Most Promising Problem: Renewable Energy Systems in Nigeria

| **Professional & Societal Factor** | **Relevance** | **Associated “Need”** |
| --- | --- | --- |
| Public Health and Safety | It can enhance healthcare facilities ensuring availability of essential services and medical equipment. | Many healthcare facilities suffer from frequent power outages, hindering delivery of essential health care services. |
| Global and Cultural | Lack of efficient energy systems in particular areas limits global connectivity of people.  Nigeria can contribute to the global goal of limiting temperature rise and reducing greenhouse gas emissions. | By diversifying its energy sources and reducing reliance on fossil fuels, Nigeria can promote sustainable economic growth and reduce the vulnerability of its economy to fluctuations in oil prices |
| Societal | Communities are strengthened through self-sufficiency. Through lessened reliance on fossil fuels, predatory oil companies are less likely to prey on these areas. | Should allow for communities to grow together through self-sufficiency with new energy systems |
| Environmental | Makes solar panels more efficient, more economical, easier to manage, leads to less greenhouse gas emissions. Clean and renewable energy eliminates the needs for fossil fuels being combusted. This prevents worsened climate disasters, health problems, and dependence on fossil fuels. | Cleaner energy sources are needed to combat the negative effects of climate change. |
| Economic | Users are lower income in more remote areas. Energy created by solar panels can be cheaper than unpredictable prices of oil and gas. Renewable energy can also lend itself to a novel workforce. | Affordable products to provide energy sustainably and consistently. Creating new infrastructure also creates jobs, stimulating economic growth in these countries. |

Identify users that have been excluded by existing designs within the Problem

area of focus and/or those that could easily be excluded by a new design without

consideration of biases.

1. Rural communities in Nigeria still lack access to electricity.
2. Those in low income households can’t afford the high cost of installing renewable resources
3. Those in areas affected by frequent power outages