

**ALTERNATIVE ENERGY REQUIRES THE MOST DEVELOPMENT TO
MEET THE GLOBAL NEEDS OF HUMANITY**

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Alternative energy is a global sector that requires the most development to meet the global needs of humanity. Alternative energy sources include solar, nuclear, wind, geothermal, bioenergy, hydro, and ocean energy. It's clear that life on Earth is impossible without energy. Just yesterday, humanity needed to replace depleting energy sources, namely oil, gas, and coal, with alternative ones because we don't fully understand the significance of these natural resources for our ecosystem and the planet as a whole. We should contemplate the importance of the natural balance that existed before the development of technological progress.

But how can humanity predict the amount of energy it will need for its own requirements? There is a vast amount of statistical data shared by scientists in scientific articles, interviews, and conferences. They all converge on one point - the demand for energy resources will continually increase. Picture 1 illustrates the amount of energy consumed in 2023 (478,056,865 terajoules), recorded by the author at 15 hours, 35 minutes, and 22 seconds on October 28, 2023.



Picture 1. Statistical data on energy. Recorded by the author at 15 hours 35 minutes 22 seconds, October 28, 2023. (The world counts. Energy)

What does this tell us? Global energy consumption, since 2000, has increased by about a third. We can see these changes in the following table:

Current year	Global energy consumption (terajoules)	Percentage
1980	300 000 000	300 %
2040	900 000 000	

Table 1. Calculated by the author based on the obtained data. (The world counts. Energy)

To confirm the reliability of the obtained data, we will take an officially confirmed diagram from The International Renewable Energy Agency (IRENA):

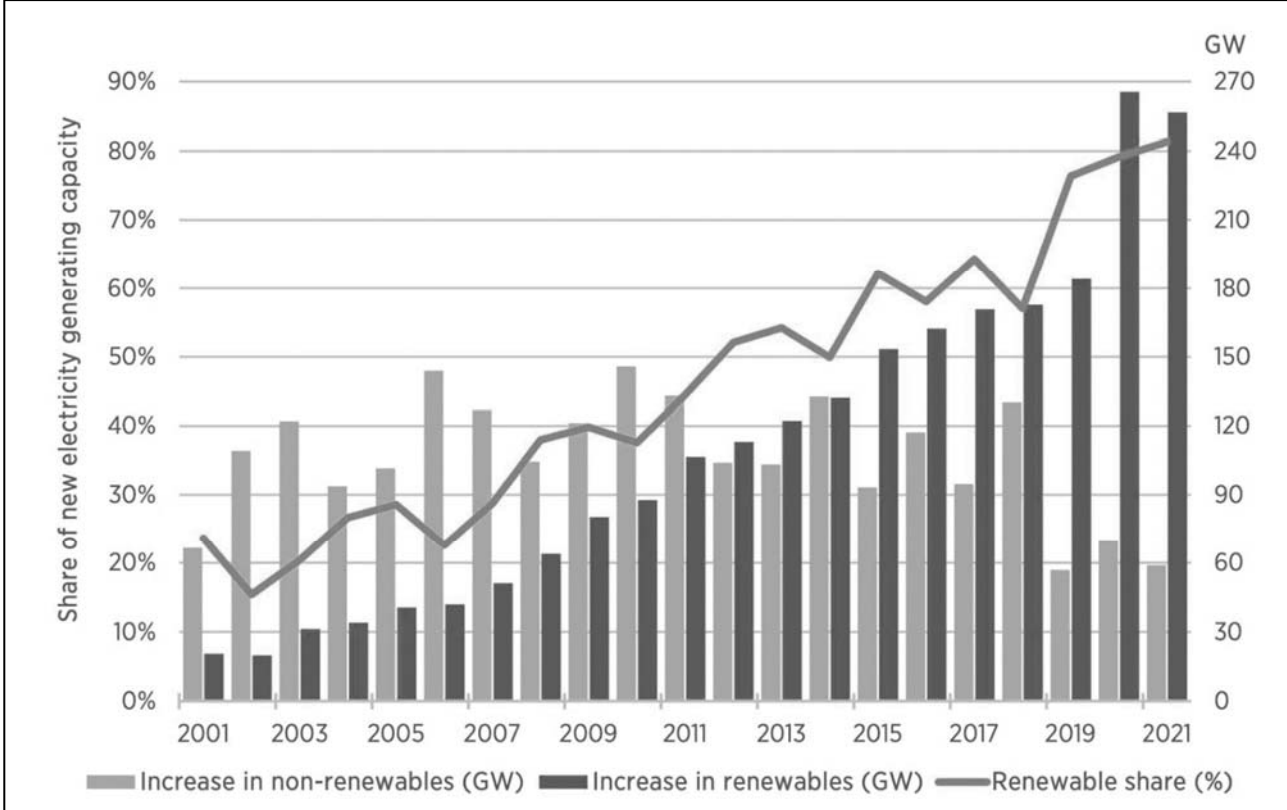


Table 2. Renewable and non-renewable share of annual power capacity expansion. (Avenston. IRENA)

2021 has reached 80%. Therefore, a 300% increase of the generated energy is a completely realistic indicator for 2040. But the author has cast doubt on the figures regarding non-renewable energy sources for the years 2019-2021. Have people truly started to divest from investments in oil, gas, and coal? In reality, it's only a matter of time before most countries will be able to autonomously provide their citizens with renewable energy. But even at this early stage, the so-called “green energy bugs” are beginning to emerge. And here is the reason why: the energy crisis is a crisis of climate and inequality. Historically, the premise that economic growth “lifts all boats” has justified maximizing growth, which “free market” proponents often interpret as demanding minimal regulation and redistribution (Science. The climate crisis is a crisis of inequality). But this growth requires energy, which largely comes from burning fossil fuels, the major cause of the climate crisis (Science. The climate crisis is a crisis of inequality).

So, when we talk about alternative energy, it's not just about technological progress, but also about economic, political, and social aspects. We can see how societal awareness aligns with narratives of environmental conservation. Therefore, from the perspective of logical positivism, alternative energy requires the most development to meet the global needs of humanity.

References:

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