 meter' is one on which the LED flashes whenever power is imported and the LED stays permanently on whenever power is exported. Read the <u>introduction</u> describing the meter types before reading this document.

The Simple Generation Switch has a Reset input which is connected to 5V via resistor R4. To reset the monostable (U2) the Reset input needs to be pulled down to 0V. The modification to the circuit consists of removing the connection between resistor R4 and the 5V track and connecting the resistor instead to the 0V track. A solder pin is placed on the 5V track where the resistor R4 used to be soldered. With just R4 connected between the reset and 0V, the monostable will be permanently reset because the reset pin is at 0V.

A phototransistor (identical to the one used to detect the Generation Meter LED) is connected between the Reset solder pin and the new 5V solder pin. Whilst exporting power, the LED on the import meter is permanently on and the phototransistor will detect the light from the LED and connect the Reset pin to 5V.

Whenever the LED on the Import Meter flashes on and off (electricity is being imported) the phototransistor will detect the absence of light and the monostable will be reset. Modification details shown in blue below.

