

The Efficiency Trap: Finding a Better Way to Achieve a Sustainable Energy Future

By Steve Hallett. 2013. Prometheus Books, 59 John Glenn Drive, Amherst, New York, NY, USA, 14228-2197. 337 pages, 19.00 USD, Paper.

“The world is teetering on the brink of disaster, the people with their grip on economic power are pushing us faster toward the edge of the cliff, and we are all being swept along,” is a quote from the middle pages of the book and sums up Hallett’s thesis. Like his first book (with John Wright), *Life Without Oil: Why We Must Shift to a New Energy Future* (2011), this book is a record of the research on global use of energy, a report of the diminishing supplies of oil, gas and coal and the evidence which we have for these conclusions. In addition Hallett examines the ideology of increasing production of all things as a way of measuring success. Increasing production in resources, food, gross domestic product and even population are measured to prove our society is doing well or not keeping up with its goals. It is true that we have gotten better at what we do in business, medicine, agriculture and high-tech manufacturing as time has passed. Engines have become more efficient using less fuel, houses use less energy to heat and cool, and appliances use less energy to accomplish their task faster. The increase in efficiency has regrettably been accompanied by millions of more cars on the road, each with better energy consumption, more and bigger houses using more heat and cool, and many more refrigerators, washing machines and dishwaters providing more convenience as we get busier with the same homes, travel and consumption. The bank of energy is steadily depleting as we plunge on with expectations of ever-increasing production.

Hallett tries to show how progress in human history has always had a growth imperative. Growth and in-

creased efficiency are never the means to use less of a resource, but instead increases the use of the same resource because it can be used more widely to do more things. A steam engine which was invented to pump water from coal mines became the steam-powered paradigm of industry, transportation and more efficient extraction of coal to fuel it all. The modest increase in coal production envisaged in a better pumping system gave rise to an exponential demand for coal as the engine became the source of power for so many functions. The conventional wisdom telling us fossil fuels can be saved if we consume them more efficiently is similarly ill-conceived as we increase production of more efficient vehicles with more transportation costs for assembly and distribution, and more people using them to drive further.

In a dooms-day prediction Hallett predicts that the economic collapse, the final drain of the oil fields and the after-peak time of natural gas will all come together in the 2030’s. As warning signs we should look at our personal debts, housing, employment, food, water, physical security, and transportation. Each of these has increased in its own way but the capacity of each to collapse in the current pattern of resource use has also grown. Most parts of nature exist in equilibrium but not in sustainability. Things grow and die, and continents and their ecosystems change but not with unaltered life to all of their members. Organisms which are best adapted to their environment are able to exist for the longest time in that same environment. Different sustainable agricultural practises like the Amish refusal

to use petroleum-powered equipment on their farms, or the efficiency of small acreage farms of some market gardeners as opposed to large acreages which can only be managed with large fuel-intense equipment are given as modern North American examples of counter-cultural change. Each of these is achieved only with strong community support, family identity and common work ethic to sustain the land production. Increasing food production by growing vegetables in areas like downtown Detroit which was abandoned by homeowners or the change of agricultural production of Cuba

after the collapse of the Soviet Union are both examples of how scarcity has given rise to a different kind of less efficient, non-growth potential. When a community tries to change, the change is slow in human terms. When we are caught in a changing world the change will come upon us whether or not we will it. Hallett's book is a reminder that the change is upon us and our only response can be to change with it. He encourages us to change sooner than later.

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