## Case Study Theme

European Power Fair Value: Forecasting Day-Ahead and Translating to Prompt Curve Views

## Objective

Build a prototype that produces a daily fair-value view for a European power market and demonstrates how this view informs prompt curve positioning.

## Requirements

### 1. Data Ingestion & Quality Assurance

**Task:** Collect publicly available data for one European power market (DE, FR, NL, or GB).
**Deliverable:** A dataset including hourly Day-Ahead prices and at least two fundamental drivers. Data sources must be documented and quality assurance checks implemented.

### 2. Forecasting & Validation

**Task:** Forecast either next-day hourly prices (Option A, recommended) or front-week/front-month price averages (Option B).
**Deliverable:** At least one baseline model and one improved model, including validation metrics.

### 3. Prompt Curve Translation

**Task:** Translate the forecast into a tradable Day-Ahead to prompt curve view.
**Deliverable:** Short guidance explaining how forecasted values would be used or invalidated in trading.

### 4. AI / LLM Integration

**Task:** Implement one programmatic AI or LLM component to reduce manual work in the pipeline.
**Deliverable:** Working code calling the AI/LLM, logged prompts and outputs, and a brief explanation of its purpose.

## Submission

- 1–3 page document (PDF or Markdown) including name and email.
- Repository or zipped folder containing pipeline code, README, requirements, QA output, figures/tables, and AI component.
- Optional: *submission.csv* with out-of-sample predictions (id, y_pred).

## Evaluation Criteria

- Dataset correctness and quality assurance.
- Forecasting rigor.
- Trading relevance.
- Engineering quality and reproducibility.
- Effective programmatic AI/LLM usage.