Assignment 1: Societal and Ethical Aspects of Data

The data for the project is primarily sourced from Enefit, the largest energy producer in the Baltic region, and is collected from prosumers throughout one and a half years. The data from Enefit is licensed under <u>CC BY-NC-SA 4.0</u>, promoting fair use and responsible sharing. I learned to emphasize the need for transparency and ethical considerations regarding explicit consent, data ownership, and control.

Mainly I have reflected on two aspects, namely:

- 1. Data Licensing and Sharing: The use of open-access licenses indicates a commitment to transparency and fair use. Clear guidelines on ownership and publication rights contribute to ethical research practices.
- 2. Socio-Economic Considerations: Our predictions have the power to influence energy pricing or policies, which may have impacts on different socio-economic groups. So we should be considerate and acknowledge this as one of our limitations.

Assignment 2: Ethics of Algorithms

I have explored ethical considerations of algorithms within this project through two dimensions: epistemic concerns and normative concerns.

Epistemic concerns involved,

- 1. ChatGPT Challenges: The use of ChatGPT in the project and model's tendency to generate false content and spread misinformation poses an epistemic problem, raising concerns about reliability and accuracy.
- 2. lightGBM and Catboost Issue: The use of the complex machine learning tool, lightGBM and Catboost introduces an over or under-predicting issue. The connection between data and conclusions becomes less transparent, hindering the interpretability of how data points contribute to the generated outcomes.

Normative concerns involved,

- 1. Privacy Concerns and Traceability: Privacy concerns arise as personal data, such as energy consumption patterns, is processed in our analysis. It is crucial to address how data is handled and stored and whether prosumers have provided informed consent.
- 2. Unfair Outcomes: There is a normative concern regarding the outcomes produced by predictive models.

Note: For a comprehensive understanding of the ethical considerations in our project, please refer to the detailed information available in the assignments.