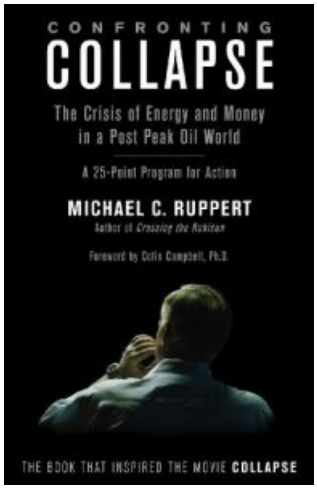

Book Confronting Collapse

The Crisis of Energy and Money in a Post Peak Oil World

Michael C. Ruppert
Chelsea Green Publishing, 2009

Recommendation

Energy crisis expert Michael C. Ruppert says the sky is falling and makes a strong argument as to why you should heed his warnings. Ruppert marshals compelling facts about the imminent collapse of the oil fields, whose cheap energy has fueled developed society's way of life for more than a century. He shows how the global financial system's continual growth drove overconsumption destined to ruin any rational response to the energy crisis. He offers solutions using equal parts "relocalization," population reduction, resource management and an overhaul of the American governmental system. Noting that the author's political opinions are controversial, *BooksInShort* recommends this book's energy crisis information to local and federal government planners, finance professionals, anyone in the energy industry and policy makers looking to construct a societal paradigm for a new, frightening age.

Take-Aways

- World oil production has peaked.
- Fossil fuels built modern civilization, and alternative energy sources cannot replace them.
- The "corrupt" American and world economic system cannot deal with the crisis.
- US foreign policy is based on energy control; the Iraq War was about oil.
- "Big Agriculture's" reliance on fossil fuels created the Green Revolution but ruined the soil.
- Ethanol subsidies are a boondoggle that will consume grain the world needs to feed itself.
- The root cause of this economic catastrophe is society's dependence on oil.
- Policy makers must fashion a no-growth economy and raise sensitive issues such as unfettered childbearing.
- Alternative energy businesses must fall under government oversight and be made to produce workable amounts of power quickly.
- Local self-sufficiency is critical, beginning with growing food locally.

Summary

The Scope of the Problem

Contemporary civilization is a creation of cheap oil and hydrocarbon fuels. The planet has reached the peak of easily obtainable oil, and the coming shortages will be catastrophic. The globe's current economic woes arise from a nexus of energy and money – a relationship that must be overhauled. Experts such as geologist M. King Hubbert have warned over the years about the looming apex of cheap oil production; still no viable alternatives exist to replace society's fossil-fuel architecture. Oil insiders such as Dick Cheney (former CEO of oil-services giant Halliburton) crafted secret plans to manage the crisis, including the invasion of Iraq. Debates in Congress and during the presidential campaign showed that Americans remain tragically ignorant of oil depletion and its implications.

> "The utmost priority for all nations is to know how much oil is left, where it is and what kind it is."

The current system encourages people to consume energy to feed an unsustainable economic model that requires endless growth. A global emergency looms as the era of cheap oil ends, an emergency born of resource shortages. This crisis is the product of a global population that continues to surge even as inexpensive energy sources dwindle. The US, which uses a quarter of the world's energy supply, gets more than 70% of its oil from other nations. That oil is starting to disappear. Very little

remains; by 2030, the world may be "using 10 barrels for every new barrel discovered."

> "The American grid has been in trouble for a long time as a result of two problems: lack of infrastructure maintenance and repair, and shortages of natural gas to power generating stations which are still being built to meet new demand."

As of 2008, oil fields were in decline in 42 of the 50 biggest oil-producing nations. Kuwait and Mexico have seen major fields collapse, and Mexico's drop in oil revenue destabilized its economy. Production has declined in Great Britain, Norway, Russia, Iran, Nigeria and Venezuela – one of the US's top suppliers. New oil – to say nothing of the development infrastructure – simply doesn't exist. Information about the oil situation has been misleading. Tales of miraculous finds off Brazil and in the Caspian Basin are unverifiable or exaggerated. Drilling in the Arctic isn't workable because its oil is underwater. The Alaska National Wildlife Refuge contains only about 5% of the amount of oil in Saudi Arabia's biggest field. Natural gas now provides some 40% of the US's electricity, but shipping natural gas requires converting it to compressed liquefied natural gas (LNG), an expensive, potentially explosive process. Turkmenistan and Russia hold the largest reserves. Russia has already used its gas as a weapon, twice shutting off access in disputes with Ukraine.

> "A collapse in Saudi production would send the global and US economies reeling (further) in an instant."

Statistics concerning the size of the world's oil supply are unreliable. Different categories of reserves – such as "estimated" and "probable" reserves – denote accounting sleight-of-hand designed to lower tax burdens or boost investment value. They don't reflect actual amounts.

The global energy system and the US's public works infrastructure need repair. The world must spend $22 trillion by 2030 to upgrade its energy architecture, including maintaining equipment – rigs, pipelines and refineries. Expensive deepwater rigs require cash, particularly in the Gulf of Mexico (where Saudi Arabia has leased 120 such rigs). American society demands abundant electricity, but natural gas shortages and a lack of maintenance compromise the national grid. President George W. Bush's 2005 repeal of the New Deal-era Public Utility Holding Companies Act (PUHCA) complicated this problem. The law made power companies maintain extra generating capacity in case of emergencies. Deregulation let utilities focus on profit over service, choose who gets power when and sell fuel out of state.

> "To deal with Peak Oil and energy shortages...the people of the United States need to rethink our government again, and in a way that has never been asked of us."

Before the deals began to dry up in late 2009, governmental entities across the US were trying to sell or lease parts of their infrastructure – such as the Pennsylvania Turnpike or Chicago's Midway Airport – to raise cash for operations or repairs. But other projects continue apace. A massive national road-building campaign is under way even though traffic nationwide peaked in 2005, and costly gasoline curtails it further. Airports expand even as airlines reduce flights. The US must prop up this faltering system because alternative energy solutions (wind, solar and hydrogen power) cannot meet its demand.

Iraq and Saudi Arabia

The US will have a large military presence in Iraq for decades. Iraq probably has 90 billion barrels of easy-to-recover oil – the planet's second-largest known reserves – in two areas not controlled by the Sunni faction. The US constructed four substantial airfield bases and an enormous fortified embassy in the Iraqi capital. Americans can expect at least 50,000 soldiers and military workers to remain in-country. The Bush-Cheney administration focused on Iraq's oil and achieved a three-part mission with the 2002 invasion: to take over Iraq and keep it out of the hands of competing domestic and foreign powers; to divide it into three parts – Kurd, Shiite and Sunni – so the US could control the oil area; and to ensure US access to Iraqi oil. That oil gives America a club to assault its enemies and glue to bind its friends, like China and Japan, leading buyers of the Treasury Bills that finance the US economy.

> "The worst thing an American energy policy could do would be to take the position that the oil in Iraq belongs to the United States at bargain-basement prices."

Saudi Arabia is the second-biggest supplier of oil to the US and – says the BBC – has invested some $750 billion in the American economy. Prominent Saudi billionaires such as Adnan Khashoggi and Prince Alwaleed Bin Talal hold substantial pieces of US firms. Alwaleed owns investments in Citigroup, News Corp., Apple, Saks Fifth Avenue and other major firms. But Saudi Arabia remains volatile, run by a royal family hard-pressed to keep its unhappy population in line, a situation worsened by oil price collapses.

> "We must learn to work with our neighbors in developing sustainable lifestyles based upon reduced consumption and sharing of resources."

Saudi Arabia, which has 25% of the world's oil, contends it has nearly as much in reserve as when it started pumping 60 years ago. Oil expert Matthew Simmons argues that a number of the country's fields are approaching collapse. The world must learn the actual status of Saudi Arabia's oil fields and reserves, because a decline would have drastic consequences. Since the Carter Administration, the US has made it clear that it would defend with force its oil interests in the Persian Gulf. Saudi Arabia relies on US military protection. The Iraq War saw a massive reinforcement of US bases in Saudi Arabia.

Food, Ethanol and Alternative Energy

Since the 1950s, "Big Agriculture" has turned food into a product made with oil and natural gas, and fertilizers added repeatedly to the soil have long since depleted it of its organic nutrients. Such intensive agriculture, abetted by oil-powered heavy machinery, made the Green Revolution possible and substantially increased the world population. But the Green Revolution fostered an unfortunate agricultural addiction to petrochemicals. Ethanol, a US congressional giveaway to Big Agriculture, now threatens the food supply. Farmers receive government subsidies to grow corn for car-fuel ethanol, thus committing the global corn supply to gas tanks and leading to worldwide food panic. That spurs runaway price hikes in grains and processed staples such as bread and tortillas. One day, rising fuel costs will force the world to return to local rather than global food supplies.

> "A manmade requirement for infinite growth collides with a man-sustaining and unyielding finite planet and the physical laws that govern our universe."

Modern alternative energies cannot replace the fossil-fuel system. Key questions about alternative sources include: What is the amount of "energy returned on energy

invested"; is the energy available around the clock; does it harm the environment; and what kind of infrastructure does it need? Governmental leaders must confront the brutal realities of these alternative energy options. American leaders must choose something that will let the US function until the nation can devise a new plan. Everywhere, solar and wind power have cost and implementation limitations. "Clean coal" won't work because the industry has neither clean-coal plants nor cost-effective carbon-capture protocols. From its toxic waste byproducts to mountain-destroying mining to its enormous consumption of water, coal is dirty. Tar sands are even worse: Making one barrel of synthetic oil from bitumen takes two tons of tar sand. Even reaching the bitumen requires a process that destroys the environment, squanders natural gas and poisons the water. Shale oil is unproven but would be hugely wasteful of rock and water. Hydrogen power is not a viable option and won't be for years. And nuclear energy is problematic for numerous reasons: uranium scarcity, possible malfunctions, high costs, toxic debris, and long construction and permitting times.

> "American culture and consumption has become Public Enemy Number One in the global growth paradigm."

North Korea and Cuba lost their oil lifelines with the collapse of the USSR. Pyongyang's top-down solution failed, leading to starvation and infrastructure collapse. Havana turned the problem over to its people; they rebounded with a local nonfossil-fuel food system that's produced better, wider food choices and a healthier diet. In the US, "relocalization" is beginning; Americans need to adapt and to abandon their past overconsumption. Local self-sufficiency is critical, beginning with growing food locally.

Money and the New Economic Paradigm

The global economy is the root of the fossil-fuel problem because it demands ceaseless growth. Countries print money in a pyramid setup that includes fractional reserve banking and compound interest, and props up the world's monetary house of cards. Add the huge upsurge in cars in developing nations, and you have a world that wants the universal American Dream, once fueled by cheap energy and easy money.

> "What is happening is not just an American crisis. It is a global crisis. It is an emergency for every human being alive today and especially those yet unborn."

Without new energy sources and fresh money, civilization faces collapse, or "the Die Off." To avoid this, policy makers must fashion a no-growth economy – an idea that raises sensitive issues such as unfettered childbearing. Alternative energy businesses, which also operate in the risky constant-growth paradigm, must fall under government oversight and be made to produce workable amounts of power quickly. Unfortunately, economies routinely swing between peaks and valleys, booms and busts. These cycles disrupt the long-term planning needed for alternative energy to work properly. The Feed-in Tariff (FiT) might help; it allows renewable-energy suppliers to sell power back to a national grid at higher-than-market prices. This system, pioneered in Germany, requires regional utilities to buy surplus power, which gives every ratepayer a hand in subsidizing it. Germany's solar industry has grown significantly under the FiT. California already has instituted a FiT law.

> "We are faced with a choice that can no longer be postponed or evaded. Evolve or perish. Adapt or die."

Peak Oil expert Dr. Colin Campbell – a well-regarded British geologist who predicted that oil production would peak in 2007 – proposed the Oil Depletion Protocol, which calls for international limits on oil consumption. The Protocol would help defuse world tensions and institute sensible resource management. The implementation of reasonable US governmental policies on oil shortages will require a new state-federal relationship wherein local entities, the key service providers, make the decisions about what gets cut and what stays. A repurposed Strategic Petroleum Reserve (SPR) could help. The current reserve holds crude oil on the climate-threatened Gulf Coast. The US could establish a second SPR to hold the refined oil products needed for essential local government services.

"An Emergency 25-Point Plan for Action"

To respond to this crisis, policy makers should implement an action plan based on 25 points:

1. Establish a second SPR for local governments.
2. Institute a new tracking system for crude oil.
3. Put the Oil Depletion Protocol into place.
4. Release the records of Cheney's National Energy Policy Development Group.
5. Halt highway and airport expansions.
6. Rebuild the US railroad system.
7. Implement the Feed-in Tariff.
8. Forbid speculation in nonrenewable energy sources.
9. Impose a national 55-mph speed limit.
10. End federal subsidies for ethanol and biofuels.
11. Enact FiTs for local food suppliers.
12. Provide incentives for local food production and open empty urban spaces to agriculture.
13. Assess the nation's soil and end monocropping.
14. Institute a federal effort to assess energy vulnerabilities and relocalization successes.
15. Reimplement PUHCA.
16. Rebuild the national electrical grid.
17. Establish federal policing of misleading advertising about energy technology.
18. Overhaul the federal tax code.
19. Use uranium from decommissioned weapons for nuclear power.
20. Create new energy-efficient building codes.
21. Provide to produce capable energy-infrastructure workers.
22. Cut federal government energy use by 15%.
23. Sharply trim deployment of American forces overseas.

24. Make hemp legal and encourage its production.
25. Start a worldwide discussion about reducing the human population.

The Way Ahead

Any forthcoming economic recovery will die because there isn't enough oil to fuel it. By refusing to alter its appetites for consumption, civilization has diminished its ability to change. Society needs to understand what's at stake and to take action now.

About the Author

Michael C. Ruppert, an investigative journalist, also wrote *Crossing the Rubicon*.
