**Project 1 – Proposal Project**

**Project Title:** New technologies to support the Clean Energy transformation and Net Zero target in the world.

**Project Team members**

Ana Carolina Connors

Asfia Khatoon

Amy Zhang

**Project description/outline**

We are going to talk about clean energy focus on investment in new technologies, energy transition and greenhouse emissions.

1. Clean Energy and greenhouse gas emissions (CO2 emissions) from Energy,
2. Investment in innovation in clean tech and services / clean technology.

Please find below details of the project proposal:

Future analysis of Greenhouse emissions (CO2 emissions)

* + Investigate reduction over the last five years and future projection? Per country, industry, and sector.

Which country has presented a reduction and is on track to achieve the Net Zero 2050?

* + Have emissions been managed/tracked? Yes, please see report annual energy management report.

Energy Technology solution for clean energy

* + Accordingly to EIA, there are 400 individual technology designs that contribute to reduce the CO2 emissions along different value chains across the whole energy system.
  + Clean Technology / What are these technologies?
  + What country has more invest in new energy technology, and what are the main energy transformation (power, heat, biofuel, hydrogen, ammonia, etc…).

**Dataset to be used**

For this project, we will be using files from Government websites. We will use data mainly from IEA ((International Energy Agency), World Bank Office of Energy Efficiency and Renewable Energy and Data.world.

**Breakdown of Tasks**

TBD

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| Ana Carolina | Asfia | Amy |
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**Project planning/Schedule**

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| **Week 1** | Data cleansing, transformation, and format using Pandas. |
| **Week 2** | Coding |
| **Week 3** | Coding |
| **Week 4** | Working with Visualization and API graphics. We can show in the map the country that has reducing greenhouse gas emissions. |
| **Week 5** |  |
| **Week 6** | Working on presentation, reviewing work and finalize final presentation. |

**Sources**

* [IEA – International Energy Agency - IEA](https://www.iea.org/data-and-statistics/data-products?filter=free)
* [lundgren-lindqvist\_iea\_technology-guide\_globe\_final\_web2 copy (windows.net)](https://iea.blob.core.windows.net/assets/355d9b26-b38c-476c-b9fa-0afa34742800/iea_technology-guide-poster.pdf)
* [A new energy economy is emerging – World Energy Outlook 2021 – Analysis - IEA](https://www.iea.org/reports/world-energy-outlook-2021/a-new-energy-economy-is-emerging)
* World Energy Investment 2021 Datafile - [World Energy Investment 2021 Datafile - Data product - IEA](https://www.iea.org/data-and-statistics/data-product/world-energy-investment-2021-datafile)
* [Annual Energy Management Data Report | Department of Energy](https://www.energy.gov/eere/femp/downloads/annual-energy-management-data-report)

Chart

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