

Elia TF Strategic Reserves

1st meeting 17 feb 2014.

GABE remarks on Strategic Reserve Implementation :

General :

- To warrant Generation-Load adequacy:

$$\begin{array}{ccccccc} \text{Min (P generation)} > \text{Max (P loads} & + & \text{P ancillary serv.)} & & \text{at any t} \\ \updownarrow & & \updownarrow & & \updownarrow & & \updownarrow \\ \text{N-1 power plants} & & \text{Winter Peak H.} & & \text{R1+R2+R3...} & & \text{worst cases} \end{array}$$

- We have to distinguish between

- **Accidental / rare inadequacy G - L** → rare load restrictions
- **Structural / recurrent inadequacy** → **systematic load restrictions**

- Note that, **already today any industrial site, the order book of which is not full, has interest to modulate its consumption between peak and off-peak hours, as much as possible, because of price differential !**

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Reserves provided by « Demand Side »:

- For industrial sites reducing their consumption to solve inadequate generation capacity with regard to loads, during « critical hours », **Number & total duration of consumption reductions are key factors.**
- On one hand, higher is the number of consumption reduction,
 - smaller is the industrial production, putting fix costs on less product, decreasing plant competitiveness
 - more consumption will be transfered to “not-critical” hours; therefore, during more and more hours, the market will be tight with high prices, killing electro-intensive industry competitiveness.
 - In fine : industries will no more be profitable in this country !
- Conclusion: **Too long & frequent Consumption Reductions are not acceptable solutions against structural G-L inadequacy for hundreds of hours by year.**

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Reserves provided by « Demand Side »:

- But on another hand

Some situations have a low occurrence probability (~ hundred hours a year) but required a great deal of power reserve. It would be inefficient to book this one from power plants, at market price.

Conclusion:

- **The optimum to palliate large but rare lacks of generation capacity is consumption reduction.**

- **Therefore: for this reserve,
TSO should contract industrial site load-shedding (~100 hours / year).
we recommend to study extension of ICH : more interruptions, more hours.**

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Reserves provided by « Generators » :

- After the period of incentive by green certificates, some cogeneration units might be stopped, because of lack of profitability.
- Therefore, we recommend **the mechanism permits the participation of cogeneration units.**