OCF Coding Challenge

Time: ~2-3 hours

Task: The carbon intensity of the electricity grid measures how much carbon on average is generated in the production of a MWh of energy. This depends on the mix of generation supplying the grid across renewable sources, nuclear, gas, biomass and so forth. Figures on the carbon intensity of the grid are compiled in the website link below.

Your task is to train a model to predict the Carbon Intensity of the grid. You should aim to produce a 24-hour forecast in 30-minute time intervals.

Here are a few ideas you could try, but please don't limit yourself to these:

- Compare with the Carbon Intensity forecast provided, make sure you don't use the Carbon Intensity forecast in your own forecast.
- Include other variables that could be useful

Data: We've provided some data that contains the Carbon Intensity forecast and actuals, demand forecast, wind generation forecast, and solar generation forecasts. link

Code: We would like you to use Python, but if you think there are more appropriate

coding tools, then please select them. Code should be clear, concise and easy to read.

Links: https://carbonintensity.org.uk/. The documentation for the API is here

Submission: Please send us your code or a link to your GitHub.

Timeline: Please submit your code by midnight GMT, the day following the receipt of the task.

If you have any questions, please feel free to reach out to bhavika@openclimatefix.org