EuroMCM Sample Problem θ : The Green Deal

1 Background

In December 2019, the European Commission launched the **European Green Deal (EGD)**, a comprehensive strategy aimed at making the European Union the first climate-neutral continent by 2050. This framework seeks to transform the EU into a modern, resource-efficient, and competitive economy where growth is decoupled from resource use.

While the EGD provides a shared vision, its implementation is managed at the national level, where member states must navigate unique economic landscapes, demographic pressures, and industrial legacies. The transition requires significant investment and risks disproportionately impacting regions dependent on traditional industries.

Also, aggressive environmental pricing or regulatory shifts can trigger social unrest if they are perceived to disproportionately burden vulnerable populations or specific communities. The initiatives need to be balanced to achieve a just transition, decoupling economic growth from resource use while protecting people and regions.

2 Requirements

In this problem, you are asked to provide a data-driven evaluation of the European Green Deal's progress and potential future impact. Your tasks include:

1. Create a model to measure the "Green Readiness" of a nation. How should we quantify a country's progress across the EGD's pillars (e.g., energy, industry, transport, and agriculture)?
2. Use your model to analyse how the EGD impacts different types of EU member states. For instance, compare a highly industrialised nation with one that is more agriculturally focused. Identify patterns regarding their ability to meet the 2030 and 2050 targets.
3. Incorporate demographic and socio-economic data (e.g., employment in green sectors, energy poverty levels, regional GDP) into your analysis. Examine correlations with successful adoption of different Green Deal policies.
4. Perform a sensitivity analysis to determine which policy lever (e.g., carbon pricing (ETS), renewable energy subsidies, circular economy regulations) is most effective for specific national contexts.
5. Discuss limitations of the data and model, including potential carbon leakage effects, influence of external shocks or internal dynamics (energy price volatility, political changes), and reliability of self-reported national statistics.

3 Share Your Insights

Prepare a 1–2 page feature article for the magazine ***Sustainability***. The article should present a clear, non-technical overview of your findings for an informed public and policy audience.

4 Submission

Your PDF solution (≤25 pages) should include:

- One-page Summary Sheet
- Table of Contents
- Complete Solution
- One-to-two Page Article
- References
- Report on Use of AI Tools (if applicable; excluded from the 25-page limit)

There is no mandatory minimum length. Teams may submit incomplete solutions. The use of AI tools is allowed but optional; compliance with EuroMCM AI usage policy is required.

5 Links

- The European Green Deal: Striving to be the first climate-neutral continent
- The Just Transition Mechanism: making sure no one is left behind
- Eurostat Database
- European Environment Agency (EEA) Data Hub
- EU Energy Poverty Advisory Hub
- OECD Environment and Climate Data

6 Glossary

Just Transition: A fair and inclusive shift to a climate-neutral economy, ensuring no worker or community is left behind.

Energy Poverty: When households cannot afford or access essential energy services for a decent living standard and health.

Carbon Leakage: Occurs when companies move production from the EU to countries with weaker climate policies, potentially increasing global emissions despite domestic regulations.