

SEES 502 Energy Systems and Sustainability Fall 2024-2025 Project Proposal

Project Title: An Interactive Educational Tool for Energy Mix effect on CO2 Emissions

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Abstract

The goal of this project is to create an interactive educational tool that will help students understand the significance of renewable energy on advancing sustainability. The tool, which uses comprehensive datasets from the Our World in Data organization, allows users to investigate and analyze the impact of renewable energy adoption on CO2 emissions. Users can view the amount of energy consumption from various sources for all countries during the previous 35 years using simple visualizers, allowing them to see the direct impact of these changes on global greenhouse gas emissions. The program will also allow the user to display CO2 emissions based on any energy mix from all sources. The project can be used as an educational tool in the SEES 502 course, allowing students to better understand the impact of using renewable energy sources on CO2 emissions.