## A Globe on Fire demands Immediate Action

By Don Sutherland

This summer, Texas, Europe, and central Asia have been suffering from unrelenting withering heat. Last summer, the Pacific Northwest was targeted by unprecedented heat. In 2020, it was the U.S. Southwest. The metaphor of a burning planet has become a fitting description.

Just last week, the most extreme heat ever to blaze across the United Kingdom (UK) demolished that country's national record of 38.7°C (101.7°F) that had been set just recently on July 25, 2019. Coningsby led the way with a 40.3°C (104.5°) temperature with London's Heathrow Airport and Saint James's Park coming in at 40.2°C (104.4°). All said, 34 sites surpassed the national record from 2019.

Hot extremes are increasing in frequency on account of anthropogenic climate change. In its Sixth Assessment Report, the Intergovernmental Panel on Climate Change explained that it is "unequivocal" that human activities have warmed the climate. An attribution report published after the July 2019 heatwave that produced the UK's prior national mark of 38.7°C found:

Such an event would have had return periods of from a few tens to a few hundreds of years without climate change... It is noteworthy that every heatwave analysed so far in Europe in recent years (2003, 2010, 2015, 2017, 2018, June 2019 and this study) was found to be made much more likely and more intense due to human-induced climate change. How much more depends very strongly on the event definition: location, season, intensity and durations. The July 2019 heatwave was so extreme over continental Western Europe that the observed magnitudes would have been extremely unlikely without climate change.

The attribution report that will be published following this year's historic heat event will almost certainly reach a similar conclusion. Moreover, the scientific literature has warned specifically about such events in a warming climate. A paper published by Nikolaos Christidis, Mark McCarthy and Peter A. Stott in *Nature Communications* on June 30, 2020 stated:

As European heatwaves become more severe, summers in the United Kingdom (UK) are also getting warmer. The UK record temperature of 38.7 °C set in Cambridge in July 2019 prompts the question of whether exceeding 40 °C is now within reach... We find that temperatures above 35 °C are becoming increasingly common in the southeast, while by 2100 many areas in the north are likely to exceed 30 °C at least once per decade. Summers which see days above 40 °C somewhere in the UK have a return time of 100-300 years at present, but, without mitigating greenhouse gas emissions, this can decrease to 3.5 years by 2100.

The evidence is overwhelming. The role of greenhouse gases in driving climate change is clear. There remains no scientific ambiguity as to whether climate change is underway and the cause of that climate change. Nevertheless, policymakers continue to treat the fossil fuels responsible for the greenhouse gases as sacrosanct.

Had a similar situation arisen with similar weight of evidence concerning the dumping of toxins in freshwater reservoirs, policymakers would have responded swiftly to curb the practice. No such practice would have been tolerated for years, much less decades.

Tragically, no such urgency is evident today in the world's capitals. Policy remains firmly stuck in an outdated fossil fuel-centered energy perspective. Policy continues to grant full license to the burning of fossil fuels, which currently pollutes the Earth's hydrosphere, biosphere, and atmosphere with approximately 40 gigatons of destructive greenhouse gases each year. Such licentious policy inertia is indefensible. That inaction is a willful investment in a much hotter and more dangerous future.

On July 18, 2022, UN Secretary-General António Guterres criticized this inaction before an audience at the Petersburg Summit in Berlin. He declared:

Greenhouse gas concentrations, sea level rise and ocean heat have broken new records. Half of humanity is in the danger zone from floods, droughts, extreme storms and wildfires... Yet we continue to feed our fossil fuel addiction.

The world should be doing far better. Russia's invasion of Ukraine created a rare opportunity for Europe to start to wind down its reliance on fossil fuels through an aggressive scaling up of clean energy infrastructure. That opportunity is being squandered. European leaders are frantically scrambling to replace Russian fossil fuels, not with clean energy, but with fossil fuels from alternative suppliers.

In the United States, things are no better. President Biden's latest pursuit of his "white whale"—a grand bargain with Senator Joe Mancin—proved futile with Mancin again dashing a legislative path that leads to clean energy. A crusading U.S. Supreme Court compounded the damage by stripping the Environmental Protection Agency (EPA) of the ability to regulate fossil fuels in the production of energy. And in an unforced blunder, the Biden Administration proposed to allow up to 11 oil and gas lease sales.

The true emergency at hand is not temporarily high oil and gas prices. That's an inconvenience. And in the context of global climate change, it is a minor inconvenience. The genuine emergency is the headline-making extreme heat, drought, and fires made possible by the continued burning of fossil fuels.

Now is the time to launch rapid and sustained decarbonization while there still is a theoretical possibility of holding global warming to 1.5°C above pre-industrial temperatures. With the unprecedented heatwaves and current dislocation in fossil fuel markets, there could not be a better time for breaking the shackles of fossil fuels that have imprisoned the world in damaging and deadly climate change. Policymakers should embark toward a new era of clean, reliable, and inexpensive energy accompanied by an orderly phase-out of fossil fuels with measurable and enforceable targets.

The laws of physics are not standing still for human policymakers. The world's thermometers bear witness to the consequences of doing nothing. The world is out of excuses for inaction.