

Energy – The Core of Humanity’s Poly-Crisis

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Access to available energy is the basis for the sustainability of all Life. After discovering the use of tools, humans have incorporated a progression of sources of energy beyond their own biology: fire, domesticated animals, water, wind, fossil fuels, geothermal, nuclear and solar. Virtually all energy on Earth is ultimately from the sun which continuously showers Earth with 173,000 terawatts [trillions of watts]. As humans have mastered the use of various external sources of energy, they have created the basis for an ever increasing population of larger and more complex societies. Today’s enormous complex societies of a total of 8.2 billion people covering the entire globe depend 80+% on fossil fuels and secondarily on a combination of nuclear, water, geothermal, wind, and solar sources for power. Without fossil fuels, modern complex societies would collapse, but the continued vast use of fossil fuels is generating global warming which can so impact the Earth’s overall ecology that required natural resources become insufficient to sustain mega humanity – leading to a massive global collapse and returning humanity to simpler societies, or worse.

Currently, modern complex societies have several major challenges, but none is more crucial to long term survival than replacing the use of fossil fuels with an alternative program of energy sources. Humanity is fully aware of the problem, but it is failing to address it with the required sense of urgency. Why? Three main reasons: 1) as humans, we are able to anticipate and plan ahead, but our default mode is presentistic, and the major negative consequences of global warming are assigned to the future, 2) as presentistic humans we are focused on the many immediate and dire challenges that require our attention NOW, and 3) the global capitalistic economy focuses on short term results [every hour, day, quarter, etc.] and supports continued fossil fuel use to sustain it. Moreover, global scale economic/financial interests are so powerful that they are able to “buy” a) sham science, b) denial/avoidance candidates and politics, and c) the distribution of false information through inadequately regulated media.

To avoid a worldwide, complex society disaster/collapse, it is critical for modern humanity to commit to a global scale “Manhattan Project” to develop a rapid, sufficient, implementable and worldwide alternative energy program to replace fossil fuels. Humanity as a whole has the scientific and technological capacity and resources to do this, but will it? Or will humans become just another species to cycle through expansion and collapse until it goes extinct on tiny planet Earth?