### Pyrococcus furiosus Counterplan

#### Text: The United States federal government should develop electrofuels from extremophiles that are genetically engineered to use hydrogen to turn carbon dioxide directly into alcohol-based fuels (3-hydroxypropionic acid or butanol).

#### Reduces CO2 emissions and CO2 currently in the atmosphere

**The Energy Collective 4/16**/13 (“Carbon Neutral Energy: Taking Biofuels to the Next Level,” The Energy Collective, 4/16/13, http://theenergycollective.com/ecskris/204621/carbon-neutral-energy-taking-biofuels-next-level)

That’s the claim being presented by researchers at the University of Georgia (UGA) in an article posted by Bio Fuel Daily… This carbon neutrality is far more efficient and healthier for the environment in comparison to burning fossil fuels the way we do today.

### Environmental Dualism Kritik

#### The affirmative’s attempt to increase economic engagement perpetuates the ideology of humans and nature as different entities

**Harper 12** (Charles L. Harper, Doctor of Philosophy: Sociology, works in the Department of Sociology, Anthropology & Social Work at Creighton University, Environment and Society: Human Perspectives on Environmental Issues, 2012, <http://environmentalsoc.edublogs.org/files/2013/02/Harper-Ch.1-2-rxy2fb.pdf>)

More than the classic thinkers, contemporary economists emphasize the second part of the human-environmental dualism previously described… This model is abstracted from the environment: within which the money economy is actually embedded, and there are no connections between money flows and biophysical reality (Rees, 2002:254).

#### This results in the destruction of nature and extinction

**The Dark Mountain 09** (Uncivilization, network of writers, artists, and thinkers, The Dark Mountain Manifesto, http://dark-mountain.net/about/manifesto/, 2009)

The myth of progress is founded on the myth of nature… Finally, on top of all these unseen layers, you reach the well-tended surface where you and I stand: unaware, or uninterested, in what goes on beneath us; demanding that the authorities keep us in the manner to which we have been accustomed; occasion- ally feeling twinges of guilt that lead us to buy organic chickens or locally-produced lettuces; yet for the most part glutted, but not sated, on the fruits of the horrors on which our lifestyles depend.

#### The alternative is to reject the 1AC’s environmental dualisms – this eliminates the concept of an “environment” and solves destruction of the planet

**Rowe 96** — Stan Rowe, Professor Emeritus at the University of Saskatchewan, 1996 (“From Shallow To Deep Ecological Philosophy,” Trumpeter, Volume 13, Number 1, Available Online at http://trumpeter.athabascau.ca/index.php/trumpet/article/view/278/413)

Implicit here is a devastating criticism of sociology and communitarian politics that will “improve” the human condition by sole attention to populations, societies and social ills… We should feel more pain at the destruction of wild ecosystems, such as the temperate rain forest of the West Coast, than at the demise of any organism, no matter how sad the latter occasion, because the destruction of ecosystems severs the very roots of evolutionary creativity.

### Renewables Bad

#### Biofuels deplete food production capacity

**Hurn 7/30**/13 (Lucy, Biofuels Campaign Manager at ActionAid, “Biofuels threaten food production,” The Guardian, http://www.theguardian.com/environment/2013/jul/30/biofuels-threaten-food-production-kendall)

Your interview with Peter Kendall, president of the National Farmers' Union (Report, 29 July), raised interesting points on the challenge of feeding a growing population, especially given the threat of climate change… Considering one in eight people around the world go hungry every day, we urge MEPs to end targets that incentivise turning farmland into land to feed cars rather than people, and vote to stop biofuels creating further hunger by capping the proportion of biofuels made from food.

#### Geothermal energy hurts environment

**Stewart 12** Carol Stewart, “Geothermal energy- Effects on the environment”, TEARA July 13, 2012, <http://www.teara.govt.nz/en/geothermal-energy/page-5>

Depletion of resources¶ The process of extracting geothermal fluids (which include gases, steam and water) for power generation typically removes heat from natural reservoirs at over 10 times their rate of replenishment… However, geothermal extraction releases far fewer greenhouse gases per unit of electricity generated than burning fossil fuels such as coal or gas to produce electricity.

#### Hydroelectricity emits CO2 during installation and operation

**Union of Concerned Scientists 3/5**/13 (“Environmental Impacts of Hydroelectric Power,” Union of Concerned Sciences, 3/5/13, http://www.ucsusa.org/clean\_energy/our-energy-choices/renewable-energy/environmental-impacts-hydroelectric-power.html)

Global warming emissions are produced during the installation and dismantling of hydroelectric power plants, but recent research suggests that emissions during a facility’s operation can also be significant… To put this into context, estimates of life-cycle global warming emissions for natural gas generated electricity are between 0.6 and 2 pounds of carbon dioxide equivalent per kilowatt-hour and estimates for coal-generated electricity are 1.4 and 3.6 pounds of carbon dioxide equivalent per kilowatt-hour [7].

#### Natural gas bad-

#### 1. Methane

**Lohan 1/11**/13 (Tara, senior editor at AlterNet and heads up the Environment, Water, and Food coverage, “5 reasons natural gas won’t save us,” Salon, 1/11/13,http://www.salon.com/2013/01/11/5\_reasons\_natural\_gas\_wont\_save\_us/)

Natural gas may release less pollution when burned, but it still may be a significant contributor to global warming pollution after all because we must take into account what happens during extraction, too… The EPA reports, “Pound for pound, the comparative impact of CH4 [methane] on climate change is over 20 times greater than CO2 over a 100-year period.

#### 2. Water pollution

**Lohan 1/11**/13 (Tara, senior editor at AlterNet and heads up the Environment, Water, and Food coverage, “5 reasons natural gas won’t save us,” Salon, 1/11/13, http://www.salon.com/2013/01/11/5\_reasons\_natural\_gas\_wont\_save\_us/)

Methane released during fracking doesn’t just end up in the air, but also in the water… Oh yeah, and fracking is exempt from the Safe Drinking Water Act — thanks Dick Cheney!

#### Solar panels worse than CO2

**Digital Journal 12** (“Solar Cells Linked to Greenhouse Gases Over 23,000 Times Worse than Carbon Dioxide According to New Book, Green Illusions,” Digital Journal, 6/4/12, http://www.digitaljournal.com/pr/738098)

Green Illusions explains how the solar industry has grown to become one of the leading emitters of hexafluoroethane (C2F6), nitrogen trifluoride (NF3), and sulfur hexafluoride (SF6)… "It is hard to conceive of a justification for extracting taxes from the working class to fund installations of Stone Age photovoltaic technologies high in the gold-rimmed suburbs of Arizona and California."