

## The Solar Frontier: Methodologies of Clean Energy Finance in Marginalized Communities

With a heightened demand of energy production and electrical capacity looming in the not so distant future, it is apparent to civilians, corporations and organizations alike that the world must adopt an alternative clean source of fuel for our market demands. In pondering on the emergence of renewable energy technologies present on the national and global sphere, the sector of solar energy comes to mind. The use of accessible forms of solar energy, one of the cleanest and most abundant renewable energy sources on the planet, should be widely adopted in order to foster a more equitable and sustainable future. In the transition from a long withstanding reliance on fossil fuel developments to a just transition into a foundation of renewable energy; ideological frameworks of environmental justice, utilitarianism, environmental ethics, and sustainable development must be kept in mind. This presentation showcases and analyzes various case studies of imbalances of ideological frameworks relates to the use of solar energy as well as walkthroughs of the energy economies that are present in these areas.

I assess how successful the strategy of protecting marginalized, black, brown, and indigenous communities from being impeded by the negative effects of fossil fuel infrastructure, namely compressor stations, power plants, pipelines, as well as external pollution sites like landfills and waste treatment centers. Unfortunately, many of the communities that house such fossil developments are in areas which are disproportionately exposed to racism, cultural barriers, socioeconomic stressors as well as historical segregation and environmental degradation. I explore the intersection of solar energy as a factor of immense economic improvement as the frameworks of environmental justice, environmental ethics, utilitarianism and sustainable development. In essence, those a part of the dynamic energy economies of solar energy have the duty to offset the financial burdens of emerging renewable energy technologies in marginalized communities of color. When the country prioritizes sustainable, affordable, and accessible energy needs of diverse communities of the US, this signals that renewable energy technology will continue to develop and inputs to be more accessible for decades to come ultimately allowing for a net zero carbon future.