**PART 1 SDG SELECTION AND PROBLEM DEFINITION**

***Affordable and Clean Energy***

Affordable and Clean Energy is one of the 17 Sustainable Development Goals (SDGs) established by the United Nations in 2015. It focuses on addressing the global energy challenge by providing access to reliable, sustainable, and affordable energy in powering economic development, improving living standards, and mitigating climate change. This SDG seeks to accelerate the transition to clean energy sources and enhance energy efficiency to ensure a sustainable and resilient energy future.

Access to affordable and clean energy is crucial for eradicating poverty, improving health and education, promoting economic growth, and combating climate change. By expanding renewable energy sources and adopting energy-efficient technologies, this SDG aims to create a more sustainable and equitable energy system that benefits both present and future generations.

**Affordable and Clean Energy Initiatives**

Renewable Energy Expansion

Promoting adopting and deploying renewable energy sources such as solar, wind, hydropower, and geothermal energy. It involves supporting renewable energy infrastructure development, facilitating investment in clean energy projects, and implementing policies that incentivize the use of renewables.

Energy Access for All

Provide universal access to modern and affordable energy services, particularly in underserved areas. It involves improving access to electricity, clean cooking solutions, and productive energy sources for marginalized communities, thereby enabling economic opportunities, improving health outcomes, and enhancing quality of life.

Energy Efficiency Measures

Microfinance initiatives have been widely implemented to provide small loans and financial services to individuals, particularly women and marginalized groups, who lack access to traditional banking systems. By facilitating financial inclusion, these initiatives aim to empower individuals to start small businesses, generate income, and lift themselves out of poverty.

**Why Affordable and Clean Energy is Important**

**Environmental Sustainability**

Affordable and clean energy is essential for mitigating climate change and promoting environmental sustainability. Fossil fuel-based energy sources are the primary contributors to greenhouse gas emissions, which are a leading cause of climate change. By transitioning to clean energy sources such as solar, wind, hydro, and geothermal power, we can significantly reduce carbon emissions and decrease our reliance on finite fossil fuel resources.

**Poverty Reduction**

Access to reliable and affordable energy services is crucial for improving living conditions and creating economic opportunities, particularly in low-income communities. Affordable energy allows businesses to operate efficiently, promotes entrepreneurship, and stimulates job creation. It enables industries to flourish, driving economic growth and development. With reliable and affordable energy, small-scale entrepreneurs can establish and expand their businesses, leading to increased income and improved livelihoods.

**Closely Linked to other SDGs**

It intersects with goals such as good health and well-being, quality education, gender equality, and industry innovation, among others. Access to reliable and clean energy is essential for improving healthcare services, powering medical facilities, and ensuring the proper storage and distribution of vaccines and medications. It enables the deployment of sustainable and efficient technologies in healthcare, contributing to better health outcomes and improved well-being. Moreover, affordable energy facilitates access to education by powering schools and providing electricity for educational resources, such as computers and internet connectivity.

**Affordable and Clean Energy Statistics**

**759 Million People**

According to the [World Bank](https://www.worldbank.org/en/home), 759 million people still live without electricity, with about half of them living in fragile and conflict-affected settings.

**4% Annually by 2030**

The [International Energy Agency](https://www.undp.org/) (IEA) shows annual energy efficiency progress from 2.2% today to over 4% annually by 2030 in a move that would create jobs, expand energy access, reduce energy bills, decrease air pollution, and diminish countries’ reliance on fossil fuel imports – among other social and economic benefits.

**2.4 Billion People**

[WHO](https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health) reports 2.4 billion people worldwide (around a third of the global population) cook using open fires or inefficient stoves fueled by kerosene, biomass (wood, animal dung, and crop waste), and coal, which generates harmful household air pollution.

How to Help Affordable and Clean Energy Initiatives

**Support Healthcare Organizations**

Healthcare organizations play a vital role in providing essential medical services, conducting research, and promoting public health initiatives. By donating funds or volunteering your time and skills, you can directly support these organizations in their efforts to improve healthcare access and quality.

**Take Care of Your Own Health**

One of the most impactful ways to promote good health and well-being is by taking care of your own health. Adopting healthy lifestyle habits, such as maintaining a balanced diet, engaging in regular physical activity, getting enough sleep, and managing stress, can significantly improve your overall well-being.

**Educate Others**

Education and raising awareness are essential in promoting good health and well-being. By sharing accurate and reliable information about health-related topics, you can help others make informed decisions about their well-being. This may involve promoting healthy lifestyle habits, discussing the importance of preventive healthcare measures, or addressing specific health issues that affect your community.