

The West Is Using COP27 To Shift Blame To Poorer Nations—Private Greed Prevails Over Humanity's Survival



[COP27](#) has begun in Sharm el-Sheikh. Although the Ukraine war and the U.S. midterm elections have shifted our immediate focus away from the battle against global warming, it still remains a central concern of our epoch. [Reports indicate](#) that not only are we failing to meet our climate change goals, but we are also falling short of the targets by a large margin. Worse, the potent [methane greenhouse gas emissions](#) have grown far more rapidly, posing as much of a climate change threat as carbon dioxide. Even though methane lasts for a shorter time in the atmosphere, [viewed over a period of 100 years](#), it is a more potent greenhouse gas than carbon dioxide.

The net result is that we are almost certain to fail in our target to limit global temperature rise to 1.5 degrees Celsius above preindustrial levels. And if we do not act soon, even a target of 2 degrees Celsius is hard to achieve. At this rate, we are looking at a temperature rise of 2.5-3 degrees Celsius and the devastation of our civilization. Worse, the impact will be [much higher](#) in the equatorial and tropical regions, where most of the world's poor live.

In this column, I will address two issues. One is the shift from coal to natural gas as a transitional fuel, and the other is the challenge of storing electricity, without which we cannot shift successfully to renewable energy.

The advanced countries—the U.S. and members of the European Union—bet big on natural gas, which is primarily methane, as the transition fuel from coal. In Glasgow during COP26, advanced countries even made coal the key issue, [shifting the focus](#) from their greenhouse emissions to that of China and India as big coal users. The assumption in using natural gas as a transitional fuel is that its

greenhouse impact is only half that of coal. Methane emissions also last for a shorter time—about 12 years—in the atmosphere before converting to carbon dioxide and water. The flip side is that it is a far more potent greenhouse gas. Its effects are 30 times greater over a 100-year period than an equivalent amount of carbon dioxide. So even a much smaller amount of methane has a much more significant global warming impact than carbon dioxide.

The bad news on the methane front is that methane leakage from the natural gas infrastructure is much higher, possibly as much as [six times](#) more—according to a March 2022 [Stanford University study](#)—than the advanced countries have been telling us. The high methane leakage from natural gas extraction not only cancels out any benefits of switching to natural gas as an intermediary fuel but even worsens global warming.

There are two sets of data on methane now available. One measures [the actual leakage](#) of methane from the [natural gas infrastructure with satellites](#) and planes using infrared cameras. The technology of measuring methane leaks from natural gas infrastructure is easy and cheap. After all, we are able to detect methane in exoplanets far away from the solar system. Surely, saving this planet from heat death is a much higher priority! The other data is the measurement of atmospheric methane conducted by the [World Meteorological Organization](#)(WMO).

The Environment Protection Agency (EPA) in the U.S. estimates that [1.4 percent](#) of all natural gas produced in the U.S. leaks into the atmosphere. But the March 2022 [Stanford University](#) study using cameras and small planes that fly over natural gas infrastructure found that the figure is likely to be 9.4 percent—more than six times higher than the EPA’s estimate. Even if methane leaks are only 2.5 percent of natural gas production, they will offset all the benefits of switching from coal to natural gas. “Clean” natural gas may be three to four times worse than even dirty coal. At least in the hands of capital!

The EPA does not conduct any physical measurements. All it uses to estimate methane emissions is a formula that involves a number of subjective factors, along with the number of wells, length of pipelines, etc. Let us not forget that there are many people in the U.S. who either do not believe in or choose to ignore the fact of global warming. They would like to take a crowbar to even a weakened EPA, dismantling all measures to reduce global warming.

The impact of methane leaks can be seen in another set of figures. The World Meteorological Organization [reported the biggest jump in “methane concentrations](#) in 2021 since systematic measurements began nearly 40 years ago.” While WMO remains discreetly silent on why this jump has occurred, the relation between switching to natural gas and the consequent rise of methane emissions is hard to miss.

The tragedy of methane leaks is that they are easy to spot with today’s technology and not very expensive to fix. But companies have no incentive to take even these baby steps as it impacts their *current* bottom line. The *larger good*—even *bigger profits*, but *over a longer time frame*—does not interest them. They aren’t likely to change unless they are forced to by regulatory or direct state action.

The cynicism of the rich countries—the U.S. and members of the EU—on global warming can be seen in their conduct during the Ukraine war. The [European Union has restarted some of its coal plants](#), increasing coal’s share in the energy mix. Further, the EU has cynically argued that developing oil and gas infrastructure in Africa is all right as long as it is [solely for supply to Europe, not for use in Africa](#). African nations, according to the EU, must instead use only clean, renewable energy! And, of course, such energy infrastructure must be in the hands of European companies!

The key to a transition to renewable energy—the only long-term solution to global warming—is to find a way of storing energy. Renewables, unlike fossil fuels, cannot be used at will, as the wind, sun, and even water provide a continuous flow of energy. While water can be stored in large reservoirs, wind and sun cannot be, unless they are converted to chemical energy in batteries. Or unless they are converted to hydrogen and then stored in either tank or natural storage in geological formations, underground or in salt caverns.

There has been a lot of hype about batteries and electric cars. Missing here is that batteries with current technology have a much lower energy density than oil or coal. The [energy from oil or natural gas is 20-40 times that of the most efficient battery](#) today. For an electric vehicle, that is not such a major issue. It simply determines how often the vehicle’s batteries need to be charged and how long charging will take. It means developing a charging infrastructure with a quick turnaround time. The much bigger problem is how to store energy at the grid level.

Grid-level storage means supplying the grid with electricity from stored energy. Grid-level batteries are being suggested to meet this task. What the proponents of grid-level batteries neglect to inform us is that they may supply power for short-term fluctuations—night and day, windy and non-windy days—but they cannot meet the demand from long-term or seasonal fluctuations. This brings us to the question of the energy density of storage: How much energy does a kilogram of lithium battery hold as compared to a kilogram of oil, natural gas, or coal? The answer with current technology [is 20-40 times less](#). The cost of building such mammoth storage to meet seasonal fluctuations will simply [exhaust all our lithium](#) (or any other battery material) supplies.

I will not address the prohibitive energy cost—electric or fossil fuel—of private versus public or mass transportation, and why we should switch to the latter. I will instead focus on addressing the larger question of how to [store renewable energy](#) so that we can run our electricity infrastructure when wind or sun is not there.

Is it possible that a new technology will solve this problem? (Remember the dream of nuclear energy that will be not only clean but also so cheap that it will [not need to be metered](#)?) But do we bet our civilization's future on such a possibility?

If not, we have to look at existing solutions. They exist, but using them means seeking alternatives to batteries for addressing our grid-level problems of intermittent renewable energy. It means repurposing our *existing* hydro-projects to work as grid-level storage and [developing hydrogen storage](#) for use in fuel cells. No extra dams or reservoirs, as the opponents of hydroelectricity projects fear. And of course, it means more public transportation instead of private transportation.

All of these existing solutions mean making changes on a societal level that corporate interests oppose—after all, doing so would require public investments for social benefits and not for private profits. Capital privileges short-term private profits over long-term social benefits. Remember how oil companies had the earliest research to show the impact of global warming due to carbon dioxide emissions? They not only hid these results for decades but also launched a campaign denying that global warming is linked to greenhouse gases. And they funded climate change deniers.

The contradiction at the heart of global warming is private greed over social needs. And who funds such a transition, the poor or the rich? This is also what COP27 is all about, not simply about how to stop global warming.

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