



**Ciências  
ULisboa**

**Engenharia Geográfica,  
Geofísica e Energia**

# SEMINÁRIO

5.<sup>a</sup> Feira 23 de fevereiro, 12h00 – 13h00 Sala C8.2.47

## The real world of Photovoltaics

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Since there's approximately 1.2 billion people living off the grid in underdeveloped regions in which every year 4 million people die prematurely from illness attributable to the household air pollution, Solar Photovoltaic shall be mainstreamed throughout affordable solutions. Photovoltaics are playing crucial roles for the sustainable development of societies and economies from "Pico-Solar" (small 10's W off-grid products), to the largest utility PV plant of 1 GW (in Ningxia, China). The success on the deployment of PV plants depends largely on the quality and reliability of the products – System Failures & Quality Assurance (taking into account that PV modules weight around 60% of the total cost of an installation).

By 2013, Solar PV accounted with around 140 GW of accumulated capacity worldwide. Within the last three years, this capacity more than doubled (today, 300 GW). This huge and exponential growth sets new challenges in terms of demand and response on the electrical grid. A new era of energy (renewable) has just started – the digitalization of energy.

