

Use case

Techno-economic assessment of hydro power plants

NEED FOR EVALUATION?

Due to long payback periods, hydro power plants must be checked for economic profitability before investing. Afterwards, during the operation revenues have to be maximized with target basin filling levels.

WHAT CAN BE DELIVERED?

Maon derives profitability forecasts based on future market scenarios and hydro network structures. It delivers electricity spot and reserve market prices as well as the unit commitment per hydro turbine, pump and basin. The model is based on the characteristics of components and their interplay. Such are formed by the hydro network and its time coupling. Outputs are opportunity costs and filling levels of each basin for 8760 hours. Thereby, turbine revenues, pump costs and target filling levels can be estimated.

WHAT ARE THE BENEFITS?

Latest discoveries in research like hydro cascades and the annual complexity handling were transferred into the model, so that cutting-edge decision support can be achieved. Prerequisites like hardware, software and input data are integrated and ready to start.

SCANDINAVIAN FILLING LEVEL

