**Results analysis**

Ok, so I developed a small piece of code that performs revenue simulations for an energy system.

After a simulation, I have two Excel result files in this form: "scenario\_name\_overall\_results.xlsx" and "scenario\_name\_operations\_results\_logs.xlsx". (see examples attached) I would like a Python code that aims to analyze/synthesize the results, extracting key results and performing statistical calculations, etc., and also to allow the comparison of results from multiple scenarios/simulations. First, I would like the user to choose the number of scenarios to compare and analyze: 1, 2, or 3 max. Then a dropdown list with all the Excel result files (to allow the choice of scenarios).

So the code will take as input the two result files from each selected simulation/scenario. And the code will generate an output Excel file to visualize this comparison for the users.

A draft Excel Template file has been made.

So the Python code needs to be created to achieve these results based on the input files. All the simulation result files have exactly the same format, which makes it easier to automate the task of extracting specific columns from these files, performing calculations, comparing, plotting graphs, and formatting.

In the Excel Template file, the columns in green and blue represent the data from the two simulations directly retrieved from the result files. Then the calculation columns are the analyses and comparisons made. The Template file is a draft. But overall, there is a tab per simulation, bearing its name, which aims to compare the relevance of the results between the two Excel files, the calculations are redone (by taking the data set from the "scenario\_name\_operations\_results\_logs.xlsx" file and comparing it with those from the "scenario\_name\_overall\_results.xlsx"). Then an overall-results tab compares the two data sets from the corresponding Excel files. Next, compare the price and power outputs one by one, do the calculations and plot graphs in addition to the calculations for visualization.

I want different colors for each scenario, to make it visual. I also want relevant graph plots.

And if you have any analysis suggestions, I'm interested.