

ANWB Energie: Assessment Analytics Engineer

Welcome to ANWB Energie. Your mission, should you choose to accept it, is to get a grip on what is going on in the energy market and find the needle of insight in the haystack of data. For today's mission, your goal is to combine two data sources for electricity to find outliers in predicted energy prices.

- EPEX: The European Power EXchange has pricing information per date/hour from 2021-2025. It includes the price in EUR/KWh for electricity.
- ENTSO-E (European Network of Transmission System Operators for Electricity) has data on electricity load across Europe. You will find data from 2022-2025 in the Netherlands with both the actual load in MW per day on a 15min basis as well as the predicted load in MW for the next day (day ahead total load forecast)

Your mission

Create a dbt project in dbt-core that combines both data sources and find the 10 days with the biggest differences between the actual and predicted load and the (correct) difference in price for that day (using the actual price on the day).

Requirements

- Use a staging layer and a source definition for each data source
- Use a marts layer with documentation and not null and uniqueness testing on your models with the end result.
- Use a macro for the business logic of calculating the difference between actual and predicted load
- Send us the link to your github repo at least the night before the assessment so that we can review your solution

Tips

- You are free to use any database you like. We recommend using one of the following:
 - o [DuckDB](#) if you like to use a local database with a good ability [to import CSV files](#) (you can use the `external_location` config in dbt-duckdb for this).
 - o Google BigQuery has a always free tier if you have a Google account
 - o Snowflake has a 30-day free trial
- Think about how you would like to load the CSV files. You can use the dbt [external-tables](#) package, the BigQuery CSV loader or the DuckDB CSV loading capabilities.
- If you would like to show of your skills, you are free to add in incremental models, custom tests, customer materializations or whatever dbt feature you excel at.