

## **Project Work for Modul 3, CAS Applied Data Science, Uni BE**

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### **Topic: Electricity price time series forecasting for switzerland**

This work evaluates different multi-step, multi-output models concerning use for forecasting day-ahead electricity prices of switzerland

Following files and comments:

- Notebook: Learning\_on\_time\_series\_VII\_E-Prices.ipynb  
Use on Colab recommended (with runtime type: GPU)
- Data: data is loaded in 4 csv files (4 different time intervals of same data)  
df\_fit\_data\_2019-01-01\_2021-03-12\_noDrop.csv  
df\_fit\_data\_2019-10-01\_2021-03-12\_noDrop.csv  
df\_fit\_data\_2020-01-01\_2021-03-12\_noDrop.csv  
df\_fit\_data\_2020-04-01\_2021-03-12\_noDrop.csv  
The data is originally loaded by a Python API Implementation (package entsoe-py) for the Transparency Plattform of ENTSO-E.  
find it on GitHub: <https://github.com/EnergieID/entsoe-py>  
For convenience the data is here provided as csv files.

It is recommended to load it from google drive.

link "how to load":

<https://towardsdatascience.com/3-ways-to-load-csv-files-into-colab-7c14fcbdc92>  
(implemented in the notebook and recommended use is way Nr. 3)

- Additional Documentation: Documentation\_to\_results.pdf  
shows different results on "Multi-Step – Multi-Output" Models and the way the optimized forecasting parameters in a "story telling manner".