

الدورة 12

مؤتمر تحلية المياه في الدول العربية

19-18 شعبان 1440 | 24-23 ابريل 2019

فندق انتركونتinentال سيتي ستارز، القاهرة، جمهورية مصر العربية



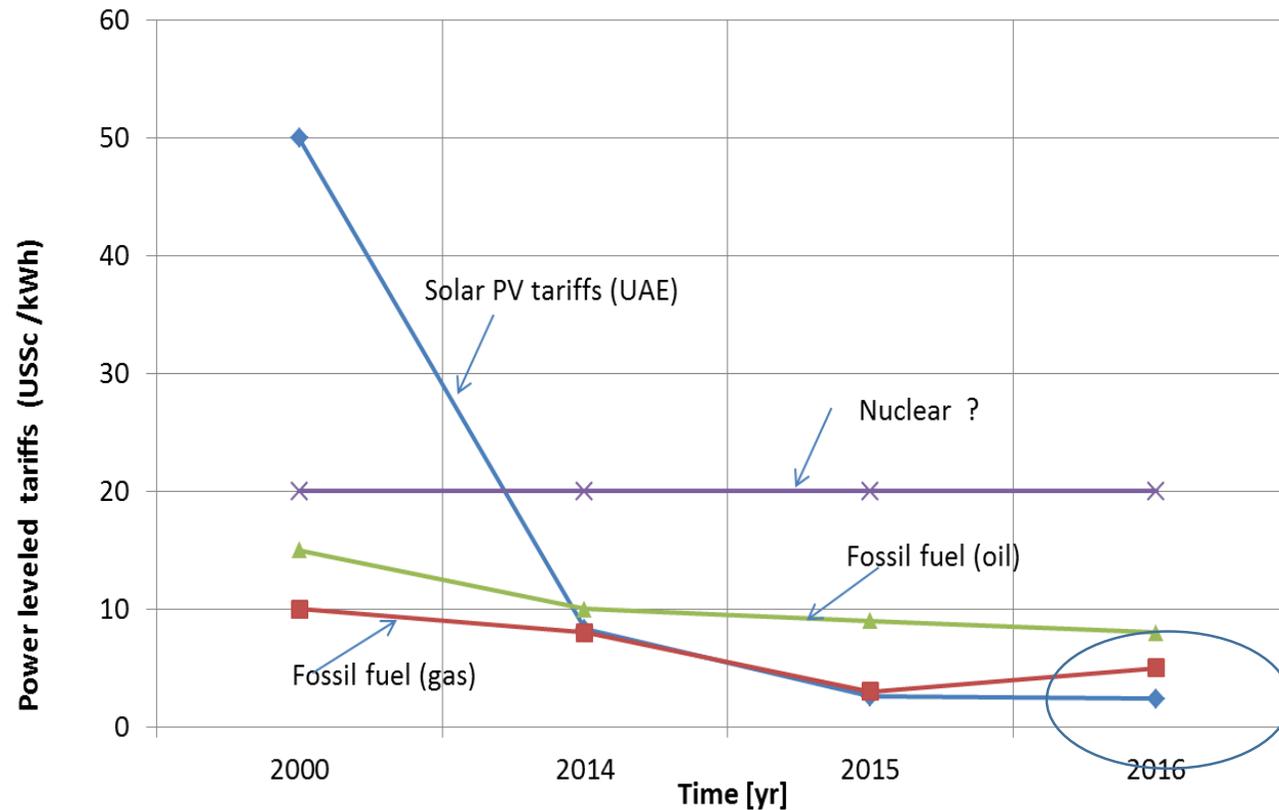
The Economics of Sustainability: the only way forward also for the desalination and water industr

Dr. Corrado Sommariva



CEO SWPC
President IDA 2012-2015

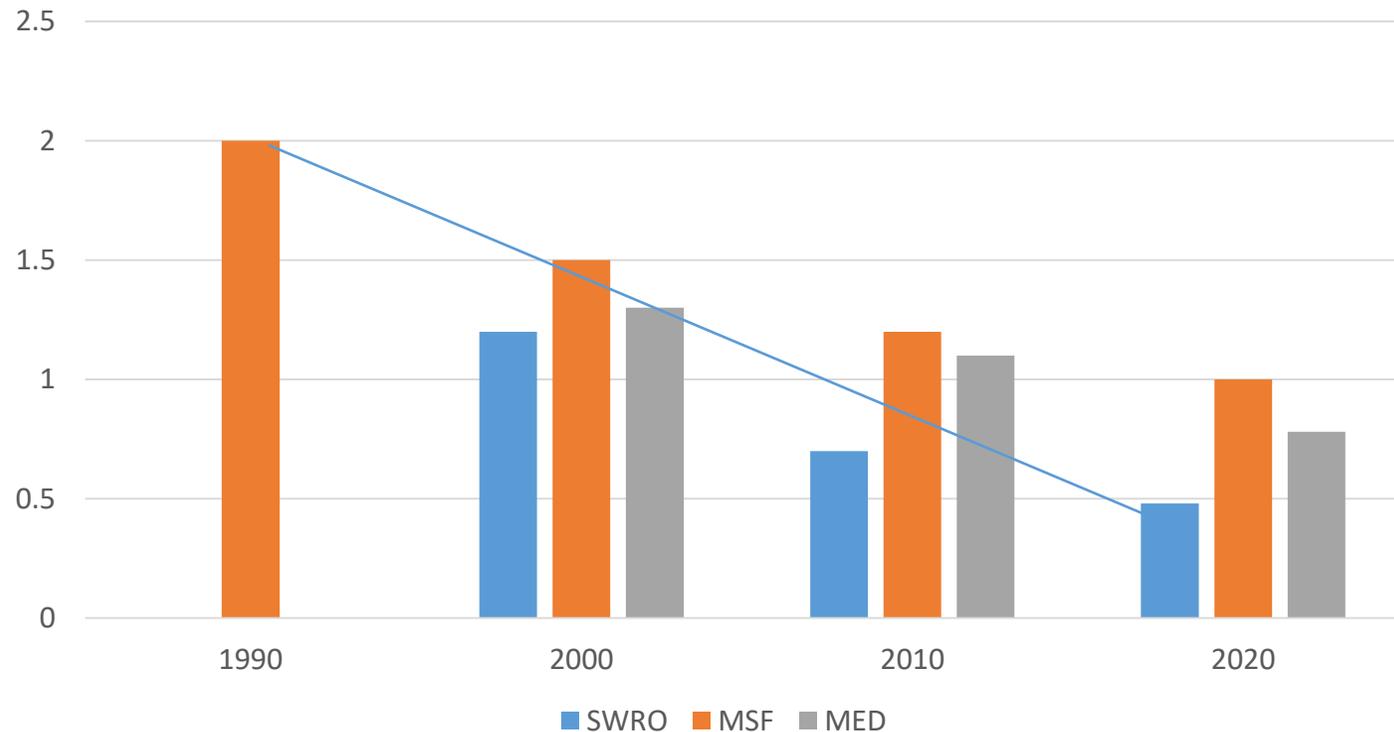
Changing technology scenarios



A technical solution that would appear more convenient initially may become financially disadvantageous or perhaps even non sustainable in the long run compared to a technology initially perhaps more expensive but definitely more efficient (indicated in the graph as the red line) .

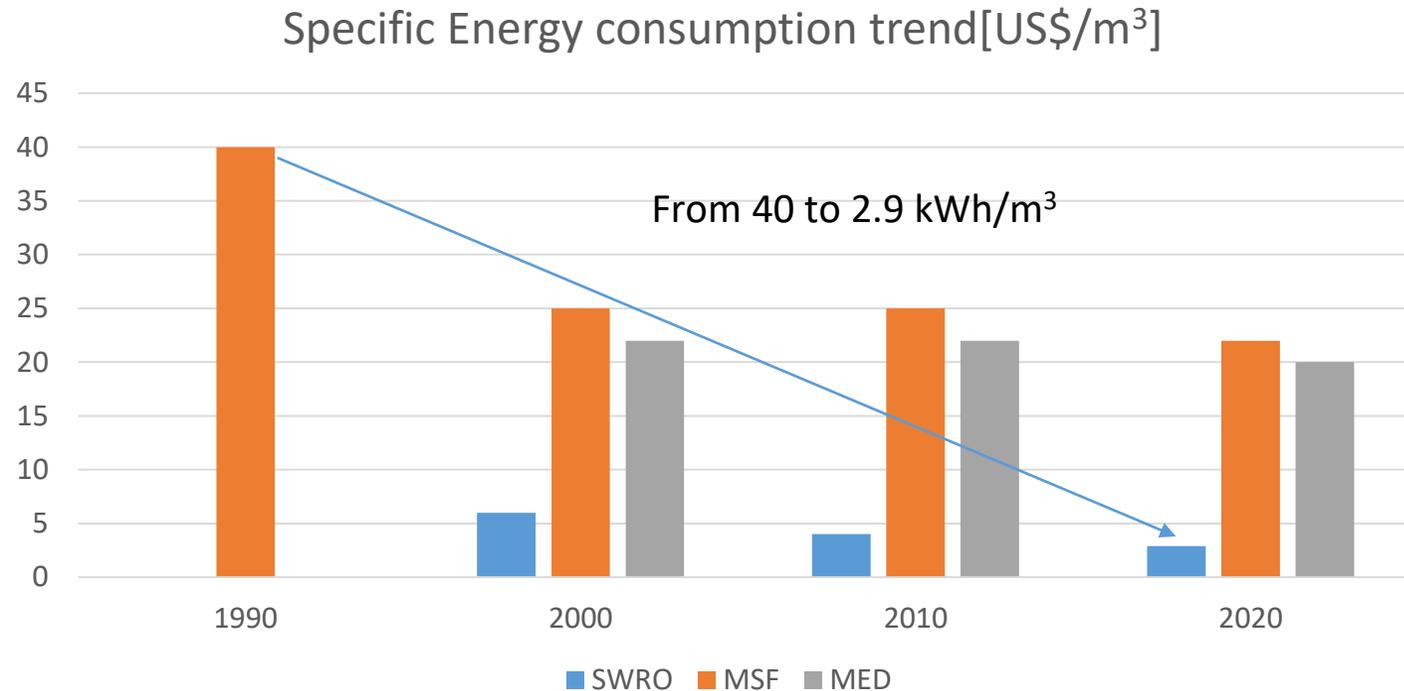
Changing technology scenarios

Water price versus technology [US\$/m³]



The same applies to the water industry. What happened between March to October 2018 changed forever the water industry

Changing technology scenarios



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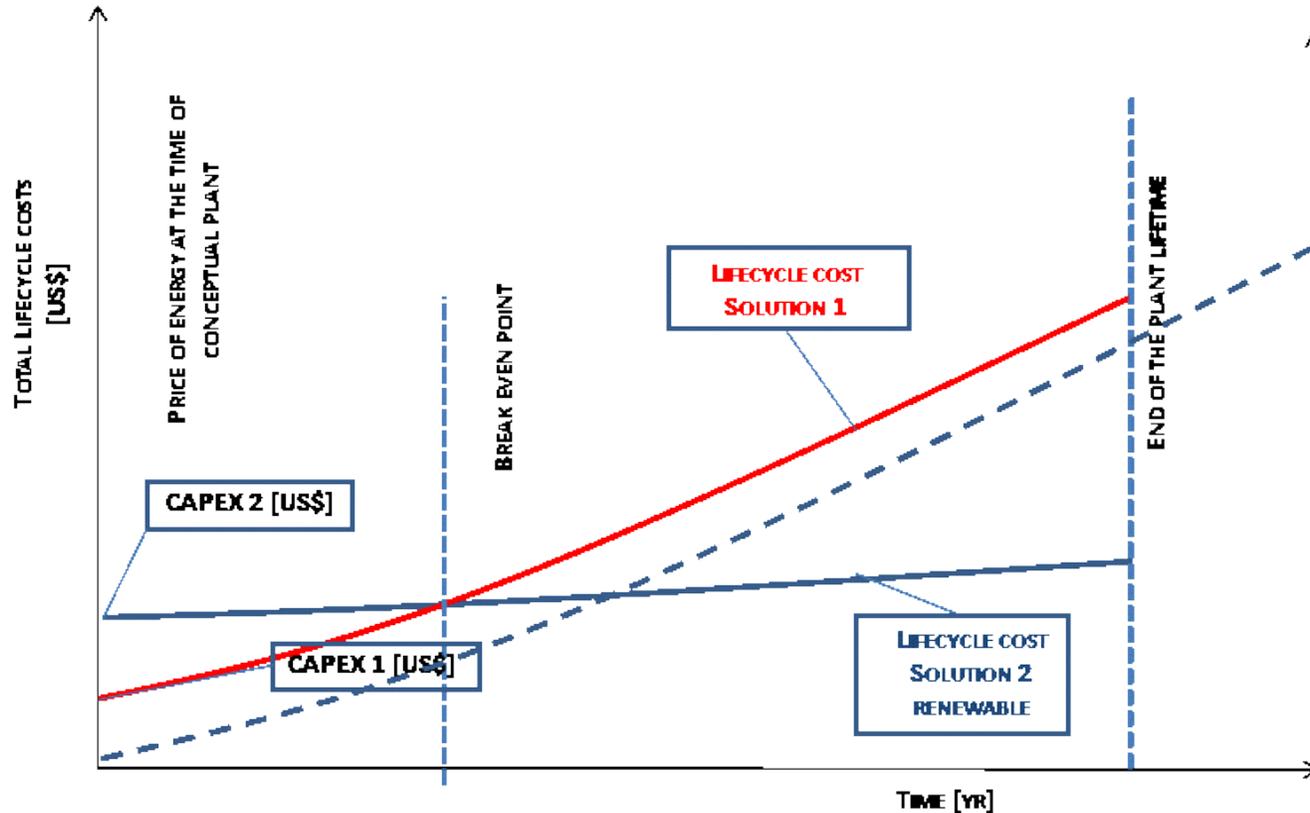
Energy price changing trends



Oil price historical trend

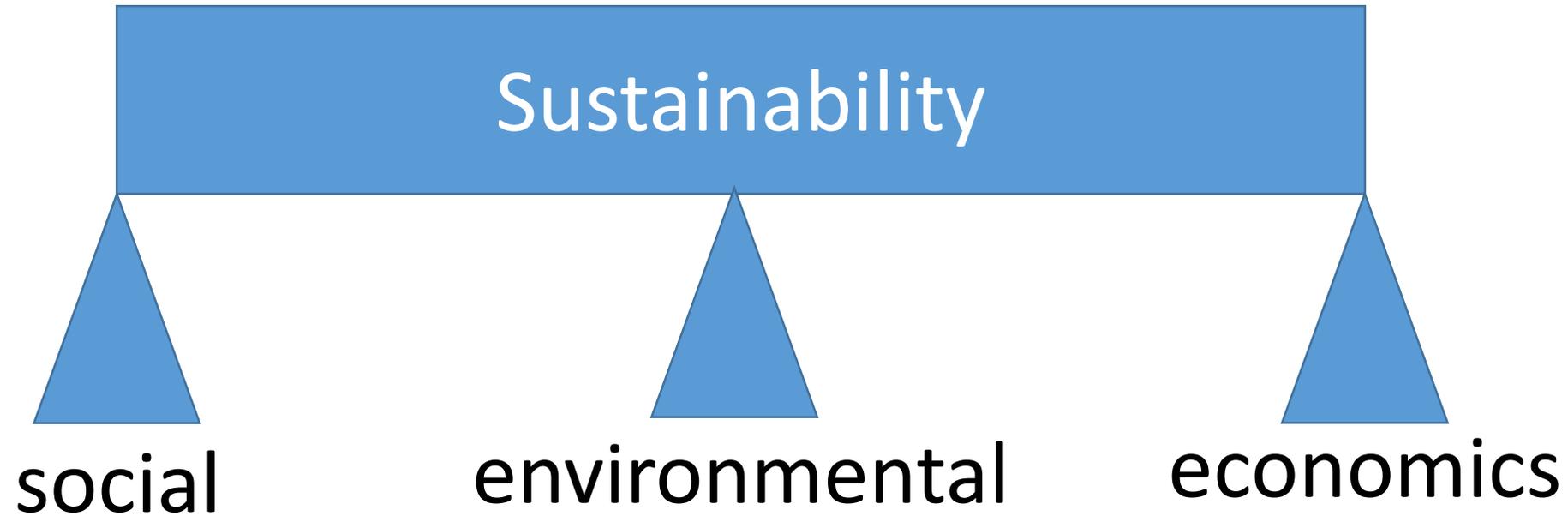
There may be seasonal fluctuations but price of non renewable resources will unavoidably tend to increase

New P&L scenarios as energy costs varies



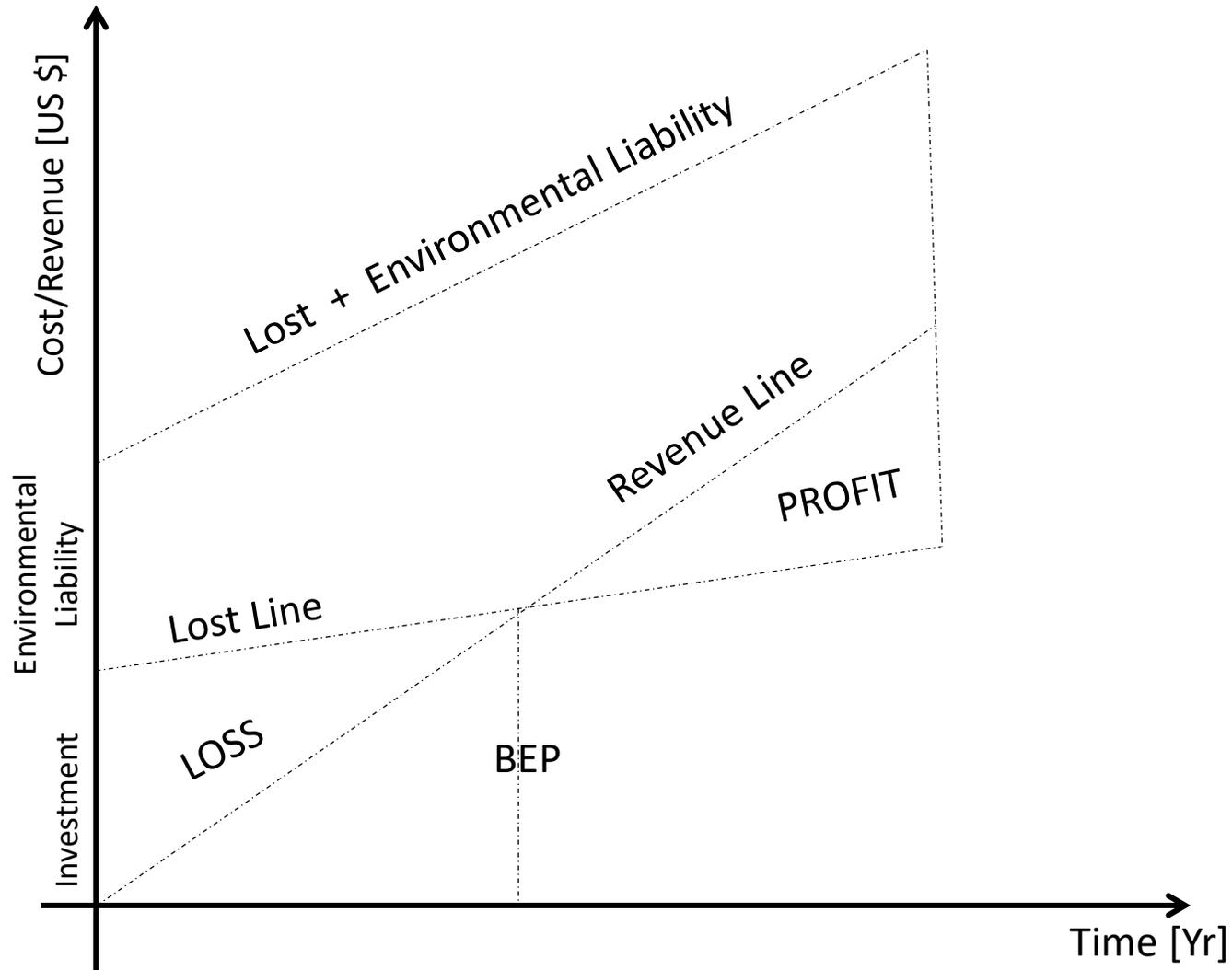
Therefore what may look as a cheaper solution (red line) at the beginning may end up being an extremely expensive one at the end of its lifecycle compared to a initially more efficient and more sustainable one (blue line)

The three pillars are really three ?

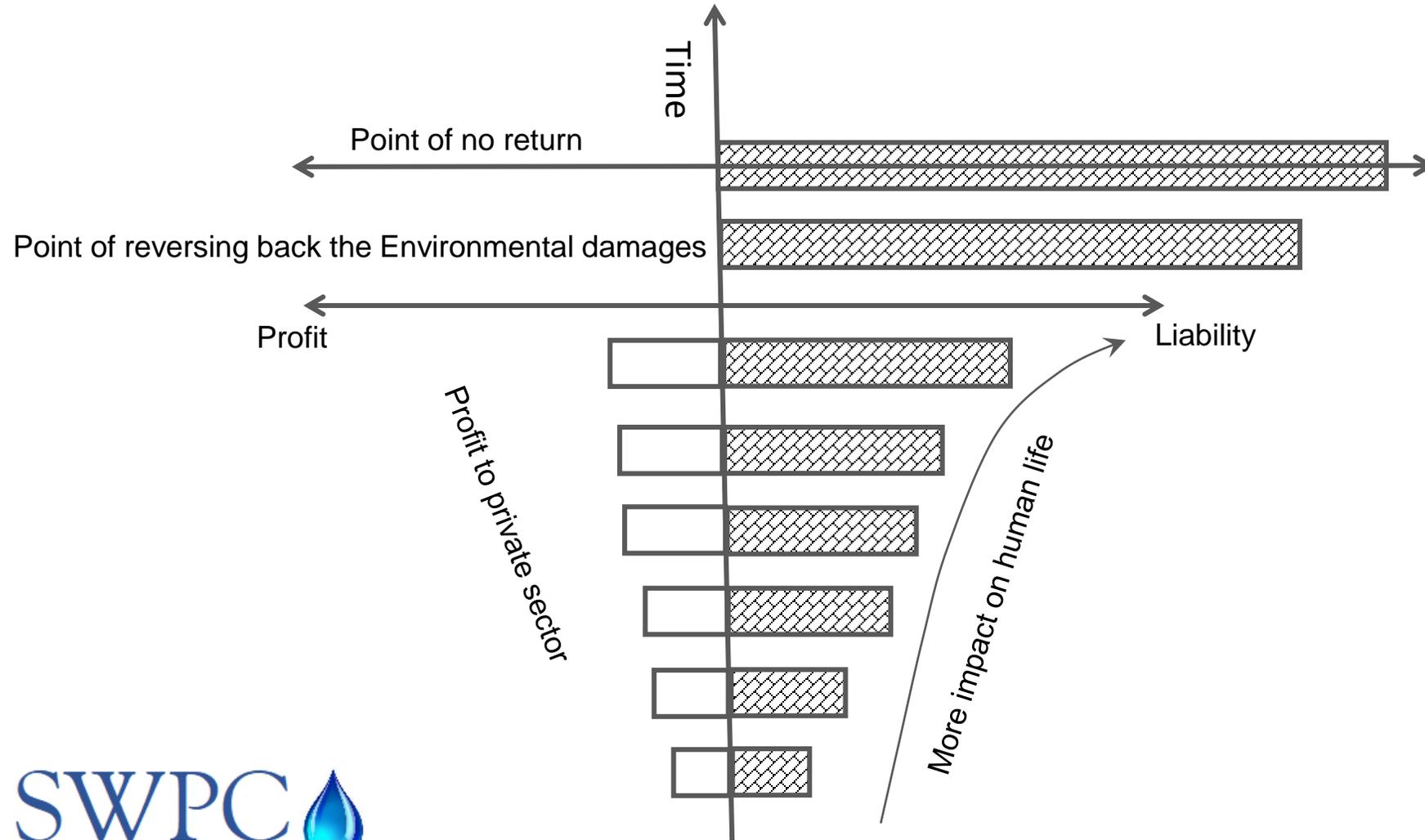


Public and social costs for increase healthcare and emergency crises arising from droughts, typhoons, etc. deriving from our non sustainability are left to others to be paid, particularly new generations.

Sustainability if all liabilities are considered

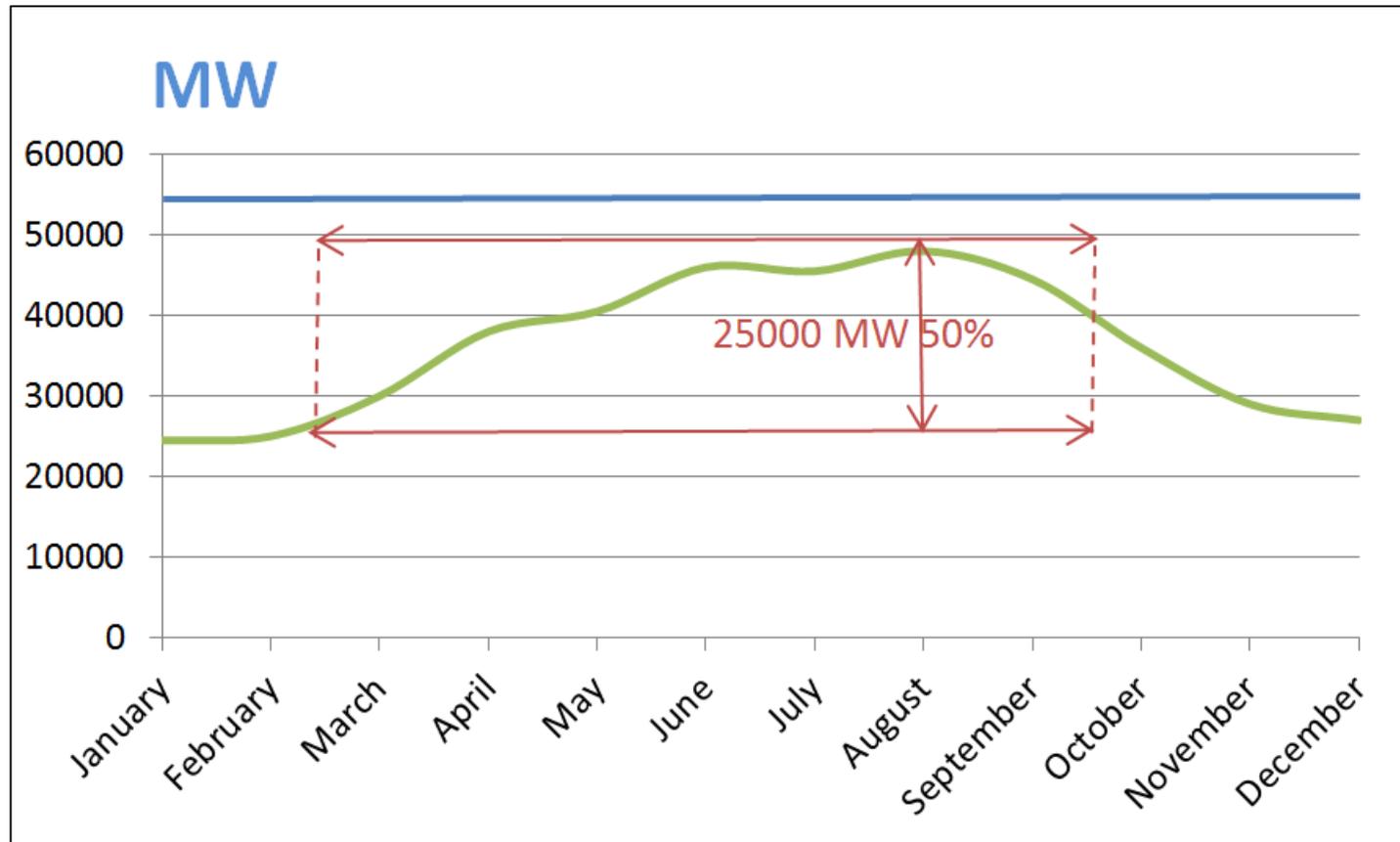


Sustainability if all liabilities are considered



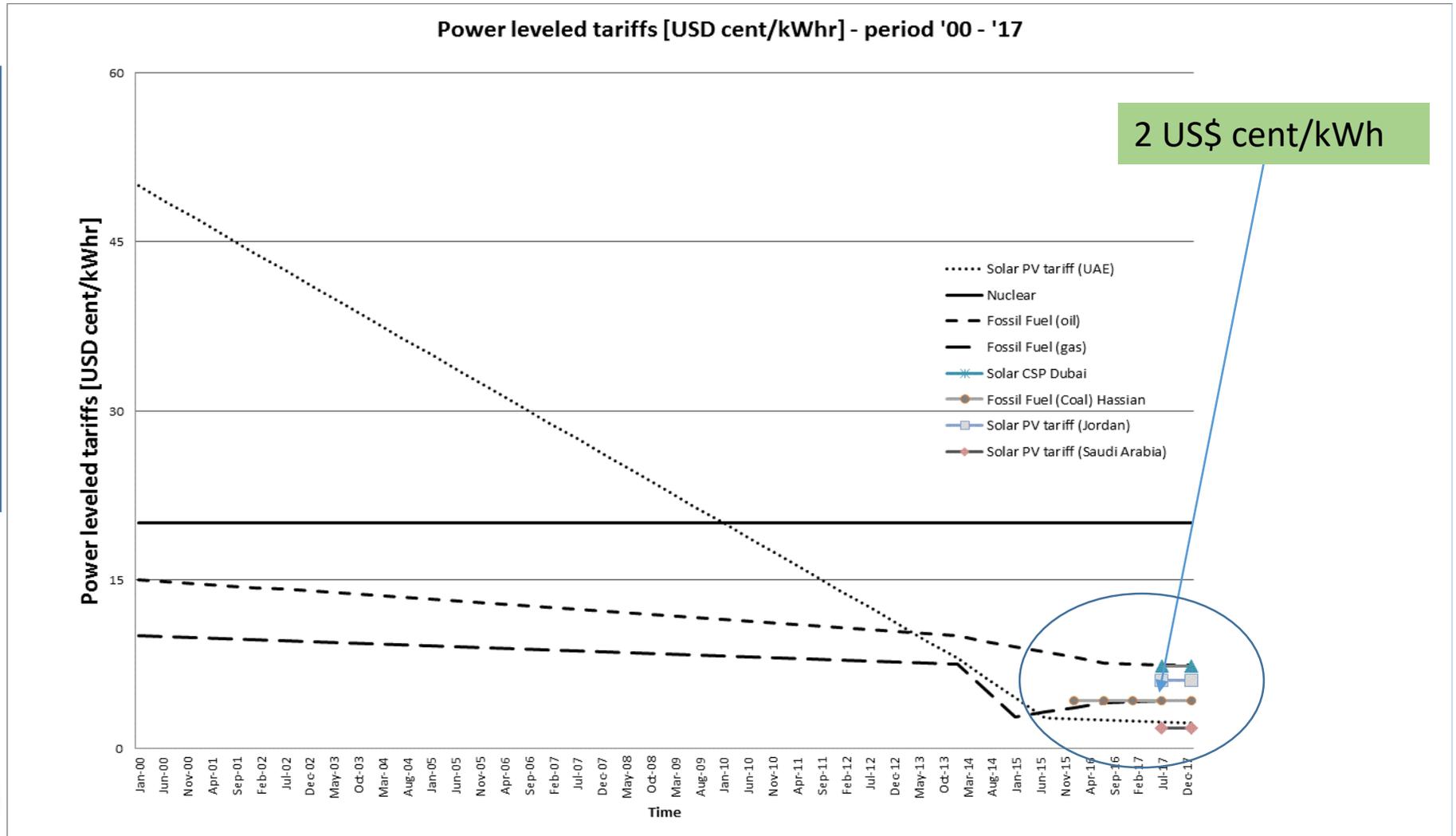
Old grid demand scenarios

The peak load in the Kingdom is extremely marked with 25000 MW used for less than 50 hours/ yr. This in turn implies a very inefficient use of fuel

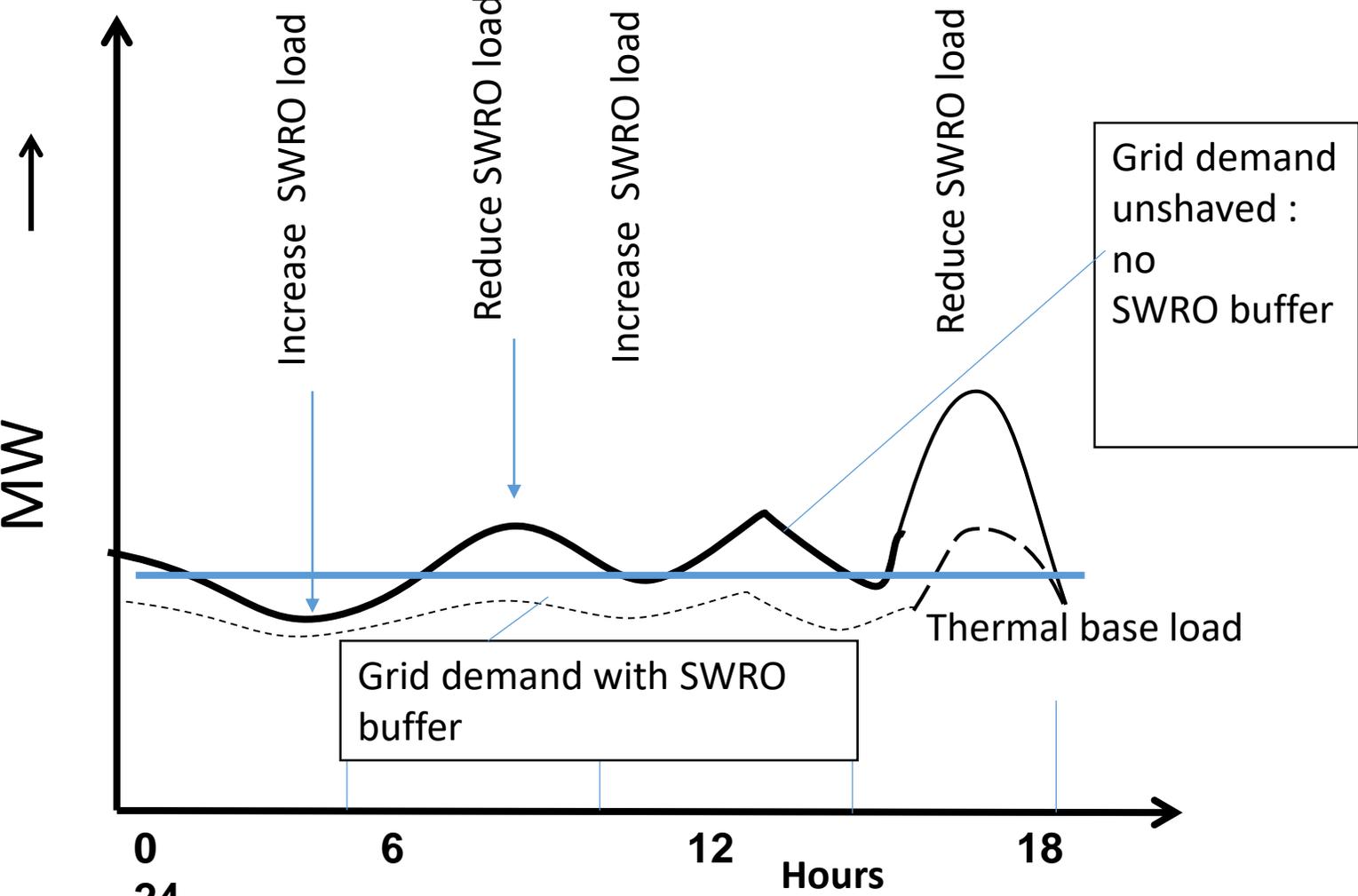


New grid demand scenarios

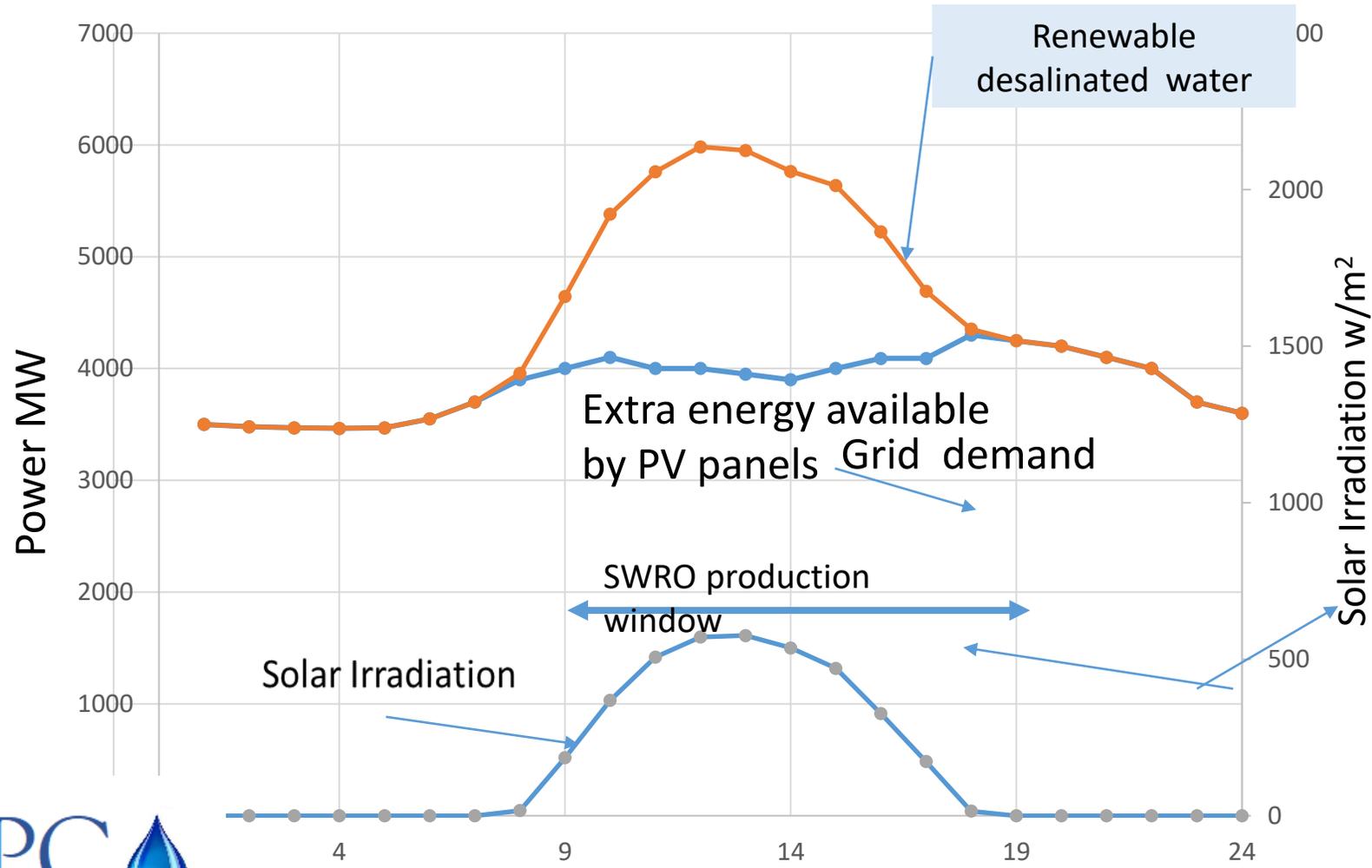
Energy price from PV system are reaching new targets as the time goes by



New grid demand scenarios

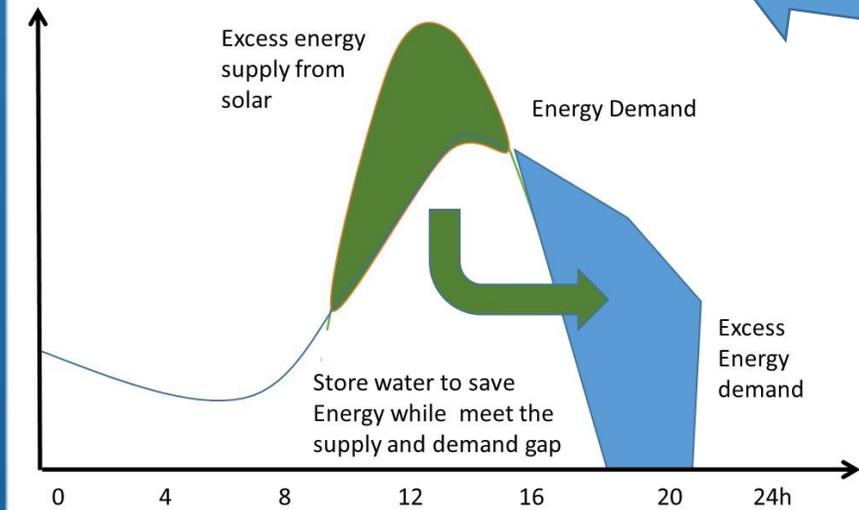
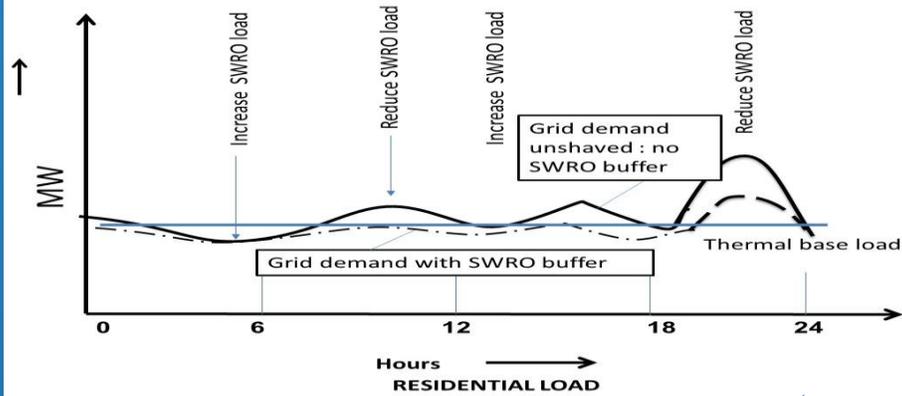


New grid demand scenarios



Peak load shaving and power demand management

New grid demand scenarios



Storage

Design conditions more reasonable

The cycle of opportunities

Use cheap excess PV energy availability to produce more in peak PV and less at grid peak load

Less DAF more capacity



Thanks



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