Criteria and Methodologies

Network Studies : regional focus

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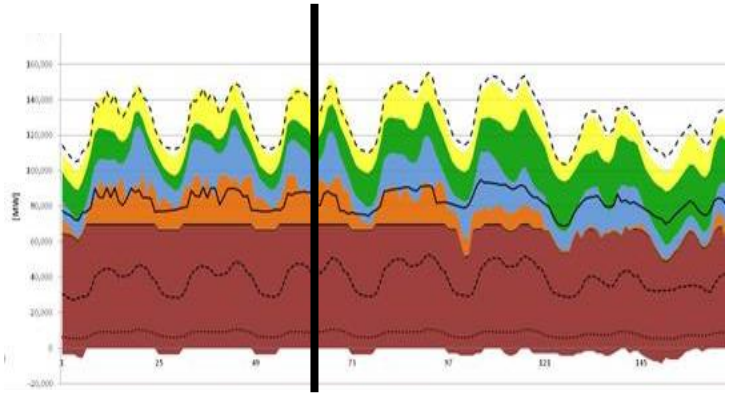
Reliable Sustainable Connected

From Market Studies to Network Studies

Market Outputs

- Hourly information per country *(generation per fuel type, demand)*
- Hourly cross border exchanges



Network Studies

- Cases (Points in Time) implementation
- Duration curves of cross border flows

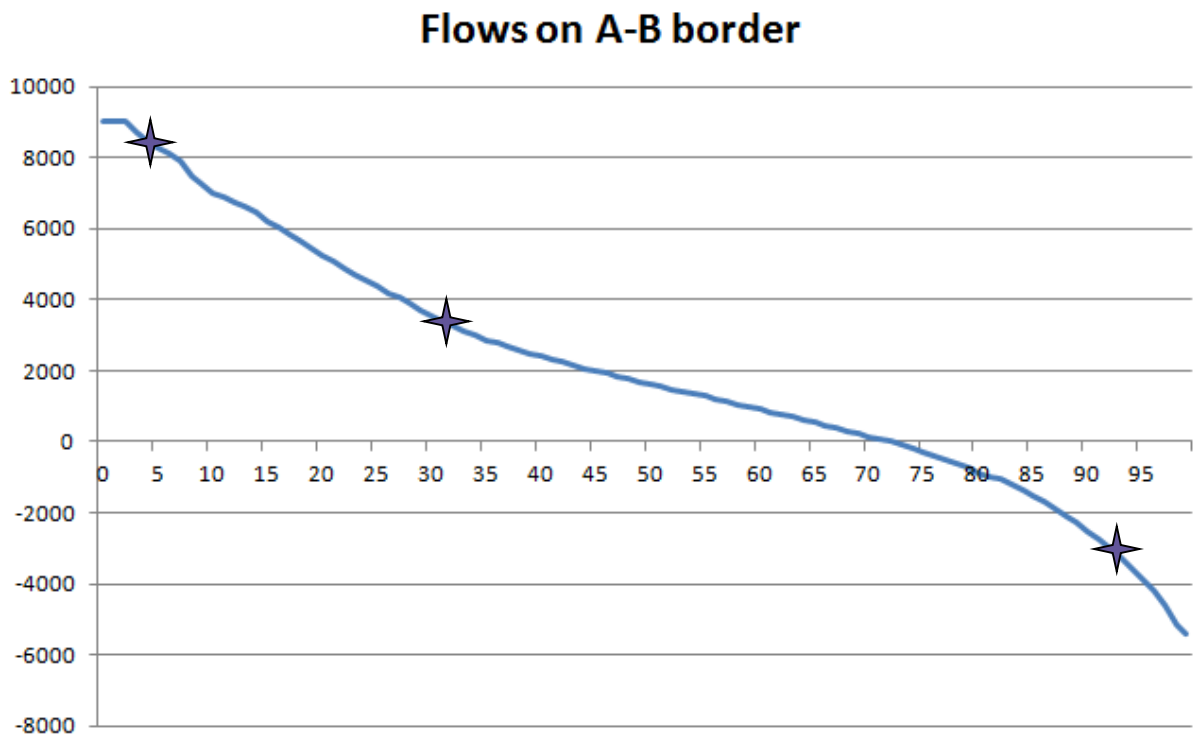
Main Results

- Grid Transfer Capability
- Losses

Choice of the cases

Based on the Market outputs, we can find some relevant cases in order to assess the impact of the project.

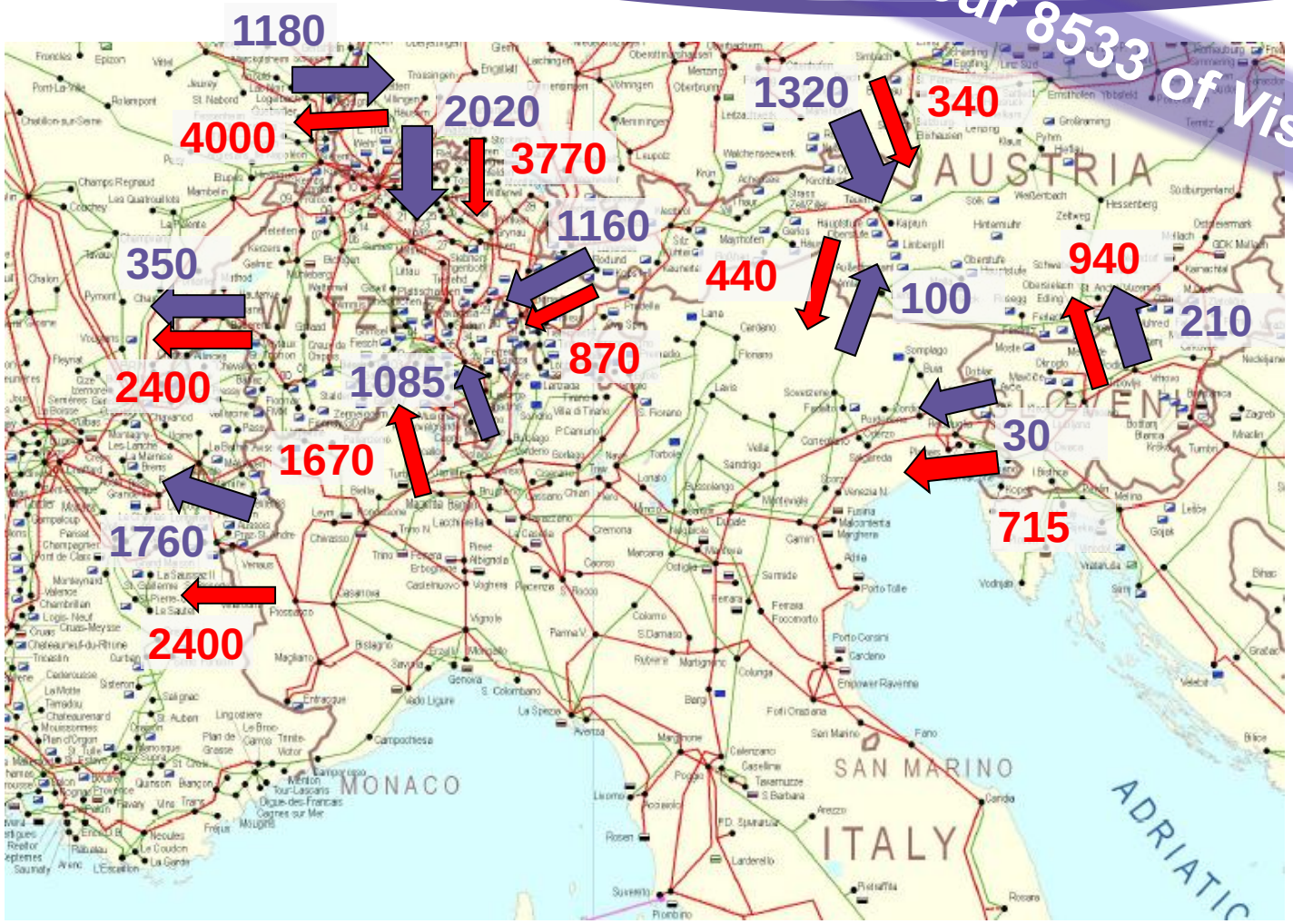
The parameters could be : High import of Italy, High wind in Germany, Pumping in the Alps, …



Examples of cases implemented

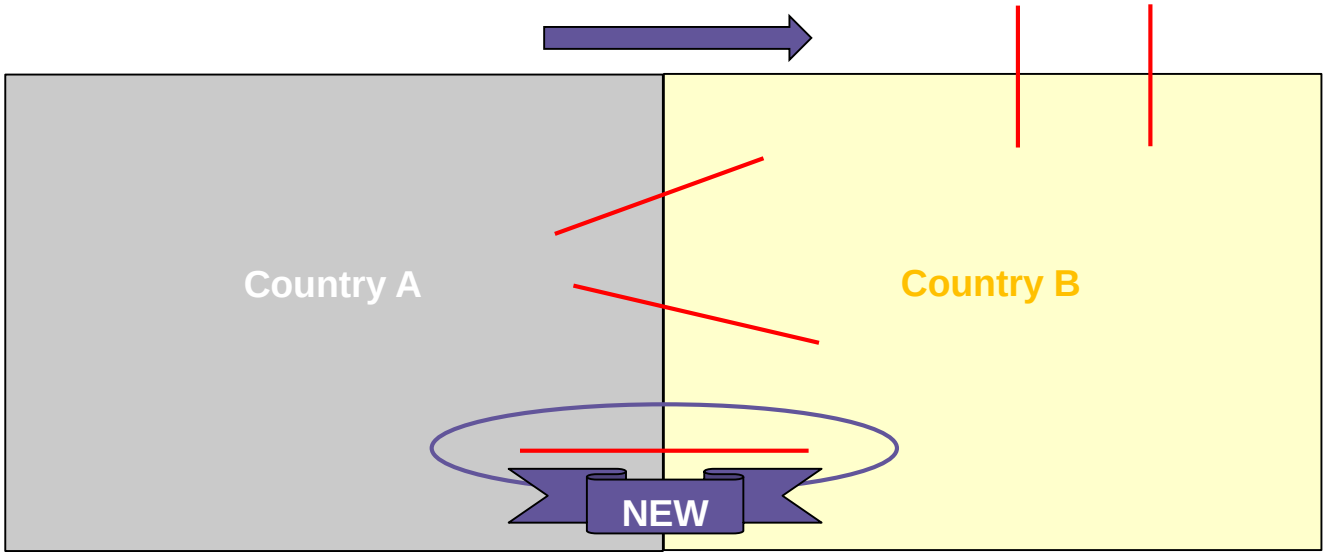
Hour 6958 of Vision 4

Examples of cases implemented



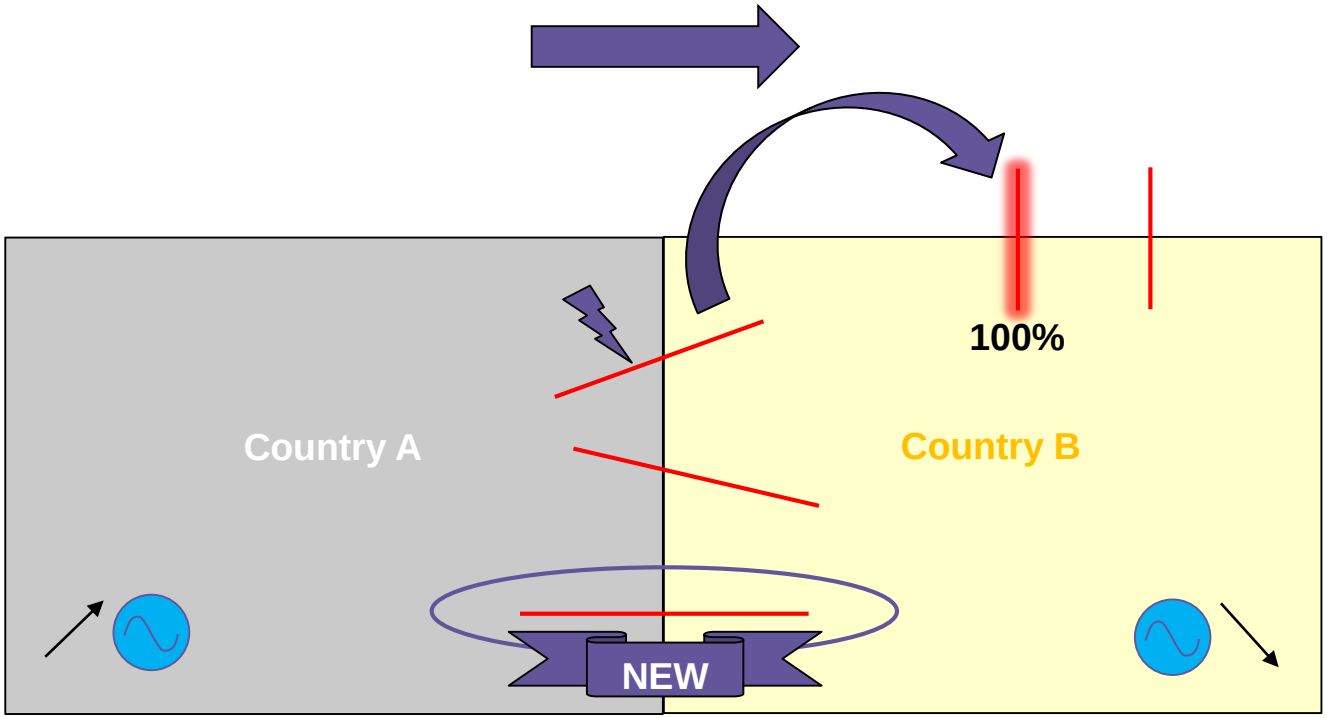
Assessment of the GTC

The Grid Transfer Capability is assessed after the implementation of a relevant case in a Load Flow tool. Then, the goal is to find the critical brach with and without the project assessed and the delta of redispatching needed to reach the limit of the grid.



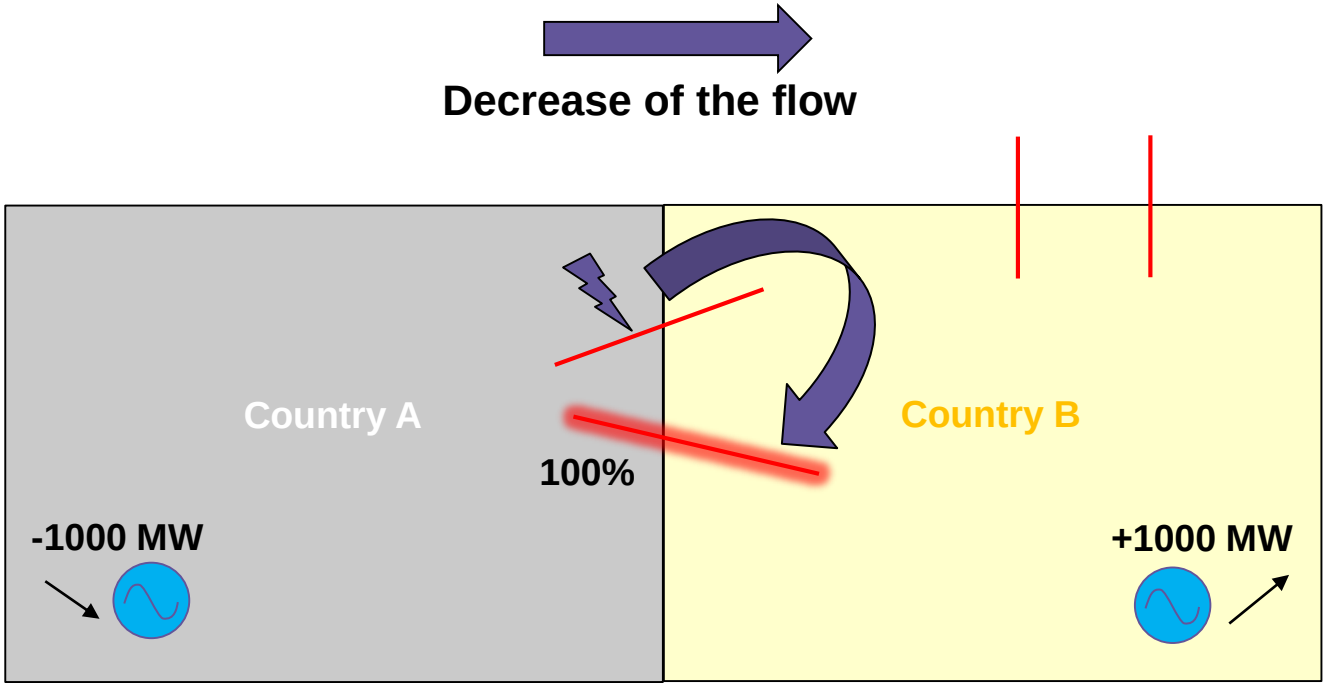
Assessment of the GTC

1) Search the first limit of the grid with the project.



Assessment of the GTC

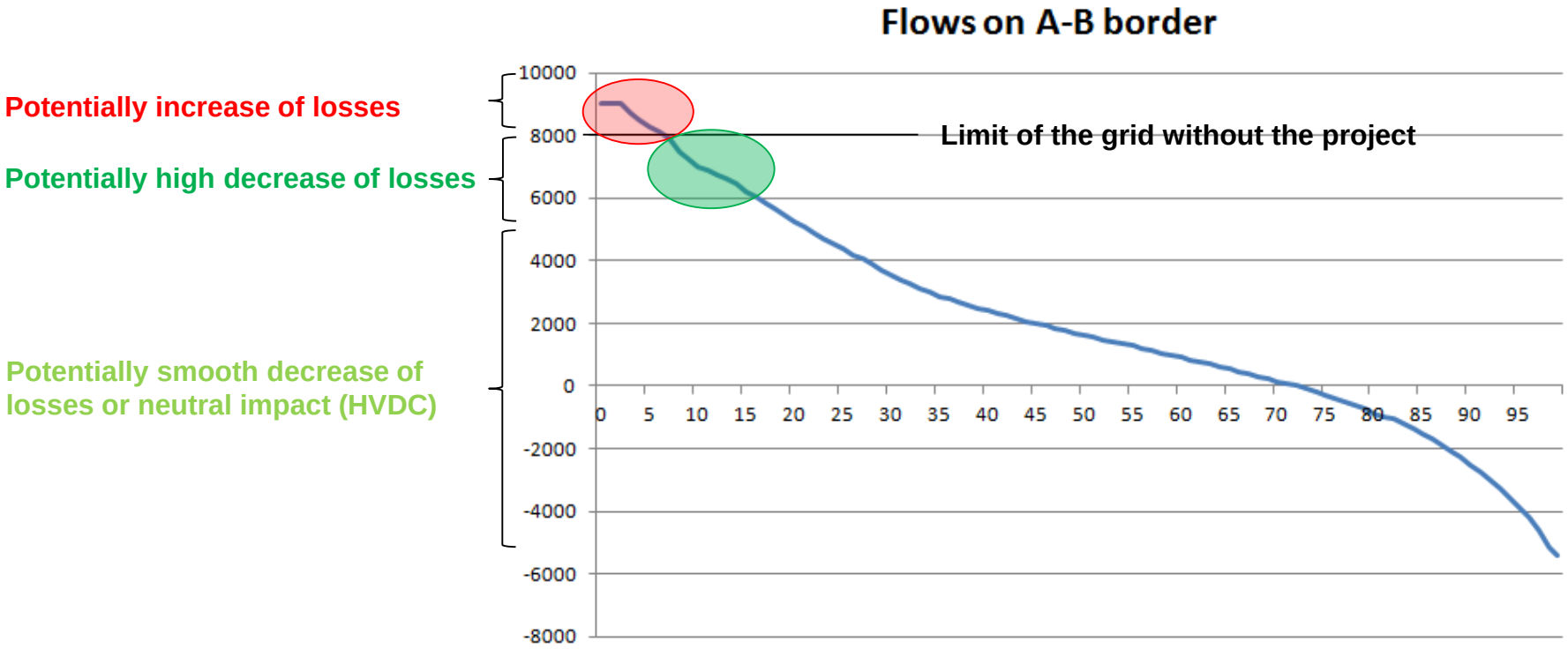
2) Take Out One at a Time (TOOT). Search the first limit of the grid without the project.



Powershift of 1000 MW means a Grid Transfer Capability of 1000 MW for the assessed project

Assessment of the losses

The losses are assessed in MW as a delta with and without the project. When an overload appears without the project, a redispatch is done. Then, taking into account the representativity of each case, the delta of losses during a year is calculated in MWh.



Conclusion

- Process : all projects assessed with the same methodology consistent with CBA.
- Two visions already assessed : Vision 1 & Vision 4.
- In vision 4, intensive situations.