

Rubric for grading Course Project

DTU Course 46770: Integrated Energy Grids

February 2026

0.5 points Proper discussion of optimal capacity/generation mix including plots for the dispatch for one week in summer and winter, annual electricity mix and duration curves.

0.5 points Proper discussion of the optimum capacity mix vs global CO₂ constraint.

1 point Proper discussion on interannual sensitivity including plots for average capacities (obtained for different weather years) and interannual variability. (0.5 points if average and variability are calculated + 0.5 points if the reasoning of differences among technologies is provided)

1 point Proper discussion on storage technologies and how they modify the optimal capacity mix.

1 point 0.5 points for the description and implementation of the interconnected model + 0.5 points for reasoning on the impacts of the interconnected model compared to a single node.

1 point 0.5 points for the correct calculation of the incidence matrix and the power transfer distribution factor (PTDF) matrix of the network + 0.5 points for the correct calculation of the optimal power flowing through every line.

1 point 0.5 points for the description and implementation of the gas network + 0.5 points for the comparison of energy transported by both types of networks

0.5 points Calculation of CO₂ price and reporting on currently existing CO₂ price, including the comparison between them and reasoning

1.5 points 0.5 points for the description of the sector-coupling approach selected + 0.5 points for the model implementation + 0.5 points for reasoning on the impacts of the sector-coupled model compared to the single node.

1 point 0.5 points for the research question identified + 0.5 points for a description of the modelling approach to investigate it.

1 point The text is clear and well structured, figures can be easily read and include proper captions and units.