United Nations

ECOSOC

Sustainable Energy with a focus on Economic and Equitable Solutions



About the Chairs

Head Chair - Albert Yang

Albert is a senior at Gunn High School and is entering his 4th year with Gunn MUN, and is excited to chair for ECOSOC for his last year at GMUNC. Deeply passionate about biological and chemical sciences, he hopes that this committee, on the topic of environmental sciences, is able to generate creative and inspiring solutions to this climate crisis. Outside of MUN, Albert enjoys biking, reading, and avoiding the commonapp. He looks forward to all of the well-researched and creative position papers!

Assistant Chair - Milo De Giere

Milo De Giere is currently a sophomore at Gunn High School and is honored to be serving as co-chair of this year's GMUNC ECOSOC committee. Milo is now entering his 2nd year in Gunn MUN. During this time, he has developed a deep interest in human rights advocacy and environmental sciences. The community and platform MUN has given immediately captivated his interest. This year, as a chair, he hopes to help facilitate an amazing learning experience for everyone through this committee, fostering an environment where delegates can enhance their speaking skills and further explore diplomatic debates. Milo finds all kinds of science intriguing, being especially fond of biology. Outside of academics he enjoys volunteering at the Palo Alto Art Center in the ceramics studio, where he can be found many days of the week working with children of all ages, creating things, and watching shows and movies. He wishes delegates good luck on their position papers and is excited to assist throughout this enriching experience.

Committee Information

GMUNC XI is a one-day conference that will be hosted on **October 19th at Henry M. Gunn Sr. High School** (780 Arastradero Rd, Palo Alto, CA 94306).

Position paper guidelines are available on the **GMUNC** website.

Please submit position papers by October 12th (midnight) to be eligible for research awards. Please submit position papers by October 18th to be eligible for all other committee awards. Extensions may be given on a case-by-case basis, but no position papers will be reviewed or accepted after October 18th. There are no exceptions for the October 18th hard deadline. When submitting a position paper, please title the email as "[Delegate Name] Position Paper Submission" and submit a PDF. If these guidelines are not followed, that submission may be disregarded and not considered for any award. Additionally, although the GMUNC Position Paper Policy states that no position paper should exceed 3 pages, because of the fact that this is a double-delegate committee, we will be accepting a maximum of 5 pages. Please only submit one position paper per double-delegate!

Please submit all position papers and committee-related questions to: gmuncecosoc@gmail.com

Please visit **gmunc.onrender.com** for more information, and please email **gunnmodelunclub@gmail.com** for any other general or conference-related questions.

Letter from the Chairs

Hi delegates!

We'd like to warmly welcome you to GMUNC XI's ECOSOC (Economic and Social Council) committee! This year's ECOSOC committee is focused on the subject of "Sustainable Energy with a Focus on Economic and Equitable Solutions". That may sound like a mouthful—which it definitely is—but we have intentionally set up this committee to encourage (potentially heated?!) debate by creating a polarized committee in terms of solutions for this climate crisis. In the list of countries that will be present for this committee, there is a reasonable split between countries whose infrastructure and economic structure is heavily reliant on fossil fuels and countries that have been incredibly progressive in fighting climate change. Regardless of stance, we will be approaching this climate crisis from a social and economic standpoint, which can either be from a very personal perspective for each country or from a completely objective perspective pertaining to our entire world. Please keep an eye out for this when reading through this background guide and researching for your assigned country!

GMUNC has been designated as a "Novice Conference", which means that we *will* be going over basic parliamentary procedures in committee, but we encourage you to get familiar with them before committee starts, so that you won't be overwhelmed. (Check out <u>uconnmun.com/parliamentaryprocedure</u>)

In terms of research, we aim to hold this committee at an incredibly liberal standard for suggested solutions, both in position papers and during committee. In other words, we strongly encourage delegates to try new solutions, even if they sound wild (like developing a program to develop and institute nuclear reactors in every country); just make sure to consider all economic and social costs and benefits, and to thoroughly elaborate! We'd like to place a strong emphasis on writing a unique and concise position paper that either has a well-executed classic solution or a more creative and innovative solution—Or, even better, both!

If you have any questions, don't hesitate to email us at gmail.com (if it is a question, please CC gunnmodelunclub@gmail.com). We look forward to reading all of your position papers!

See you in committee, Albert and Milo

Introduction

Climate change has indisputably been a popular focus of debate around the world over the past decades, especially in the United Nations. Even so, global carbon emissions have been on the rise—even in the most recent years. It is more critical now than ever, that we tackle this developing problem head-on.

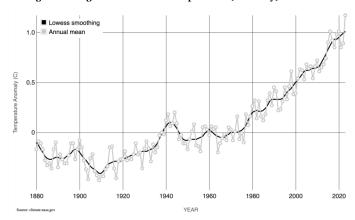
This committee aims to create a polarized committee centered around a debate on sources of energy and energy infrastructure—especially in developing regions around the world. This committee and background guide will cover the economic, social, and political implications of the oil industry, renewable energies, and everything in between.

Although debate within the committee will not be restricted to energy sources and infrastructure, the committee's premise has been designed to discuss (broadly) the continuation or discontinuation of oil production, "green" energy, and new innovations or technologies pertaining to this subject. That being said, we still encourage delegates to pursue other alternative avenues of combating climate change while keeping national (and perhaps even global) interests in mind, such as agriculture and transportation policies.

Status Quo

As outlined in the Paris Agreement and countless scientific conclusions, our human species must reach a global net carbon emission of zero by 2050 to be able to reverse the fatal effects of climate change on the ozone layer and our world. One of the checkpoints identified is reaching a 45% decrease in

Change in Average Global Surface Temperature (Annually)



carbon dioxide emissions by 2030 (from 2010). Additionally, the Paris Agreement, first undertaken by the United Nations in late 2015 as an initiative to stop climate change, set a clear

threshold of 1.5 degrees Celsius increase in average global temperature (above the pre-industrial average global temperature)—yet our world is hurtling past that mark, having already hit that threshold in September of 2023. Moreover, with present policies, an increase of 2.8C has been extrapolated for the coming years.

In the long term, this presents various risks to Earth's ecosystem, including more extreme weather events, rising sea levels, and other risks to marine and terrestrial ecosystems. Additionally, more radical weather patterns and climates affect many countries and agriculture. An increased rate of displacement due to flooding, droughts, and irregular weather patterns is a prime example of the dangers that countless regions and countries are expected to face in the following years. Although these changes in temperature and weather are ostensibly minute changes to the earth's environment, this threat quickly goes from theory to a much more imminent danger once we examine the impact of climate change on humans.

The Nuanced Impact of Climate Change

The "dangers" of climate change are "especially acute" for the over 900 million people living in coastal and low-elevation zones, as well as billions of others, as this global threat to both Aftermath of Hurricane Katrina, 2005

agriculture and livelihoods increases non-stop (U.N.

Secretary-General António Guterres).

An estimated 2110 million people in Bangladesh and almost 40% of U.S. residents could face displacement from permanent inundation. Globally, more than 114 million people have already been forced out of their homes, up from 110 million in May 2023. With the rising cases of displacement, a

new term has been made for these victims: Climate refugees*.

However, the impacts of climate change are much more complicated than just numbers. Climate change has not affected all communities equally. Of the millions of refugees, around 90% were found to be from low- and middle- income countries, an issue that "can lead to further

fragility" of the affected communities. This is because many natural phenomena that occur as an indirect result of climate change tend to be localized; for example, a third of the world's droughts are experienced in Sub-Saharan Africa. Climate change targets regions and communities unequally and has crippled many coastal, rural, and developing communities—many of which are severely underrepresented by the media and are unable to receive the aid that they need.

According to the FAO (Food and Agriculture Organization of the United Nations), many developing regions in the world have and continue to have a rate of undernourishment well above 20% of the population (notably in the Sub-Saharan and Eastern regions of Africa and in the Carribeans; Data range from 2005-2017). Droughts, flash floods, and environmental phenomena (all increasing in frequency due to climate change) are all major factors that can easily diminish a given year's harvest yield. Although the prevalence of proper nutrition has slowly increased over the years (despite the increase in the effects of climate change), the high susceptibility to disease, violent conflicts, and economic crises is apparent. The adverse effects of climate change that have caused a notable shift in the environmental factors that are, quite literally, plaguing these developing countries. Many violent outbreaks and conflicts have been attributed to the adverse effect of climate change on agriculture, livestock, and water supplies—which have hit these communities especially hard. The availability of water has been connected to regional conflicts (in many regions of Africa and the Mediterranean); Food insecurity in many fragile regions has similarly been linked to countless instances of increased presence of armed groups.

In addition, many of the detrimental effects of climate change (including but not limited to natural disasters, drought, farming, and transportation) have been strongly linked to economic disadvantages. A singular drought has been reported to have the potential to "lower an African country's medium-term economic growth potential by one percentage point" by the International Monetary Fund. Countless more factors, ranging from flash floods to locust swarms, can further suppress a region's economic growth. As exemplified, these humanitarian and economic impacts of climate change can, in turn, cause a negative feedback loop of lack of financial ability to respond to these disasters, causing further suppression of the region's economic capabilities.

Due to this underrepresentation of the impacted communities as well as survivorship bias, climate refugees are often underemphasized in the media. A realistic estimate of the number of people who have fallen victim to the effects

and it has also been very difficult to get a realistic estimate of them (partially due to the loose definition of Climate Refugees).

*Climate refugees have not yet been formally defined by the UN and do not yet qualify for asylum

The Energy Dilemma

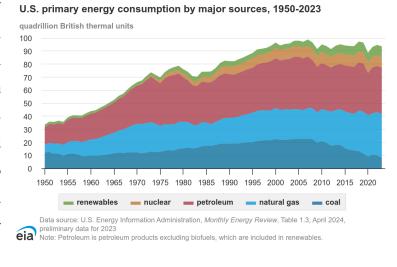
Natural Resources and Climate Change

Energy, quite literally, powers our modern world. From giving our infamous metropolitan cities their familiar fluorescent glow visible from outer space to manufacturing our everyday household objects, our consumer energy footprints have grown exponentially since the Industrial Revolution. But how big are our energy footprints actually, and what if we put this in numbers? As it turns out, our daily electricity usage is closely related to our carbon footprint. In the state of California, ~43% of electricity generation is renewable (U.S. Energy Information Administration, 2022), meaning the remaining ~57% of our energy usage has been from non-renewable sources, namely fossil fuels. However, that does not account for our entire ecological footprint, which also includes the energy (and labor) required to produce the food we consume daily and our household products. All this is to say, our daily lives are very closely intertwined with labor and electricity, or more holistically, energy.

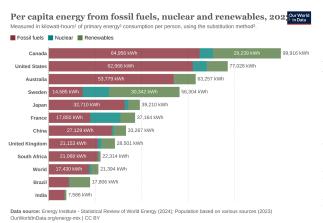
According to EIA, as of 2024, only 9% of the United States' energy consumption has been categorized as "renewable energy," although another 9% has been categorized as "Nuclear Electric Power." This leaves the remaining 83% under Petroleum, Natural Gasses, and Coal. Due to our energy-oriented society, energy consumption has been growing at a rapid pace, thereby

increasing the rate of greenhouse gas emissions proportionally. Although the proportions of the sources of energy have been shifting over time, the overwhelming trend depicts only a fraction of the energy consumed as renewable (even when considering nuclear energy), with an increasing

energy consumption each year. Many believe that our society's ecological awareness is shifting rapidly—with an undeniable increase in climate activism globally and the rise of online platforms spreading awareness—societal progress and technological advancements are also occurring faster than ever, resulting in a proliferating increase in the demand for energy.



In a quick breakdown of the sources of these energy consumptions in the U.S., transportation accounts for 29% of emissions; Industrial production and activities account for 30%; Commercial and Residential accounts for 31%, mainly for heating; and Agriculture



accounts for 10%, primarily from livestock. Over 94% of the fuel used for transportation is petroleum-based, which results in direct emissions. The majority of Industrial-use energy is from petroleum and natural gasses for production, with less than 10% being categorized as renewable. Residential emissions are largely mixed in terms of energy source, with roughly 45% of consumption coming from electricity (the

majority is still natural gasses)—but this can be deceiving since "62% of total electricity generation in 2022 [in the U.S.] was produced from fossil fuels" (EIA). Lastly, for Agriculture, the focus shouldn't be placed on energy consumption as a way of comparing emissions; rather, the United Nations Food and Agriculture Organization estimates that roughly 11.1% of total global emissions are from livestock—in a combination of their methane output (enteric fermentation) and ecological impact from mass-grazing. These sources and emissions are

important to note when discussing potential solutions, as these statistics can allow for targeted approaches to reducing emissions in a particular sector.

To Go Green Or Not To Go Green—That Is The Question

Many people have insisted that a complete swap from the current heavy reliance on fossil fuels to green energy is necessary to maintain a habitable planet in the future, but it is much more complex than it sounds. Granted, it is one of the most direct ways of attaining sustainability,

evident from the effects of greenhouse gasses. However, renewable energy is costly, takes a long time to implement, and is less economical than fossil fuels in the short term. Additionally, our current world's high dependence on fossil fuels for high-functioning systems and as a conventional source of energy adds a complex layer of implications to this switch. Additionally, OPEC countries (among many



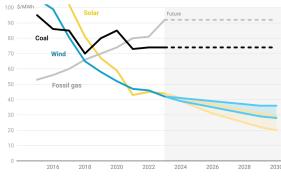
others), which are home to millions of people, have a heavy dependence on the oil industry. Nearly all global economic powerhouses have a strong stake in the oil industry. To attempt to implement a worldwide ban on fossil fuels would be a near-impossible battle when considering the inevitable resistance from these significant exporters—not to mention how detrimental it would be to smaller countries and OPEC, whose main exports and economic structure are based on oil. So when approaching this question, we must carefully consider (a) Magnitude (net benefit), (b) Time frame, and (c) Probability (minimum and maximum impact/potential, and how likely it is) of the proposed solutions.

For a brief overview of cleaner sources of energy that have been on the rise, there has been a substantial jump in the rate of solar panels, wind turbines, and nuclear power plant installations in the last several decades. As previously discussed, the human species has rapidly progressed as a society, building new industries, larger cities, and a rapidly increasing population; energy consumption has grown into a much larger issue and continues to grow by the

second. By 2040, global energy consumption is estimated to rise to 740 million terajoules from the current 580 million terajoules. A majority of this energy consumption is from fossil fuels, as discussed earlier, which emit large volumes of carbon dioxide and other greenhouse gasses—one of the primary sources of anthropogenic climate change. Although new "cleaner" sources of

Renewables will keep beating fossil fuels on cost

Analysts project that wind and solar will continue to get cheaper, falling further below coal and gas costs globally this decade.



Note: Shown is the levelized cost of energy, or a power plant's lifetime costs divided by its energy production. (S/MWh)

energy have been on the rise, namely solar panels, wind turbines, and even nuclear power plants—these technologies have proven to be very costly (initially) and require a substantial infrastructure to implement in the first place. Especially for larger constructs such as nuclear power plants, which can easily provide energy to over a million homes, they take a particularly long time to construct (upwards of 7 years) as well as an initial investment of

billions of dollars for construction—not to mention easily several millions of dollars in maintenance and nuclear waste disposal fees yearly. These steep infrastructure requirements severely limit the potential regions and countries that can maintain and even construct nuclear power plants in the first place. Although smaller-scale energy generators such as solar panels have a much lower bar for infrastructure required, these technologies can be a larger investment, considering its high initial price for individuals. Additionally, solar panels are much less effective (in terms of Cost Per Kilowatt-Hour) than nuclear power plants and wind turbines (On a related note, wind turbines can only reach their maximum efficiency in certain geographical regions). To take a step back, solar panels are much less incentivizing for individuals and are less efficient, resulting in a lower net benefit for its price compared to larger energy generators. These limitations are problematic if the goal is widespread installation of green technologies, especially for less affluent regions of the world.

Despite any and all inefficiencies with green energy, the fact stands that energy derived through those methods are sustainable. Renewable energy sources have been improving at an astounding speed—With more than a 40% drop in the price of installing solar power just in the last decade. Additionally, the cost of renewable energies have been and are expected to continue falling as new innovations and improvements are constantly made; a stark contrast to the rising

costs of fossil fuels, especially as the Ukraine-Russia war continues (due to the economic sanctions placed on Russia, one of the top global oil exporters).

Does this mean that fossil fuels are an obsolete energy source of the past? Not quite yet. Expanding on the point made earlier in this section, there is a heavy reliance on oil both for societal progress and for supporting economies globally. Going back to the OPEC (Organization of Petroleum Exporting Countries), whose member countries make up about 40% of global crude oil production, has an incredibly high dependence on oil exports. 90% of Saudi Arabia's export earnings and roughly 42% of its GDP are from its petroleum sector to name an example Many other countries, both members and non-members of OPEC, have a similar economic dependence on this natural resource (Kuwait, Libya, Iraq, Angola, Oman, etc.). In OPEC's 12 member countries alone, they house roughly 513,580 million people (as of 2024)—who all depend on the oil exports of their country to support their government, infrastructure, and daily lives.

Past Policies

As the issue of climate change intensifies, there has been a need for policies and agreements to combat the repercussions and ensure future habitability. A wide range of policies have been implemented in the past or are currently in place. Much of the globe has begun a gasoline phaseout; as of February 2024, all E.U. Countries have committed to banning the sale of new fossil-fuel cars by 2035, while 13 non-EU countries have signed onto the COP26 Zero EMission Vehicle Declaration committed to all sales of new vehicles being zero-emission globally by 2040. Many other countries and regions have announced similar official targets or plans to phase out gas vehicle sales, while others are working toward adopting such policies. Gasoline phaseout and other Zero-Emission vehicle targets have had their successes. Many have had clear and distinct deadlines outlined in policies. This allows infrastructures to prepare and gives direction to nations. Additionally, there has become a growing consensus for minimizing or eradicating carbonized transportation; this has led to discussions as well as exponential growth in E.V. car production and sales. This comes from gasoline phaseouts as well as the electric transportation incentives. However, Achieving a full E.V. adoption by a certain deadline requires

many adjustments to heavy gas-based industries and alterations to the power grids to accommodate the higher demand for electricity. These changes are expensive and a limiting factor for developing nations. Economic inequality is a prevalent factor in climate change solutions. As covered previously, a minimal amount of electricity is derived from renewable energy sources. The current fossil fuel-heavy electrical system would counteract much of what the policy is attempting.



Global Climate Commissioners and Leaders at COP24

Climate change concerns are discussed annually at the UNFCCC Conference of the Parties (COP), where progress on the overall goals of the UNFCCC to limit climate change is reviewed. The UNFCCC is an agreement between 198 parties to stabilize greenhouse gas levels to prevent dangerous human-induced interference with the climate system. From this have come many groundbreaking agreements, including the Kyoto Protocol and the Paris Agreement. A notable success of these conferences is the global participation. More participation from countries would increase potential progress toward reversing the repercussions of climate change. UNFCCC has been the birthplace of many landmark agreements; however, how effective have these been? The annual conference sets a place for frequent progress checks, a system that keeps nations accountable for climate-related concerns. Yet there is a lack of enforceable mechanisms; countries can commit to a goal but not be penalized for failing to meet them. It's also important to consider how much progress has come from these meetings; many ambitious plans are made with little to no progress.

One primary protocol, finalized in 1987, is The Montreal Protocol, which focuses on the ozone layer rather than climate change as a whole. The treaty requires countries to stop the production and consumption of ozone-depleting substances. It is signed by 197 countries as the first treaty in U.N. history to achieve universal ratification. This treaty has succeeded in slowing and reversing the increase of ozone-depleting gasses in the atmosphere, with nearly 99% phased out as of 2017. However, in an effort to replace the phased-out materials, there has been an increase in HCFCs, a substance classified as a powerful greenhouse gas that is contributing to climate change. The Kigali Amendment, signed in 2016, was added to combat this issue. This amendment establishes goals to reduce HFCs or HCFCs based on an economic categorization. The first group is committed to reducing the use of HFCs by 45% by 2024 and by 85% by 2036. The second group aims to reduce its consumption by 80% by 2045, with the third and final group extending this deadline to 2047. This amendment allows for more flexibility for developing countries. This policy currently seems on track as HCFCs are predicted to peak in the first decades of the 21st century and steadily decrease thereafter. The Montreal Protocol has been relatively successful, having universal ratification and leading to a near complete phaseout of substances like CFCs, meeting its originally set goal. Some complications had to be addressed; however, this serves as a prime example of how policies can be adjusted to account for consequences. Similarly to other policies comes the issue of the large technological shift and its drastic economic cost. The Kigali Amendment brings a unique approach to addressing economic concerns by implementing flexible deadlines for developing nations. Still, these processes are costly, but overall, this protocol can serve as an example for future policies, protocols, and goals due to its significant successes.

The Kyoto Protocol of 2005 was the first legally binding climate treaty. It required developed countries to reduce emissions by an average of 5% below 1990 levels and establish a monitoring system to track countries' progress. However, this protocol was unsuccessful in decreasing greenhouse gas emissions. Rather, they have increased since 1997, not decreased. Additionally, major carbon emitters such as China and India were not compelled to take action, and the United States' signature was withdrawn. This protocol was radical for its time, given its legally binding qualities.

Additionally, the Kyoto Protocol sets out a system that allows countries to trade emission reduction, boosting funding for projects that work toward global carbon reduction efforts. This provides flexibility and puts out a different approach to addressing the warming limit, as well as

combating a prevailing issue, funding. The Kyoto Protocol is limited to the countries that agreed to it; it excluded many key emitters, and the United States, one of the largest polluters, withdrew. A policy's progress is limited to those who participate. Among those who did participate, many of the goals laid out in the protocol plans were not met—and all in all, were not highly effective.

More recently, after two weeks of negotiations, the 2023 UN Climate Summer, COP28, a landmark agreement emerged that explicitly calls on all nations to transition away from fossil fuels. It recognizes the urgency of the climate situation, stating that "deep, rapid and sustained reductions" in emissions are crucial to avoid the consequences of exceeding the warming threshold. [First global stocktake https://unfccc.int/cop28] Previous international agreements were often criticized for not directly addressing the need to phase out fossil fuels COP28 explicitly calls for this, recognizing a major contributor to the issue. Recognition is a key step in making change. The agreement stresses rapid and sustained emission reduction. While the discussions and concepts of COP28 are progressive, there are not many firm goals or timelines set out to address these concerns. It also does not address a way to offset the political and economic challenges seen in many past policies.

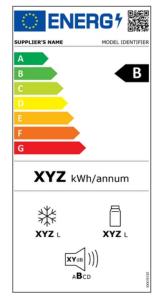
Potential Solutions

Many attempts have been made to salvage our planet, including (most notably) the Paris Agreement. However, despite being signed by countries whose total emissions account for over 55% of global emissions, we are not on track to meeting the goals set, as previously mentioned. So, if we are not on track to meet our climate goals despite all of our countless attempts towards transitioning to green energy, what can we do, especially in this committee?

Going back to the foundations of the causes of climate change and carbon emissions in the first place, we can switch our mindsets for new solutions and innovative technologies that can potentially help solve this climate crisis. A couple of ideas include Decreasing net energy usage through more energy-effective appliances, improving techniques for several high energy-consumption sectors, spreading awareness to promote more sustainable lifestyles, improving energy-producing capabilities and efficiencies in developing countries, and carbon capturing.

Many obsolete or aged electronic appliances and other technologies are incredibly inefficient when it comes to electricity usage; they require much more energy to get a task done because of the energy loss from inefficiencies in the mechanism and structure of the technology. For a sense of scale in the difference in energy consumption, the average LED lightbulb

consumes 15 Watts of energy to provide 1,500 Lumens of light. In comparison, the traditional lightbulb easily consumes 100 Watts for around 1,350 Lumens of light. This difference in the proportion of energy consumed per action performed can be similarly observed in many other appliances. A solution to this, which is already prevalent in the E.U. and many regions of the U.S., is to give energy-effective products an "Energy Label"—adopted in the E.U. as a ranking scale from A-G for brands—"Energy Star"—a label adopted by the U.S. government given to products with high energy efficiency—, and many other labels with similar functions used in countries around the world. Standardizing and increasing energy efficiency in products globally in this manner may be a



simple yet effective avenue for decreasing net energy usage, and in this case, promoting and potentially incentivizing energy-effective products may make a tremendous difference.

Similarly, promoting sustainable lifestyles may be vital in decreasing consumer energy consumption. The EIA has stated that, on average, the global primary energy consumption per capita sits at around 75 MMBtu (Million British Thermal Units), while the average energy consumption per capita in the U.S. has been around 279 MMBtu—well over 3.5 times the global average (as of 2022 and 2023, respectively). This begins to illustrate the disparities in energy accessibility and energy consumption per lifestyle in different countries and how it is crucial to invest in energy capabilities not just in our own countries but internationally.

Questions to Consider:

- 1. What is "**Technology LeapFrogging**" and how could it be applied in this context of Energy Inequity with the current economic disparities in-place?
- 2. What are your country's current policies on renewable energy?
 - a. How **accessible** is renewable energy in your country?
 - b. How much does your country **rely** on oil and other fossil fuels (In terms of economy and energy generation)?
 - c. Does your country encourage or discourage fossil fuels in any way?
 - d. What kinds of **subsidies** does your country have for different types of fossil fuels and renewable energy?
- 3. How can your country **Decouple its GDP from its CO2 emissions**?
- 4. [For Developing Countries] What does your country's current energy and electricity distribution look like?
 - a. Is there sufficient infrastructure to implement microgrids as needed?
- 5. What renewable energy-related or fossil fuel-related resources are abundant in your country? (Think **means of production** and **basic natural resources**)
- 6. What is the **cost breakdown** of renewable energy technologies and fossil fuels that make them as expensive as they are?
 - a. How can we make each more efficient and/or cheaper?
- 7. What are some new technologies that can be invested in to **decrease net carbon** emissions?

Please do **NOT answer these questions specifically and explicitly in your position paper. These questions are only meant to kickstart and guide your research in the right direction. It's also okay if you don't know the answer to some; These are some difficult questions!

***Much of the vocabulary in the **Questions to Consider** section has intentionally not been described in the background guide because of the potential bias specific sample answers may give when crafting a solution, and we'd like there to be a wide variety of solutions in this committee. Don't be afraid of missing a couple flaws in your solution and be creative!

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