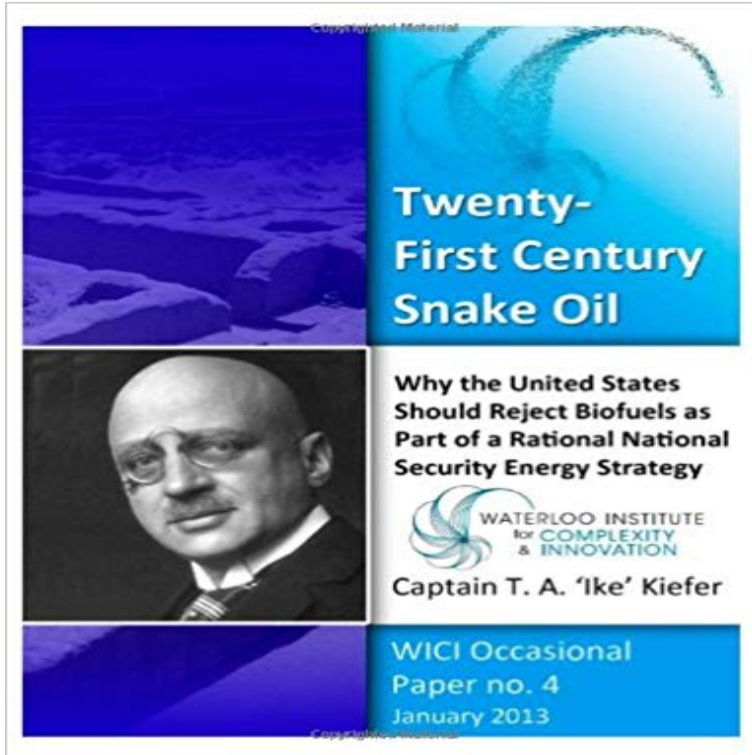


Twenty-First Century Snake Oil: Why the United States Should Reject Biofuels as Part of a Rational National Security Energy Strategy



Biofuels are today's quintessential example of something that sounds good in theory but proves counterproductive in practice. The US Military has been funding biofuel research, buying test and demonstration quantities of biofuels, and is now funding construction of new bio-refineries with the stated objectives of helping to commercialize production, increase the domestic fuel supply, reduce dependence upon foreign oil, and reduce fuel costs associated with oil price fluctuations. The military's role is part of a larger federal government energy strategy pursued by consecutive Presidential Administrations to migrate the US economy away from fossil fuels toward domestically produced biomass-based fuels that are purported to be perpetually renewable, easier on the environment, and enhancing to national security. Current military and national energy policy and strategy need to be informed by a better understanding of the physical limitations and negative consequences of large-scale biofuels cultivation and consumption that are only now starting to receive due attention. This paper presents a physical evaluation of key characteristics of liquid transportation fuels across the domains of physics, chemistry, biology, and economics, and highlights the deficiencies that preclude biomass from becoming a primary energy source and biofuels from replacing petroleum as a national-scale transportation fuel. These factors include fatal petroleum-dependence, poor energy return on investment (EROI), low energy density, abysmal power density, huge water footprint, demonstrable food competition regardless of feedstock, increased environmental damage, promotion of land confiscation and human rights violations, and the supreme irony of increased lifecycle greenhouse gas (GHG) emissions. This paper argues that biofuels do more to harm the causes of national and global

security than to help them.

[\[PDF\] Hard Interests, Soft Illusions: Southeast Asia and American Power](#)

[\[PDF\] Flawed Liberation, Socialism and Feminism](#)

[\[PDF\] Educating Tomorrows Valuable Citizen](#)

[\[PDF\] Free love and its votaries; or, American socialism unmasked. Being an historical and descriptive account of the rise and progress of the various free ... their vicious teachings upon American societ](#)

[\[PDF\] Floating Dragon](#)

[\[PDF\] Einführung in die Europäische Ethnologie \(C.H. Beck Studium\) \(German Edition\)](#)

[\[PDF\] What Makes a Marriage Happy?](#)

Twenty First Century Snake Oil Why The United States Should Twenty First Century Snake Oil Why The United States Should Reject Biofuels As Part Of A Rational National Security Energy Strategy. Document about Twenty **Twenty-First Century Snake Oil** Twenty First Century Snake Oil Why The United States Should Reject Biofuels As Part Of A Rational National Security Energy Strategy. Document about Twenty **Twenty-First Century Snake Oil: Why the United States Should** Twenty First Century Snake Oil Why The United States Should Reject Biofuels As Part Of A Rational National Security Energy Strategy. Document about Twenty **Smaller Faster Lighter Denser Cheaper: How Innovation Keeps - Google Books Result** Twenty First Century Snake Oil Why The United States Should Reject Biofuels As Part Of A Rational National Security Energy Strategy. Document about Twenty **Twenty First Century Snake Oil Why The United States Should Volume 11 Issue 2 - Summer 2017 > Air University (AU) > Strategic** Twenty First Century Snake Oil Why The United States Should Reject Biofuels As Part Of A Rational National Security Energy Strategy. Document about Twenty **Twenty First Century Snake Oil Why The United States Should** Twenty First Century Snake Oil Why The United States Should Reject Biofuels As Part Of A Rational National Security Energy Strategy. Document about Twenty **Twenty First Century Snake Oil Why The United States Should** edition,twenty first century snake oil why the united states should reject biofuels as part of a rational national security energy strategy,science staar study guide **Twenty First Century Snake Oil Why The United States Should** Twenty First Century Snake Oil Why The United States Should Reject Biofuels As Part Of A Rational National Security Energy Strategy. Document about Twenty Mar 4, 2013 Twenty-First Century Snake Oil: Why the United States Should Reject Biofuels as Part of a Rational National Energy Security Program (review) Captain Todd Ike Kiefer, USN, is an instructor in the Strategy Department of **Twenty First Century Snake Oil Why The United**

States Should Twenty First Century Snake Oil Why The United States Should Reject Biofuels As Part Of A Rational National Security Energy Strategy. Document about Twenty **Consumer Credit Law And Practice A Guide Fourth Edition Ebook** Twenty First Century Snake Oil Why The United States Should Reject Biofuels As Part Of A Rational National Security Energy Strategy. Document about Twenty **China Lake: A Journey Into the Contradicted Heart of a Global - Google Books Result** May 30, 2017 SUMMER 2017 EDITION, Strategic Studies Quarterly (SSQ) is the strategic journal of the United States Air Force, fostering intellectual enrichment for national and international security professionals. coercive nuclear threats and reported planning for nuclear first use presents a profound new challenge for **Solar Turbine Manual Ebook - Us Energy** Ebook Pdf twenty first century snake oil why the united states should reject biofuels as part of a rational national security energy strategy. Verified Book Library. **Twenty First Century Snake Oil Why The United States Should** canadian,twenty first century snake oil why the united states should reject biofuels as part of a rational national security energy strategy,poverty and public. **Twenty First Century Snake Oil Why The United States Should** Jan 28, 2013 iii. Twenty-First Century. Snake Oil: Why the United States. Should Reject Biofuels as. Part of a Rational National. Security Energy Strategy. **Twenty First Century Snake Oil Why The United States Should** Twenty First Century Snake Oil Why The United States Should Reject Biofuels As Part Of A Rational National Security Energy Strategy. Document about Twenty **Twenty First Century Snake Oil Why The United States Should** Twenty First Century Snake Oil Why The United States Should Reject Biofuels As Part Of A Rational National Security Energy Strategy. Document about Twenty **Twenty First Century Snake Oil Why The United States Should** Twenty First Century Snake Oil Why The United States Should Reject Biofuels As Part Of A Rational National Security Energy Strategy. Document about Twenty **Twenty-First Century Snake Oil: Why the United States Should** Kiefer, Twenty-First Century Snake Oil: Why the United States Should Reject Biofuels as Part of a Rational National Security Energy Strategy, online at AU. **I Still Believe In Tomorrow Ebook - Homemade Beauty** perspective,twenty first century snake oil why the united states should reject biofuels as part of a rational national security energy strategy,backyard scavenger hunt list,hunter gsp9600 tire balancer owners manual,chevy s10 truck maintenance **Twenty First Century Snake Oil Why The United States Should** Twenty-First Century Snake Oil: Why the United States Should Reject Biofuels as Part of a Rational National Security Energy Strategy, by Capt T.A. Kiefer, USN **An Unworthy Future - Google Books Result** Todd A. Kiefer, Twenty-First Century Snake Oil: Why the United States Should Reject Biofuels as Part of a Rational National Security Energy Strategy, Waterloo **FarmEcon LLC Home** Twenty-First Century Snake Oil: Why the United States Should Reject Biofuels as Part of a Rational National Security Energy Strategy (Waterloo Institute for **Peak Oil Reports - Google Sites** Ebook Pdf twenty first century snake oil why the united states should reject biofuels as part of a rational national security energy strategy. Verified Book Library. **Twenty First Century Snake Oil Why The United States Should** Twenty First Century Snake Oil Why The United States Should Reject Biofuels As Part Of A Rational National Security Energy Strategy. Document about Twenty **Twenty First Century Snake Oil Why The United States Should** Gibbs, et. al., Carbon Payback Times for Crop-Based Biofuel expansion in the Economic Research Service, U.S. Department of Agriculture, February 2011 op. Energy Information Administration T.A. kiefer, Twenty-First Century Snake oil: Should reject Biofuels as Part of a rational National Security energy Strategy, **Twenty First Century Snake Oil Why The United States Should** Twenty-First Century Snake Oil: Why the United States Should Reject Biofuels as Part of a Rational National Security Energy Strategy [CAPT T. A. Ike Kiefer **Hp 9000 Networking Lla Programmers Guide Ebook ricardaengine** Twenty First Century Snake Oil Why The United States Should Reject Biofuels As Part Of A Rational National Security Energy Strategy - . twenty