



Hot, Flat, and Crowded: Why We Need a Green Revolution--and How It Can Renew America

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In his 2005 book *The World is Flat*, Friedman wrote that he feared Americans would respond to September 11th by walling ourselves in. Eleven years later, the presumptive nominee of one of America's two major political parties proposes to end the North American Free Trade Agreement, to break the Trans-Pacific Partnership, and to place a 45-percent tariff on Chinese goods. He also proposes to build a

wall paid for by Mexico along our southern border, and he proposes to suspend immigration from areas of the world with a proven history of terrorism. In these same eleven years, five grave problems that America shares with the Rest of the World have become worse. The World's demand for energy supplies and natural resources has grown; the World continues to transfer massive amounts of wealth to oil-rich countries; the threat of climate change persists unmitigated; millions of people live in energy poverty; and, biodiversity loss has accelerated.

Friedman wrote his 2006 book *Hot, Flat, and Crowded*, to explain why America must overcome its emergent protectionist tendency and lead the World in solving these five problems. His concern is that too many Americans perceive solving these problems as too costly with benefits too far in the future. Friedman argues against this perception by explaining how these problems arose and proposing how American leadership could resolve these problems.

How did we get so hot, flat, and crowded? First, America, China, and other developed countries consume enormous quantities of fossil fuels. So much so that the International Panel on Climate Change likely underestimates future global temperatures because they use outdated data on China's economic activities. Second, many countries now participate in a global economy thanks to technological and geopolitical developments at the end of the twentieth century. Although this flattening has enabled millions to lift themselves out of poverty, the higher standards of living imply greater demands on energy and natural resources. These demands spur deforestation, leading to greater carbon dioxide emissions, which make the world hotter. (Friedman cautions, "We are the asteroid." Or, as the great comedian George Carlin said, "We're going away.") Third, we are crowded because population levels have risen and populations have become more urbanized. Friedman argues that our hot, flat, and crowded world is, in part, the result of a Dirty Fuel System based on the wasteful use of dirty, cheap, abundant fossil fuels at the expense of other natural resources, like air and water.

How should America lead? Friedman argues that a key step is for America to appropriately shape the market. America should increase tariffs on crude oil and remove subsidies for corn ethanol, which affect global food prices. America should require its companies to meet higher energy efficiency standards. America should provide incentives for electric utilities to join with their customers to invest in energy efficiency. Readers of *Defense AT&L Magazine* will be familiar with the emergence of "green hawks" in 2006 after Major General Richard Zilmer called attention to the dangers of transporting diesel fuel in Anbar Province. Green hawks also pushed for foam insulation in tents, which has saved millions of dollars. As Friedman notes, the military will want renewables when and where they enable greater tactical flexibility.

This book, especially the chapter on "outgreening Al Qaeda", is a must read for the defense operational energy community. To outgreen our enemies and to Win the Future, we must not underestimate the benefits of innovation and overestimate its costs. This will require leadership—leadership that builds bridges, not walls—focused, forward-looking leadership that Friedman seeks to inspire with his book *Hot, Flat, and Crowded*.