# Training Guide

This section is designed to give Laura a simple, clear, and empowering guide to perform similar analysis in the future.

## Step 1: Understanding the Data Sources

Dataset 1 – Wholesale Electricity Prices: Baseload prices for GB and DE across quarters.  
Dataset 2 – Capture Prices: GB and DE capture prices for solar PV and Onshore wind technology across forecasted years.  
Dataset 3 – Generation Mix (GWh): Electricity generated by each technology in each region.

Dataset 4 – Processed Summary: Summary of Capture price and generation volume across quarters for GB and DE.

Dataset 5 – Technology: A lookup table that contains unique names of technology, no duplicates.

Dataset 6 – Geography: A lookup table that contains unique market names, no duplicates.  
  
Each dataset came in Excel format. For ease, combine all files into a dedicated folder.  
  
Tip: Don’t rename or move the Excel files once connected to Power BI unless you plan to reconnect.

## Step 2: Connecting Data to Power BI

Open Power BI Desktop and follow these steps:  
1. Get Data → Excel → Select dataset file.  
2. Choose the needed sheets (e.g., Wholesale Prices, Capture price, Generation mix).  
3. In Power Query, clean data (remove blanks, ensure proper formats, rename columns).  
4. Click Close & Apply.

## Step 3: Keeping the Data Fresh

If data is updated:  
- Replace the Excel file using the same name.  
- Click Refresh in Power BI.  
- Save and re-publish if needed.

## Step 4: Creating Relationships

In Model View:  
- Link tables by shared columns (e.g., Technology, geography) using the lookup tables.  
- Ensure relationships are single-directional and 'Many to One' when applicable.

## Step 5: Building and Reading the Charts

Here's a cheat sheet for visuals used:  
  
• Baseload Comparison – Line Chart  
• Generation Mix – Bar chart   
• Capture Price: Solar PV vs Onshore Wind – Cards  
• Price vs Output – Scatter plot  
• Forecast Comparison – Clustered column chart  
  
Drag fields into Axis, Values, and Legend areas to recreate each chart. Use tooltips for insights.

## Step 6: Saving and Sharing

- File > Save As for local copies.  
- Share as PDF or publish to Power BI Service for online access.

## Conclusion

This guide gives you the road map to update, and expand this report into new questions as they arise.