Global Essay Competition 2024

Title: The challenge of our century: Tackling the clean energy scarcity around the world

Striving for more or thriving with less – What pressing scarcity do you see, and how do you suggest to tackle it?

Essay:

The first lesson of economics is scarcity: There is never enough of anything to satisfy all those who want it. – Thomas Sowell

It is often argued that if all human civilizations share a similar concept across different cultures, it is a human universal. And one story in particular is found all around the world: The theft of fire. Be it Prometheus[1], lKaggen[2], Nanabozho[3] or Mātariśvan[4], every continent has different versions of how humans were gifted the power of fire, our first source of light and warmth. It is therefore no exaggeration to say that the human need for energy may be as deep-rooted as many of our other needs and necessities. It has played a large and important part in developing our world to where we are now. Our ability to generate large amounts of energy is what drove our industries, economies and our societies and made us achieve heights many of our ancestors could only ever have dreamed of. And yet there is a problem with all this development. In our quest to master the scarcity of energy, our energy systems heavily rely on releasing carbon, methane and nitrous oxide into the atmosphere. These sources of energy, while cheap, burden all of humanity with a heavy price to pay if they are not changed soon. Despite this global problem, most countries focus on implementing individual solutions, if they are even implementing any solutions at all. This essay will argue why there is a pressing scarcity of clean energy, what the main problems with the existing approaches are, and how to help tackle these problems in order to balance our innate need for energy with a future for the next generations in mind.

Despite its reputation as a dry and purely academic pursuit, economic theories are some of the most relevant and thought-provoking subject matters that exist for our discussion on tackling the scarcity of cleaner energy. Beginning with the economic incentives for fossil fuels, there is a problem which is widely recognized: They do not price in the effects they have on the environment. No international body exists which could mandate such a tax on fossil fuels around the world, meaning that for our calculations and all practical purposes, coal, oil, gas and other fossil fuels are simply often much cheaper and more effective than any alternative[5,6,7]. Looking at which regions in the world are the strongest polluters[8,9], we find that most are the developing countries in which no money can be spent on higher energy prices by their people without foregoing other essential goods. These regions in the world are still at the initial phases of economic development, meaning their priorities are growing enough prosperity for their populations to sustain themselves with better life standards. As put well by Konstantin Kisin at the Oxford Union: *"…the future of this planet is going to be decided in Asia and Latin America. By poor people… one hundred and twenty million people in China do not have enough food… how high do you think carbon emissions rank on Xi Jinping's list of priorities? …. you are not going to get them to stay poor. You will not even get them to not want to be richer."*[10]. The painful tragedy for these people in less developed regions is the harsh choice between a better life today, weighed against a catastrophic change in temperatures and climates in the future. Economic factors and poverty drive people to continue using fuels which put increasingly more gases into the atmosphere, and this is sadly a fact that no amount of moral obligation towards the collective of humanity can repeal. A carbon sensitive conscience cannot put food on the table for a family, nor pay the bills to the landlord, nor can it pay for the medicine you may need for your child to survive.

So, what is to be done?

Most recent proposals on reducing carbon emissions rely on making carbon-based sources more expensive through price controls such as carbon taxes and making cleaner energy sources cheaper by comparison. While a genuine effort in trying to solve the problem, this essay argues that they have not done enough to achieve the results which are sorely needed. The "Emissions trading" mechanism implemented by many countries in the world[11,12] is one example. Companies trade with emission licences for which they pay a premium, thereby making fossil fuels more expensive. Price controls may work in some economies, namely those who can afford this strategy of higher energy costs, but they are a bad solution for most other economies in the world, due to the lack of capital their citizens face. But any artificial decrease in demand from more developed countries will mean that the oil prices will become cheaper as global oil production is tightly regulated by OPEC and does not adjust as it should under a free market[13,14]. This will encourage less developed nations who do not have such trading systems buying larger amounts of oil at a discounted price and emitting these "avoided" greenhouse gases. While these schemes may have reduced emissions in their respective countries, they have done little to stop global emissions from continuing to increase because emissions simply shift abroad. Indeed, we have good evidence that this is what is happening right now[14,15,16]. Solutions which focus on regulating fossil fuels in order to decrease them are falling precisely for the fallacy which was highlighted before: If oil is taxed more heavily in one country, this does not remove the properties which made it attractive in the first place outside its zone of jurisdiction. If richer countries can make using non-renewables more expensive this may alleviate the problem on a local scale. But local solutions to global problems are what made any efforts against this problem ineffective so far. The true underlying problem is not trying to price oil out of the market, as the underdeveloped countries do not have the capital, infrastructure or wealth to follow suit with this solution: *It is to find energy sources which are cheaper than oil outright.*

In order to achieve this, the world will need more time. Time to grow and invest in the research necessary which may one day allow us to move to energy solutions which impact the environment as little as possible. But unfortunately, our situation does not afford us to move slowly. The world will face many different challenges brought on by the onset of higher emissions, many of which may result in misery, war, poverty and delay our quest to solve the energy problem for decades. So, the world must act **now**. This essay is keenly aware that many different people are trying around the world to solve this problem, and that this is but one contribution to the solution which may unlock a better tomorrow. But therein lies the central proposal of this essay: A new organization can be built which allows this plurality of ideas to start impacting the world in real terms **now**. We, our shared humanity, do not have the luxury of thinking of this issue as a mere problem anymore. For the good of our species, and for the good of all life on the planet, we must declare war on it. As the fundamental problem is reducing emissions of gases worldwide, each and every tonne of emissions must have a bounty on its head. As we have seen, the approach of taxing emissions in order to reduce them is fundamentally not effective enough. We should therefore boost the other side of this scale: Make producing cleaner energy more profitable.

Today, developed nations are already paying a total amount of 210.7 billion in developmental aid[17]. A part of that sum, 9.3 billion, is specifically used for energy development[18]. This is only logical: If we are to avoid the implications of temperature rises all around the globe, energy spending abroad is nothing short of a solid insurance policy against future disasters. To effectively combat global emissions, we must utilise every opportunity to switch to energy solutions that cause fewer or no emissions (hydropower, nuclear power, solar energy, etc.). More importantly, we must do so where the price to switch is as cheap as it can be and identify all potentials in underdeveloped communities and regions across the world. Finding all of these instances would take several lifetimes if we were solving this problem with a taskforce. That is why we need to make this problem one which gets solved by everyone around the globe through the power of prices. As carbon is the biggest problem factor today, this essay calls for the OECD to establish a new organization called the "Carbon Reduction Commission" (CRC). Its mandate would be to create a framework of renumerating every Kilowatthour produced by countries

in regions which are economically disadvantaged. This subsidy not only works in a simple, straightforward manner, eliminating the need for a large regulatory bureaucracy and its associated costs, but gets straight to the point of boosting production of energy sources which will directly enter into competition with the local prices of fossil fuels. Companies which can verify the production of newly created energy reactors by a visit from OECD auditors will receive a fixed amount for every Kilowatthour produced. Energy sources which reduce emissions (i.e natural gas) will receive a smaller amount of money than other sources which eliminate any emissions outright, allowing all strategies for reducing emissions to be considered.

By providing a solid framework where outcompeting fossil fuels becomes a tangible option for at first small groups, then larger sections of the populations which first and foremost need energy directly will reduce the need for fossil fuels outright. And furthermore, if we combine regulatory taxation on oil in richer countries with aiding economically disadvantaged regions, cheaper oil prices will not impact global emissions nearly as much as they would under our current insular solutions. Of course, in order to identify the largest potentials and implementing innovative solutions with this direct subsidy, large amounts of research, ideation and vision is needed. And where to get this knowledge better than to include younger generations in formulating these solutions. By hosting an annual “Global Carbon Competition” (GCC), the OECD could encourage diverse teams from all around the world to apply with their concepts for identifying projects which would best benefit under this direct subsidy structure. By designing solutions, forecasting energy production and creating scenario analyses, these teams could compete for an annual prize pool for the most viable and actionable plans by a panel of experienced jurors. This annual competition not only highlights how much this framework can, has and will achieve, but also gives the younger generation a path to direct agency with which it can work to better the world we all live in.

In summary, this proposal calls for the creation of a new organization which also directly subsidizes cleaner energy production, rather than trying to curb emissions by *only* artificially raising prices. If implemented correctly, this two-pronged approach could start driving down emissions with funds which are already allocated in many different state budgets around the world. By tying in a tangible monetary incentive to inventing innovative solutions through the GCC and by implementing these solutions with the CRC subsidies, a powerful coalition against further carbon emissions could be built. Our globe is hard-pressed for actionable strategies which can reduce emissions ***now*** first and foremost. And if this new approach starts achieving results, revising and expanding it will lead to making a good impact in the world. We owe it to all of us to try. As was once said by James Clear:

Start now. Optimize later. Imperfect starts can always be improved. Obsessing over a perfect plan will never take you anywhere on its own.

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