

Reflections on Tomorrow's CSP Plants

- ❑ **CSP is – and will be – the cheapest renewable option to fill the PV drop when the sun sets every day and to provide carbon-free generation during night time**

The dispatch will be firm and no subject to deviations as all the energy is previously stored. Systems that expand some hours to cover the evening peak would be nice if they don't claim to be paid double the price than PV during day time. These systems would also cause more curtailments and market price issues.

- ❑ **Once a CSP plant is built its thermal storage can offer a wide range of services to the electrical system at a much lower cost than batteries or pumping stations**

The storage system could offer the possibility to keep a certain capacity in winter periods to be dispatched during the “100 more critical hours”, independently on the previous days weather conditions. Additionally the plant design should allow the integration of electrical heaters, to be prepared in case of large curtailment volume or price arbitration opportunities.

- ❑ **All internal consumption of CSP plants should be supplied by own PV installations**

The electricity cost could be reduced between 3 – 5 %. All the electricity fed into the grid will be exclusively from the turbine alternator set.

Not to forget. CSP plants can be at the same time:

- A power plant, which delivers the most convenient dispatch profile
- A storage system, which can provide strategic reserve, curtailment collection and price arbitration



Can you guess how much will cost a battery system with the same capacity (energy and power) than this already existing installation?

