

**Project Proposal**

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***“Predicting the Effects of Renewable Energy Production on the GDP”***

The shift to alternative energy is crucial for countries aiming to reduce their carbon footprint. As businesses and governments focus more on sustainable energy, it's essential to understand the economic impacts of this transition. This project will predict how GDP is likely to change with renewable energy production, talking in depth about each energy source and its effect on the economy and GDP.

Economically, as Canada intensifies efforts to reduce carbon emissions, policies like the carbon tax are becoming important to its strategy. The carbon tax penalizes high carbon emissions, offering an economic incentive for businesses to transition to cleaner and renewable energy sources. This poses a growing financial burden on companies, especially in energy-intensive industries, unless they adapt quickly.

Understanding the relationship between renewable energy production and economic growth will help the companies navigate this transition effectively. It will also enable the firm to capitalize on new opportunities, such as carbon credits and government incentives while avoiding the increasing costs associated with fossil fuels and carbon-intensive practices.

The dataset comes from [Our World in Data](#), featuring historical information on renewable energy production, usage, and economic indicators. It includes:

- Country-level renewable energy production data.
- GDP data from national economic reports.
- Historical data spanning several decades.

The data will be pre-processed to extract relevant features and cleaned to ensure accuracy for the prediction models. More data may be needed as we research deeper in the topic.

Here are the references for the datasets and resources for our currently planned project outline:

1. **Country-level Renewable Energy Production Data (Our World in Data)**  
<https://ourworldindata.org/renewable-energy>
2. **Energy Production and Consumption Data (Our World in Data)**  
<https://ourworldindata.org/energy-production-consumption>
3. **Share of Electricity Production from Renewables (Our World in Data)**  
<https://ourworldindata.org/grapher/share-electricity-renewables>
4. **GDP Data from National Economic Reports (World Bank)**  
<https://data.worldbank.org/indicator/NY.GDP.MKTP.CD>
5. **GDP Data from National Economic Reports (OECD)**  
<https://data.oecd.org/gdp/gross-domestic-product-gdp.htm>