

SOL optimises the value of flexible power year-round

The Italian industrial gas producer SOL is partnering with RRestore (now part of Centrica Business Solutions), to optimise the value of the flexibility of its Feluy plant all year round.



Challenges

The SOL group has always been active in Demand Side Response (DSR). In the case of major imbalances on the grid, Italy cannot rely on its limited interconnections with neighbouring countries. As a result, industrial consumers must demonstrate flexibility and adapt their demand during power shortages.

In Belgium SOL has operated an air-separation unit (ASU) at Feluy since 1998 and had participated in Elia's conventional interruptible supply reserve. However this had proved operationally difficult as SOL had been obliged to completely switch off the plant often without notice without any control over what equipment was affected and with no possibility to disregard curtailment requests.

Centrica Business Solutions showed that the two compressors and a nitrogen liquefier at Feluy are ideal units for flexibility consuming substantial amounts of power and able to be easily switched off in a few minutes. Equipped with large storage upstream and downstream, they can be curtailed without significant impact on gas production and deliveries.

The solution

Centrica Business Solutions sparked the plant management's attention when it introduced them to the new Tertiary Reserve programme launched in 2011 by Elia, Belgium's Transmission System Operator. This provided more time to react (15 minutes to deliver the curtailment instead of 3) and Centrica Business Solutions would only curtail the flexible processes of the plant – not the whole plant. And SOL had control rather than Elia. However, it also imposed a mandatory power reduction level to which SOL couldn't commit by itself. But within a pool composed of other industrial consumers, SOL could be shielded from unavoidable periods of unavailability such as when its compressors are undergoing major maintenance or the liquefier is not running.

**6TH
LARGEST**

Europe's sixth largest technical gas producer

**11
PLANTS**

Owns and runs 11 hydroelectric power plants

**15
MINUTES**

To deliver curtailment, instead of 3 minutes

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Centrica Business Solutions demonstrated how we can optimise the value of our flexibility at Feluy without increasing risk.”

Spokesperson, SOL Feluy

This principle of aggregation came as a logical step for SOL to maximise the value of its flexibility without taking on more risk. A subsequent move for the company to participate in the Strategic Reserve also came as a natural, logical step.

The results

- Centrica Business Solutions's portfolio supports the industrial consumer and the industrial consumer supports the portfolio: if a site cannot deliver, another member of the pool will.
- Centrica Business Solutions takes away the administrative burden of yearly and monthly auctions, contracts and settlements.
- Demand Side Response facilitates the further development of renewable energy. It lowers industry's carbon footprint. It helps to curb global climate change.