

Original Paper

Energy Crisis, Global Warming and Wildavsky's Thesis

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Abstract

The now surging energy crisis with huge electricity prices add to the already ongoing climate crisis. Cheap electronic power would have made energy transition out of global warming a viable policy alternative. While the Wildavsky thesis offers a nice explanation of the energy crisis, it fails to account for global warming.

Keywords

Global warming, cost of living crisis, electricity, Wildavsky thesis, Lomborg

1. Introduction

The energy crisis is real now nobody denies. But many people still deny the reality of climate crisis. And some claim climate will deliver real consequences first 2030 or 2050 or even 2100. What then is the link between the energy crisis and the climate crisis?

The aim here is to discuss this question of energy and climate crises from the point of view of A. Wildavsky's thesis about fears in policy-making. The argument is that it explains rather well the retreat on nuclear power resulting in the energy crisis. However, it fails to account for the climate conundrum that he regarded as the mother of environmental scares. First some words on energy and two different perspectives on global warming.

1.1 Energy

Physics define "energy" as potential or actual capacity to do work. There is a variety of energy that resources can deliver. Humans and societies want these different resources. Figure 1 shows the major kinds of energy today.

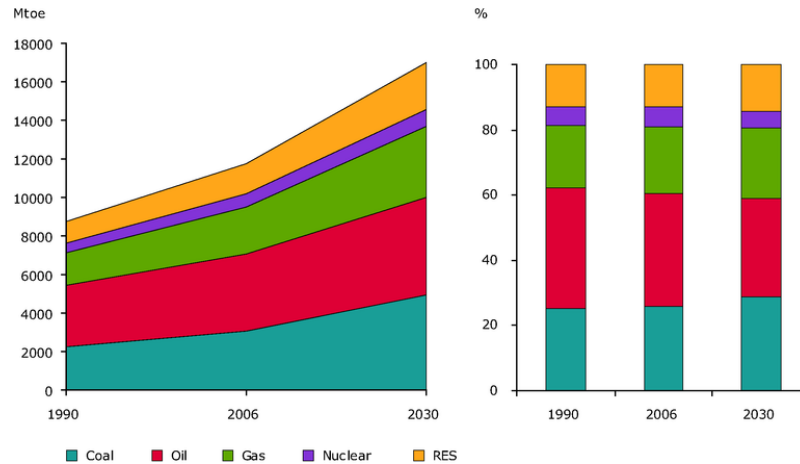


Figure 1. Energy Consumption by Source (EEA, 2022)

The energy profile in Figure 1 indicates two of the fundamental facts for early 21th century, namely: enormous growth in energy consumption and almost 90 reliance on fossils that result in CO₂s, the predicament of heating Earth.

2. Humans and Energy

Energy is so essential to humans. All need its functions, and current total consumption of energy is roughly 70 Gigajoules per capita. Yet, the differences in per capita energy access are enormous.

Table 1. Per Capita Energy Consumption in GJ (BP, 2021)

	2010	2019
Africa	15,4	15,2
Asia Pacific	50,7	60,9
Australia	240,5	233,2
Brazil	56	58,9
China	76,2	99,1
Germany	169,6	156,3
India	18,2	24,8
Japan	164,2	144,8
Middle East	135,3	146,2
Russia	195,1	204,9
South Korea	218,3	239,1
Sweden	229,8	223,4
United States	300,7	288,4

A human needs about 10 mega joules per day to survive healthy, or 3,8 GJ annually.

2.1 Fossils and Nuclear Power

World energy is not only very huge in consumption but also heavily skewed towards fossils. Although the reliance upon renewable energy resources keeps increasing, so does energy demand, meaning that fossils still supply most energy resources. And they give rise to the enormous spreading of CO₂s. COP22 tried to ban coal as energy source by 2030 against China and India's objections and ultimately veto. However, burnings of wood and charcoal without replanting give more CO₂ emissions.

2.2 Retreat on Atomic Power

It was once believed that fission energy would play a major role in total energy supply. It would produce electricity in large quantity when fossils would have shrunken or make too much CO₂s. However, events have made atomic power less attractive among the rich OECD countries. Some rich countries embarked on a policy of reducing atomic power stations or nuclear reactors, like for instance Sweden, Germany and the US. Here the Wildavsky thesis is relevant, as the Russian gas delivering dried up, raising prices and provoking the energy crisis.

It may be pointed out that some ecologists saw atomic power stations as the necessary step when moving from fossil dependence to renewables. Building much renewable energy sources would take time, but reducing fossil dependence was to be quick, especially coal dependence (Lovelock, 2015).

Atomic energy power has always been contested, but after the Fukushima disaster energy policy started to shift away from reliance upon nuclear options, especially among OECD nations.

2.3 Cost of Living Crisis

In the Winter, Spring and Summer of 2022 energy prices soured in the EU. The rise in electricity prices accounted to from a mere doubling to a ten times doubling. Against the background of strong general prices inflation this meant a cost of living crisis for the first time within the EU. Here is not the place to discuss the causes of inflation in the EU such the war in Ukraine, and expansion of fiscal and especially monetary policies. The emphasis was upon the policy retreat in energy policy away from the nuclear option. It led to the burning of oil and even coal.

Sweden is a good example. It closed down several nuclear reactors partly for fear of dangers, just to face now severe electricity shortages.

2.4 Energy Policy: The Wildavsky Effect

Sweden, Germany and the UK altered their atomic power policy in the wake of the Fukushima catastrophe. Why or for what reasons? Election considerations apart, the Wildavsky thesis points out the search for safety (Wildavsky, 1988). Nuclear power stations are highly complex with possibilities that something may go wrong. The worst would be the spreading of radioactivity.

Operating nuclear power station involves unresolved issues. What to do with the waste materials – in short or long terms? Radioactivity takes hundreds of years to diminish, and nuclear accidents may release lethal amounts of it. Thus, reliance upon nuclear energy involves the handling of a number of very serious threats.

Now how are there risks with nuclear power to be evaluated against the positives of this the strongest source of energy? And here is Wildavsky's main point: the post-industrial society gives priority to the threats ahead of the opportunities in its search for safety. The changes in political cultures with emergence of environmentalism and civil society have underlined the role of safety in policy debates, emphasizing that threats must be confronted now and not hived off to the future. The attitudes towards risk and opportunities as well as dangers and gains explain the retreat on atomic power, resulting together with the Ukraine war in a dismal energy crisis.

The Wildavsky thesis centers around the search for safety and not upon bounded rationality, as in his budget theory. Fears or dangers have not been theorized in this way before in policy research.

2.5 Dire Consequents for Climate Policy

The sharp rise in energy prices, especially the price of electric power, has provoked an abandonment of climate policy goals. With renewable energy far from fully expanded and little national gas from Russia, the shortfall in electric power has been met by e.g., Sweden by going back to burning oil for electricity. Sweden will not meet its goal of reducing CO₂s this year or maybe not even by 2030. The energy crisis makes the climate crisis worse in the short run, although countries like Sweden, Germany and France are reevaluating nuclear power, i.e., what is left of it. Faster expansion of renewables is necessary for COP goals of reducing CO₂s.

2.6 The Basic Difficulty in Global Climate Coordination: Reneging

In the book "Is it Really True" (Wildavsky, 1997) Wildavsky claimed to have found several more examples of "environmental scares", but he has been proven wrong about the climate crisis.

Why is global coordination on climate policy so ineffective? The present energy crisis in the EU shows that fossils will be resorted to when electricity is wanting.

The COP of the United Nations has gathered a wide club of states for the goal of reducing CO₂s. At the COP reunions governments promise energy transformation reducing fossils by some future date. But a promise without the sword is worth nothing stated Hobbes 1651.

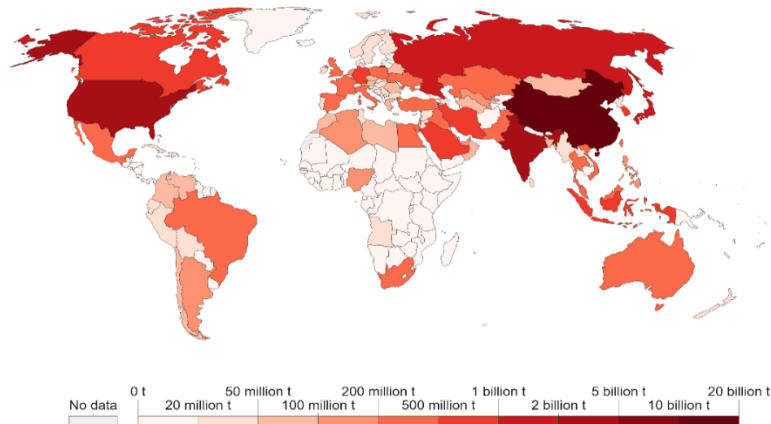
Lomborg has repeatedly stated that the current approach is ineffective (Lomborg, 2007). Lomborg is not a climate denier but he ridicules the COP approach.

The main problematic when arriving at a club decision when to eliminate CO₂ emissions is to come to an agreement which state is to decrease emissions most: the most polluting countries totally or the countries with highest CO₂ per capita. Figure 2 and 3 show the difference implications for governments in the COP club.

Annual CO₂ emissions, 2020

Carbon dioxide (CO₂) emissions from the burning of fossil fuels for energy and cement production. Land use change is not included.

Our World
in Data



Source: Global Carbon Project

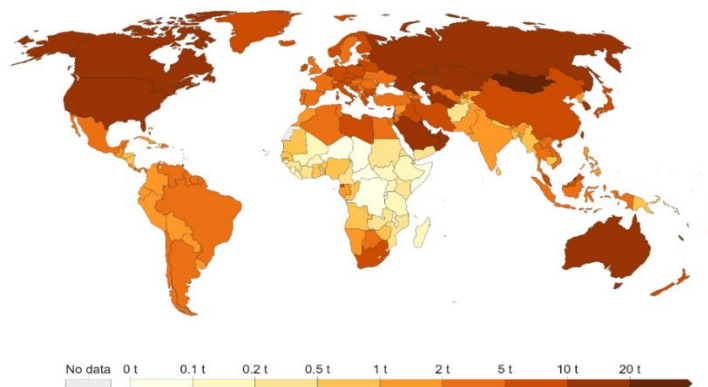
OurWorldInData.org/co2-and-other-greenhouse-gas-emissions/ • CC BY

Figure 2. Total CO₂ Emissions 2020 (Our World in Data, 2022a)

Per capita CO₂ emissions, 2020

Carbon dioxide (CO₂) emissions from the burning of fossil fuels for energy and cement production. Land use change is not included.

Our World
in Data



Source: Our World in Data based on the Global Carbon Project

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Figure 3. Per Capita Emissions 2020 (Our World in Data, 2022b)

Whatever accord is found within the COP, it can always be reneged upon, like now with electric power shortages.

3. Conclusion

The present energy crisis or electric power shortages is very negative for climate policy-making according to COP standards. At least in the short run fossils replace atomic power in several countries. In the long run renewables may be built up more rapidly. But what to do now when the needs for energy are strong? A good example is Japan besides Sweden and Germany. Finland is an exception, trusting nuclear power and telling about final storage.

The abandonment of nuclear power fits the cultural theory of risk by Douglas and Wildavsky (1983).

Confronted with the surge in evidence for global warming, this theory of risk in policy-making can only be saved assuming myopia—Why bother about temperature 2050 when the energy crisis today leads to a severe cost of living crisis?

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