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10/03/21

Dear future Alice Lu,

I am writing to you, Alice Lu in the future, to inform you about the current obstacles revolving around a prominent factor of our era. I hope this will also sway you to reflect upon the situation you are currently in now, and allow you to acknowledge whether or not these dilemmas have been resolved or subsided. Hence, I would like to speak of something truly pivotal to humanity; that is, energy. We revolve around energy for society and the economy to function and excel, whether it be for residential, commercial, transportation, industrial, and plentiful more constituents. However, this mass use of energy tallies up to both upsoaring and detrimentally devastating turns of events. Whether it may be energy poverty, pollution, overuse, demand, land destruction, disputes, and more, it is comprehensible that our world will eventually be corrupt along with the other concomitant issues existing worldwide. I will go in-depth on each of these issues so I am able to permanently retain my consciousness on energy issues in this letter and so I in the future can possibly reflect on these same energy issues and whether they have halted or subsided.

I will commence with the perplexity of energy insecurities or energy poverty. Energy poverty is defined as an individual, household, community or large areas with a shortage of access to basic provisions of energy services including heating, cooling, electricity, etc. This issue is prominently initiated by a lack of finances/low income, having poor energy efficiency, and/or having high energy bills/expenses. Energy poverty is an obstacle that impacts an estimated more than one billion people worldwide, primarily in households and buildings within developing countries due to the unavailability of constant energy. However, those living in the revolutionary, industrialized society also struggle to afford sufficient energy to meet their basic needs due to costly financial struggles. The extent to which availability of basic energy services such as electricity is crucial for basic wellbeing and living, but varies

considerably between different communities, regions and nations, depending on factors such as culture, lifestyle, climate, and more. Yet the majority with energy poverty will experience a plummet in their opportunities to achieve basic needs like healthcare, education, and job opportunities. Energy poverty in households also generally affects the residents in devastating ways, including limited access to proper heating for cooking and warmth, and limited access to electricity for powering numerous appliances needed in our day-to-day lives. Many also experience unsanitary conditions and improper ventilation in their homes without adequate amounts of energy, resulting in health issues.

The next issue I sought to discuss is a principal factor of energy issues; energy pollution. Though certain and specific forms of energy creation possess lessened pollution or what we refer to as clean, renewable, or zero-emission energy, which includes solar, wind, hydro, tidal energy, geothermal, and biomass energy the majority of the world relies on and utilizes what we remark as dirty energy. Dirty energy encompasses forms of energy such as coal, oil, gas, destructive dams, nuclear power, unsustainable bioenergy and waste-to-energy. This genre of energy is prone to all forms of prime pollution: air, land, and water. The production of dirty energy typically involves the use of burning the substance in the process of generating energy with it. Said combustion emits gases including carbon dioxide, sulphur dioxide, nitrogen oxides, particulates, and other substances into the atmosphere. The soaring demand for energy leads to more non-renewable energy being burned, implying that more of these gases and bits are seeping into the air. This presents numerous and dreadful pollutive effects occurring in the air, including global warming + climate change, health hazards, deterioration of wildlife, acid rain, smogs, and more. These pollutants not only impact the air but as well as the water and land. Energy industries release chemicals and also wastewater involved in the production of energy with their non-renewable resources; these substances are usually disposed of by releasing them into bodies of water, which again, builds up like air pollution and results in contaminated waters. This drives marine life out of their environment and intoxicates them. Other living organisms including us humans who rely on these bodies of water for cleaning themselves and consumption are also in crisis. Then we have land pollution, where the pollution of water and chemicals are absorbed into the land in the process of energy creation. This leads to the demolition of ecosystems and wildlife, negatively impacts agricultural practices, and risks our health.

With surging demands for energy as populations increase and as well as humanity wasting and overusing energy when unnecessary, this results in masses of energy frantically being produced. Our natural land is then replaced by industrial buildings, power stations, and reservoirs/sites that pry into the ground in search of resources, resulting in loss and destruction of the land. Non-renewable energy sources, an outstanding bunch of energy producers in our world, are required to be replenished constantly, thus land resources are diminishing. This will leisurely but absolutely conclude with the impossibility of producing non-renewable energy sources if production at this rate ensues. When acknowledging the long-term effects of losing non-renewable resources, I only am reminded of a sense of pure havoc, as the economies will have a likely probability of detrimentally faltering and our modern society must take a major alteration to adapt to a lifestyle without non-renewable energy. As a matter of fact, resources for energy are already lacking in numerous countries and places throughout our world, as defined in my energy poverty portion. This leads to nasty conflicts and disputes amongst our world, as nations clash for energy resources and control over energy producing sites.

As you can see from what I have written above, energy issues are something that must be dealt with sooner rather than later, before disaster erupts our universe even further than it already has. I hope that you, myself in the future, can observe a more robust and positive shift in our current energy system, and I thank you if you ever come back to read over this letter.

Sincerely,  
Alice Lu