POWER HUB SWITZERLAND: FROM NET EXPORTER TO IMPORTER?

NETWORKING ENERGIES

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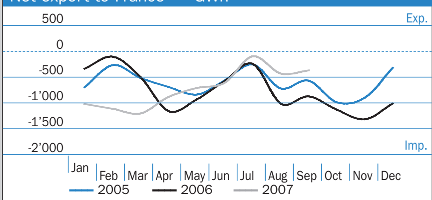
Thanks to its pivotal location Switzerland became an important power hub within Europe, importing from the major power producers France and Germany while exporting to Italy. In the past Switzerland used to be a net export country. Due to the lower demand in summer and the power plant park structure being largely hydro-based (42% nuclear, 27% reservoirs and pump-storage, 26% run-of-river and 5% conventional thermal production), Switzerland is a net importer during winter and a net exporter in summer. Being a power hub and the fact that imports/exports are high compared to its consumption, Swiss price levels are similar to Germany and France taking additional interconnector capacity fees into account. In case of bottlenecks at the northern Swiss border prices might even be significantly higher. Italy as major import country tends to have a higher price regime.

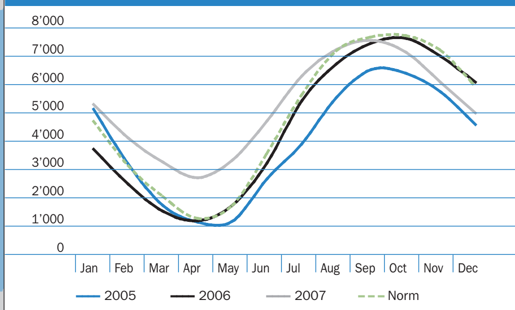
Total interconnector capacity (indicative)

CH ▸▸▸ FR = 2’300 MW **FR ▸▸▸ CH** = 3’200 MW

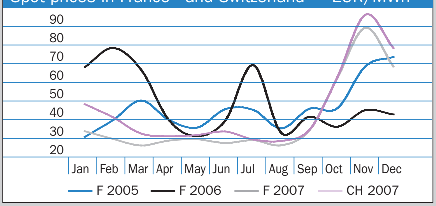
Net export to France [2] – GWh



Swiss reservoir [1] – GWh



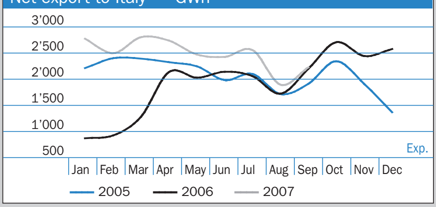
Spot prices in France [4] and Switzerland [3] – EUR/MWh



Total interconnector capacity (indicative)

CH ▸▸▸ IT = 3’890 MW **IT ▸▸▸ CH** = 1’460 MW

Net export to Italy [2] – GWh



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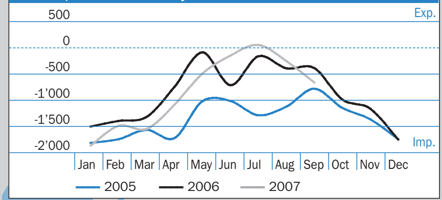
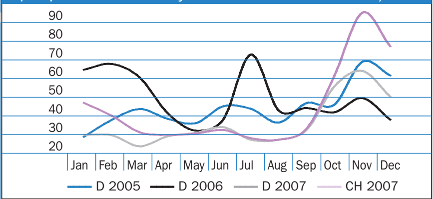
Total interconnector capacity (indicative)

CH ▸▸▸ DE = 4'000 MW   **DE ▸▸▸ CH** = 2'100 MW

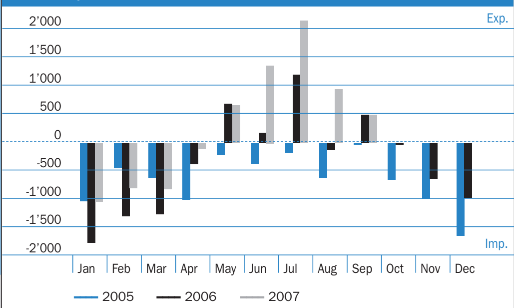
Net export to Germany[2] – GWh



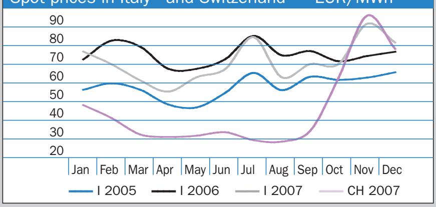
Spot prices in Germany[3] and Switzerland[3] – EUR/MWh



Net export of Switzerland[2] – GWh



Spot prices in Italy[3] and Switzerland[3] – EUR/MWh

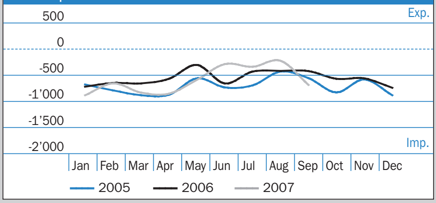


In the last decade power consumption increased in Switzerland year by year and reached 62'124 GWh (2006), whereas net production decreased (except in 2001) to 59'421 GWh in 2006. Consequently, consumption exceeded production in 2005 and 2006 for the first time during the last ten years. Accordingly, total imports were higher than exports. Note that 2005 was a rather dry year and the biggest nuclear power plant Leibstadt (1'165 MW) suffered an outage for several months.

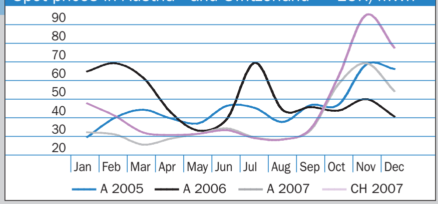
Total interconnector capacity (indicative)

CH ▸▸▸ AT = 1'200 MW   **AT ▸▸▸ CH** = 1'200 MW

Net export to Austria[2] – GWh



Spot prices in Austria[5] and Switzerland[3] – EUR/MWh



2007 appears to mark an exception in the observed trend, even if the final data is not yet available: the mild winter and the wet summer resulted in lower consumption and higher production and thus exports exceeded imports. However, the trend will probably continue at least in the next few years since consumption is forecasted to grow further and new power plants will not be in operation soon. Accordingly, a sustainable change of the import/export pattern at all borders is not unlikely and power prices in Switzerland will be increasingly linked to Italian prices, regardless of the liberalisation process starting this year.

Sources: [1] Bundesamt für Energie BFE / [2] UCTE / [3] EEX
[4] Powernext / [5] EXXA / [6] IPEX (PUN)

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