

Robust and reliable general management tool for performance and durability improvement of fuel cell stationary unit



D6.1

SUN HW add-on specifications

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This deliverable is dedicated to the identification of the hardware specifications for the device that will be realized to inject the sinusoids and the pseudo random binary sequence into the SUNFIRE stack to perform the EIS measurement. This device has to be connected between the stack and the inverter that interfaces the actual SUNFIRE system with a three phase grid. Thus, it has to effectively inject the stimulating signals into the stack and, at the same time, it does not have to perturb the regular behavior of the inverter. This new device must be also interfaced, through a suitable digital communication channel, with the MDPC board that is in charge of synchronizing the injection of the perturbing signals with the acquisition of the voltage and current signals at the stack terminals. The specifications will be transferred to the third party that will be in charge of engineering and realizing this new device.

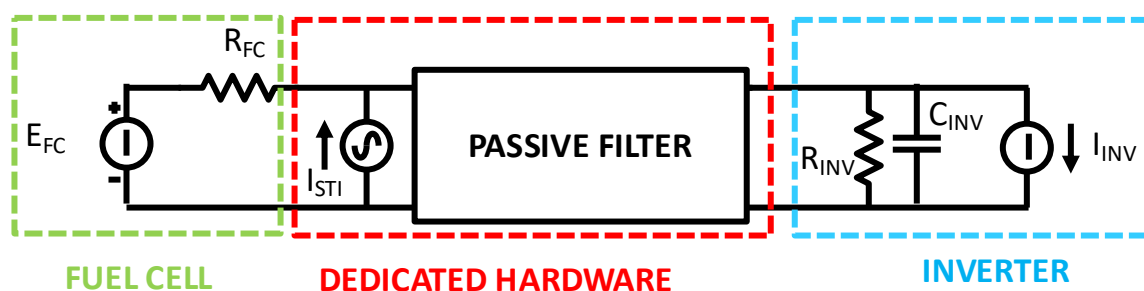


Figure 1: principle of operation of the additional hardware for the SUNFIRE system.