

Get to know Otter Energy Trading

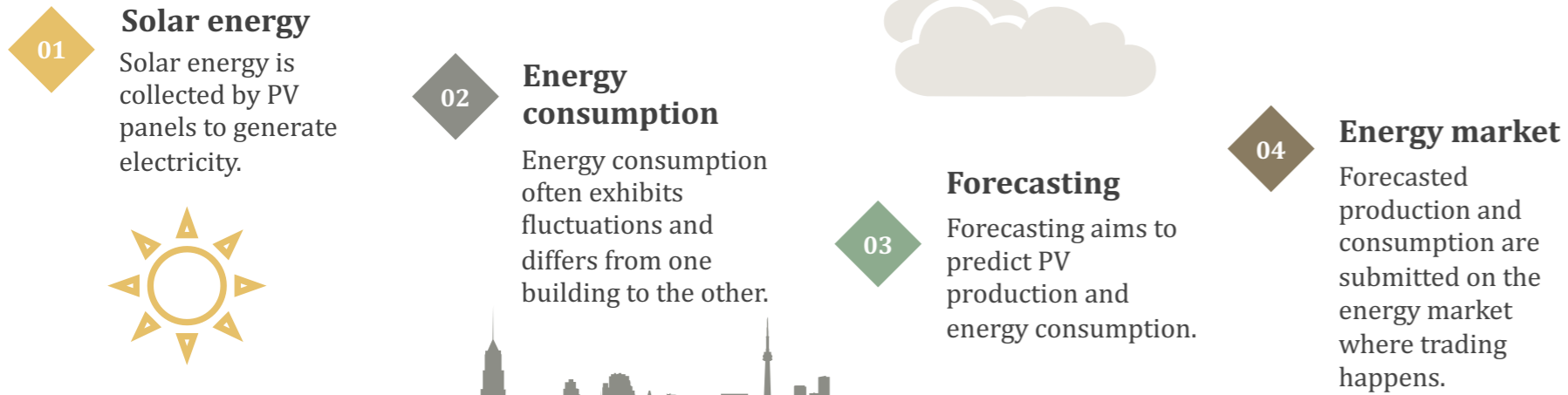


Meet Otter Energy Trading, a dynamic startup born from the vision of transforming the **energy trading** landscape. At OET, we specialize in trading the **PV energy** in the easiest and most profitable way. With **artificial intelligence** as our ally, OET is aiming towards a cleaner and smarter energy ecosystem.

The goal of this project is to explore and apply AI energy forecasting algorithms in real-world scenarios.

AI ENERGY FORECASTING Student project

What do we need forecasting in energy trading for?



Forecasting in energy trading is a bit like predicting the weather, but for electricity. We collect a bunch of data, like historical usage patterns, weather forecasts, and market trends.

We look at things like the time of day, the season, and even events like holidays that might affect energy usage. Based on all this information, we can forecast how much energy will be needed, where it will be needed, and when it will be needed.

So...

Because the trading happens for energy that is going to be produced and consumed in the future, we need to estimate how much energy we will have at hand. Thus, forecasting helps energy traders decide how much energy to buy or sell, at what price, and when.

How can you help – Potential projects

- Elevate your Machine Learning skills with real solar and load data
 - Dive into the world of PV solar plants and refine ML forecasting models. See your enhancements put to work on real power plants and observe the effect of your work in the business from day one, not just on some research paper. Your responsibility will involve experimenting with different ML models, feature selection, hyperparameter tuning, model evaluation and more.
- Explore Deep Learning with actual solar and load data
 - Explore the forecasting in the energy sector with neural networks and other DL models. Witness firsthand how your enhancements lead to more accurate energy predictions in real-world scenarios! The goal would be to work with DL models like ANNs, RNNs, Transformers, ... and to compare the performance against already-existing ML models.

What would you work with

- Don't worry. You won't have to develop anything from scratch. We use established technologies that are well-documented.
- Work with Python, scikit-learn, pandas, Nixtla, pv-lib, ...
- **Because the project is focused on AI, at least a basic machine learning foundations are needed**