

Project reference

Grid reserve capacity determination in a system dominated by thermal generation

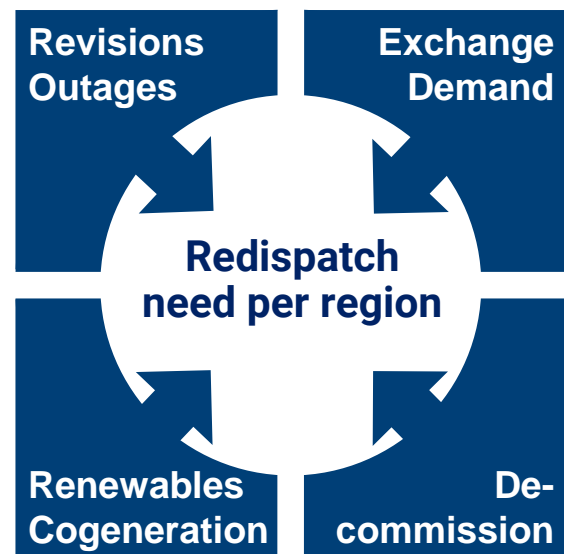
WHAT IS THE STARTING POINT?

Due to rising renewable energy sources the redispatch is used more often and the available redispatch potential shrinks. In order to fulfill a secure transmission grid operation a reserved redispatch capacity can be provided.

HOW WAS THE PROCEDURE?

The grid usage was forecasted for upcoming years via a market model. It took influence factors like availabilities, balancing provision and on-off decisions of thermal power plants into account. Thereby, it was possible to derive positive and negative redispatch potentials from every single power plant. Such forecasts were used in subsequent power-flow and redispatch calculations. The resulted difference between necessary redispatch and available potential was the grid capacity estimator.

SELECTED MARKET INFLUENCES



WHAT WERE THE RESULTS?

The market model provided a detailed thermal power plant dispatch including technical feasible redispatch potentials. Such can be used for validation, critical grid situation identification and the determination of the minimum grid-driven redispatch capacity for thermal power plants.