

THE ENERGY TRANSITION THAT ISN'T (2024 EDITION)

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One of the central premises of climate campaigners is that the whole world is now engaged in a rapid, unstoppable “energy transition” from hydrocarbons to electricity powered by renewable energy. This “storyline” is endlessly repeated and broadly accepted by the mainstream media in the OECD countries, and consequently accepted as beyond question by most members of the public. It provides much of the rationale for claims that countries like Canada should incur billions of dollars in costs to reduce GHG emissions.

The facts do not support the claim. For over seventy years, the [Statistical Review of World Energy](#) has been the most authoritative source of data on global energy supply and demand trends. In recent years the Review has added data concerning greenhouse gas (GHG) emissions. The 2024 edition of the Review, released in June 2024, contains full energy data for 2023 and for the preceding years going back to 2013. In this article, I will compare the facts concerning world energy trends as reported in the Review with the claims of climate campaigners.

Claim: *The World is on the Path to Radical Decarbonization*

In 2023, the world's consumption of all fuels totalled 620 exajoules.¹ Fossil fuels (oil, natural gas and coal) accounted for 81.4% of that, a reduction from 81.9 % in 2022. In other words, **in spite of over two decades of major efforts by the United Nations to promote emissions reductions and the expenditure of over USD 11 trillion on so-called “clean energy” alternatives, the world still relies on fossil fuels to meet over four fifths of its energy needs.** Nuclear energy and hydroelectricity provided 10.3%. Renewables supplied 8.2%, and most of that were biofuels. **Wind and solar energy accounted for about 4%.**

The trends in carbon dioxide emissions offer little or no support to climate campaigners' claims that radical decarbonization is occurring. Since 2013, total CO₂-equivalent emissions have increased from 32.7 billion tonnes per year to 35.1 billion tonnes per year, notwithstanding a 1.8 billion tonnes per year decline in 2020 due to the pandemic. **The increase in emissions from 2022 to 2023 was only 1.6%, but it was an increase, not a decrease.**

The data reported by the Statistical Review offers strong evidence to support the observation that countries are on two different tracks, with the OECD countries sacrificing their economic growth to reduce GHG emissions while the non-OECD countries increase energy use and the resulting emissions to meet the aspirations of their people. In 2023, the non-OECD countries

¹ An exajoule is a unit of energy in the international system corresponding to 947.8 trillion British thermal units (Btu) or 23.88 million tonnes of oil equivalent.

produced 68% of global emissions. China alone produced 32% of the world's GHG emissions. The United States produced 13.2% of global emissions, Canada 1.5% and Europe 10.0%.

From 2013 to 2023, the OECD countries reduced their annual emissions by 1.7 billion tonnes, while the non-OECD countries increased their annual emissions by 4.1 billion tonnes, about two and half times as much. The non-OECD, or developing countries, are driving global emissions trends.

Claim: Financial Institution Constraints on Investment are Impairing the Growth in World Fossil Fuel Production

According to the Statistical Review, **world production of crude oil and condensate liquids increased from 77.7 million barrels per day in 2013 to 82.6 million barrels per day in 2022, an increase of 6%.** The peak in liquids production was actually reached in 2018 when it reached 83.5 million barrels per day, but it declined in 2020 and is now recovering, driven by demand.

World production of natural gas increased from 3,366 billion cubic metres in 2013 to 4,059 billion cubic metres in 2023, an increase of 717 billion cubic metres, or 22%.

World production of coal increased from 8,258 million tonnes in 2012 to 9,096 million tonnes in 2022, a rise of 838 million tonnes, or 10%. The majority of coal production (82%) is in the non-OECD countries that are less vulnerable to pressures from climate campaigners. World coal consumption rose from 161 exajoules in 2013 to 164 exajoules in 2023.

In short, production and consumption of all fossil fuels are increasing despite the efforts of climate campaigners to restrict producers' access to funds.

Claim: The Countries of the World are Completely Electrifying their Economies

According to the Statistical Review, global electricity generation has increased from 23,469 terawatt-hours in 2013 to 29,925 terawatts hours in 2023, an increase of 28%. However, in 2023, the non-fossil fuel energy sources that combine to produce electricity (i.e. nuclear energy, hydro electricity and renewable energy) contributed 116 exajoules of energy, or 19%, to the total of 620 exajoules consumed. In other words, over four fifths of the electrical energy consumed comes from hydrocarbon sources. Renewables, at 51 exajoules, accounted for only 9%.

Claim: The United Nations Has Agreed that All Countries Must Reduce Emissions to Zero

The United Nations has been holding meetings ('conferences of the Parties') since the 1990's; 28 have been held to date. At the Kyoto Conference in 1997 they agreed that countries would seek to reduce their greenhouse gas emissions to 5% below 1990 levels by 2010. With the exception of a few European countries, no country met that target. At the 2015 conference in Paris, the United Nations gave up trying to set obligatory targets and instead asked countries to

submit voluntary plans every five years indicating how they would try to keep global emissions at levels that would prevent average global temperatures from rising above 2 degrees C. by 2100. These are voluntary, political targets, not legal ones, and the developing countries do not have to comply if this would place their economic development goals in danger.

The COP meetings have increasingly been dominated by disagreements between the developed and developing countries about how much financial aid the developed countries should provide to pay for the climate mitigation and adaptation efforts in the developing countries. **In 2023, the developing countries demanded at least US\$ 2 trillion per year from 2025 to 2030; the developed countries agreed to provide US \$13.8 billion over an unspecified period, 140 times less than what was demanded.** Without this financing, the developing countries will not sacrifice their economic development to serve western environmentalists' desires.

The data published by the *Statistical Review of World Energy* illustrates that almost all the key assertions of climate campaigners about present trends in global energy supply, demand and emissions are flawed. Most importantly, the "world" is not decarbonizing and is not undergoing either a rapid "transition" towards full electrification or replacement of fossil fuels by renewable energy. Voters in countries like Canada deserve to know the truth.