

Failures of the Renewables Transition Era are Insults to Taxpayers



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The world's population depends on insulation, wires, computers, and fertilizers that "renewables" cannot provide.

Natural gas and crude oil are commonly needed fossil fuels to manufacture insulation, wires, and computers used in all methods of generating electricity. This is because components of natural gas and oil are essential feedstocks for creating plastics, which are used for insulation and many computer parts.

Fossil fuels are also required for the vast energy needed throughout the manufacturing process.

Insulation

Many of the polymer plastics used for insulation, like polyethylene (PE), cross-linked polyethylene (XLPE), and polyvinyl chloride (PVC), are made from feedstocks derived from fossil fuels. Natural gas liquids, primarily ethane, are heated in cracker plants to produce ethylene, which is then used to create polyethylene for electrical wires and cables. Crude oil fractions, particularly naphtha, are also used to make ethylene and other petrochemical feedstocks for different types of plastics.

- *Wind turbines and solar panels only generate electricity, so where is the transition away from fossil fuels?*

Wires

While wires themselves are made of copper, a high conductor of electricity, the fossil fuel industry is deeply connected to their production process. Insulation: The manufacturing of the insulating plastics for wires and cables depends on feedstock from natural gas and oil. Energy: The mining, refining, and manufacturing of copper wires is an energy-intensive process that relies heavily on fossil fuels.

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Computers

The production of computers and the electronics they contain is one of the most fossil fuel-intensive manufacturing processes per unit of weight. Components: Plastics derived from fossil fuels are used in many parts of a computer, including the casing, circuit boards, and connectors. Energy consumption: The energy required to mine, refine, and manufacture all the different components of a computer comes largely from fossil fuels. One 2004 study found that producing a single desktop computer required ten times its weight in fossil fuels.

- *Once again, wind turbines and solar panels only generate electricity, so where is the transition away from fossil fuels?*

Fertilizers

Conventional nitrogen fertilizers are made using fossil fuels, primarily natural gas, in a process that turns atmospheric nitrogen and fossil-fuel-derived hydrogen into ammonia. This

energy-intensive process, called the [Haber-Bosch process](#), is a major contributor to global greenhouse gas emissions. While phosphorus and potassium fertilizers are made from mined minerals, most agricultural production is reliant on synthetic fertilizers derived from fossil fuels.

Multiple sources estimate that approximately half of the world's food production is dependent on synthetic fertilizers

- Without the use of fertilizers, global crop harvests would be reduced by an estimated 30–50%.

Key statistics on global fertilizer dependency

- Feeds billions: Synthetic nitrogen fertilizers alone are estimated to feed roughly half of the global population. The Haber-Bosch process, which creates these fertilizers, is believed to have enabled the lives of at least 3 to 3.5 billion people today.
- Yield increases: Studies on crop production have attributed anywhere from 30% to over 60% of crop yield increases to synthetic fertilizer inputs, with some analyses suggesting even higher dependency in tropical climates.
- Specific crops: The dependency varies by crop and region. In some countries, a disproportionate amount of fertilizer is used for a single crop, such as maize in the United States, soybeans in Brazil, or palm oil in Malaysia.
- Different nutrients: While nitrogen (N) is the most widely discussed nutrient for food production, fertilizers containing phosphorus (P) and potassium (K) are also critical. Over half of the phosphorus fertilizer used is from nonrenewable sources.

Why is there such a high dependency on fertilizers?

- Population growth: The global population has surged from 1.65 billion in 1900 to over 8 billion today. This

growth has been supported by the dramatic increase in food production made possible by synthetic fertilizers.

- Increased yields: Fertilizers provide the essential macronutrients that plants need to grow. Without them, it would be impossible to achieve the high crop yields necessary to sustain the world's population on the existing amount of arable land.
- Land conservation: By intensifying agriculture on existing farmland, fertilizers reduce the need to convert more natural ecosystems into farms.
- Historical trends: Global fertilizer consumption has grown substantially over the last several decades, from 46.3 million metric tons in 1965 to 187.92 million metric tons in 2022. This growth reflects a widespread reliance on modern agricultural methods.

Net-zero ideologies ignore this fundamental truth that wind turbines and solar panels only generate electricity and cannot support the supply chain of products demanded by humanity and, by doing so, risk leaving future generations with scarcity and instability.

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