# 1NR

## CP

### Condo

#### RPS solves the Greenhouse effect – it promotes renewables which reduce the primary cause of CO2

Sovacool & Cooper 2008

(Benjamin, Senior Research Fellow at the Network for New Energy Choices & Christopher, the Executive Director of the Network for New Energy Choices Environment and Energy Law and Policy Journal “Congress Got it Wrong: The Case for a National Renewable Portfolio Standard and Implications for Policy”)

In addition to avoiding free riders, minimizing gaming between states, and mitigating the risk of litigation, a national RPS would diversify the country’s electricity portfolio with cleaner, less polluting technologies. Indeed, examinations of fuel generation in several states confirm that RPS policies displace more polluting generators, such as those powered by oil, natural gas, coal, and uranium. The New York State Energy and Research Development Authority (“NYSERDA”) looked at load profiles for 2001 and concluded that 65% of the energy displaced by wind turbines in New York would have otherwise come from natural gas facilities; 15% from coal-fired plants; 10% from oil-based generation; and 10% from out of state imports of electricity.209 A more recent study conducted in Virginia found that the electricity mandated by a state RPS would otherwise be generated with a mix of 87% coal; 9% natural gas; and 4% oil.210 A 20% RPS by 2020 in Michigan would displace the need for more than 640 MW of power that would have otherwise come from both nuclear and coal facilities.211 Utilities in Ontario, Canada are deploying renewable energy systems in an attempt to entirely displace coalfired electricity generation in the region.212 By offsetting the generation of conventional and nuclear power plants, a national RPS avoids many of the environmental and social costs associated with the mining, processing, transportation, combustion and clean-up of fossil and nuclear fuels. Perhaps the most important and least discussed advantage to a federal RPS is its ability to displace water-intensive electricity generation. The nation’s oil, coal, natural gas, and nuclear facilities consume about 3.3 billion gallons of water each day213 and accounted for almost 40% of all freshwater withdrawals.214 With electricity demand expected to grow by approximately 50% in the next 25 years, continued reliance upon fossil fuel-fired and nuclear generators could spark a water scarcity crisis.215 In 2006, the Department of Energy warned that if new power plants continue to be built with evaporative cooling systems, consumption of water for electricity production could more than double by 2030 to 7.3 billion gallons per day.216 This staggering amount is equal to the entire country’s water consumption in 1995.217 By promoting wind, solar, and other renewable resources that do not consume or withdraw water, a national RPS can help conserve this essential yet dwindling resource. In one of the most comprehensive assessments of renewable energy and water consumption, the American Wind Energy Association estimated that wind power uses less than 1/600 as much water per unit of electricity produced as does nuclear; 1/500 as much as coal; and 1/250 as much as natural gas.218 Conventional electricity generation is by far the largest source of air pollutants that harm human health and contribute to global warming. In 2003, for example, fossil fuel use—for all energy sectors, not just electricity—was responsible for 99% of the country’s carbon dioxide (“CO2”) emissions, 93% of its SOx emissions, and 96% of its NOx emissions.219 Researchers at the Harvard School of Public Health estimated that the air pollution from conventional energy sources kills between 50,000 and 70,000 Americans every year.220 These researchers found that the emissions from just nine power plants in Illinois directly contributed to an annual risk of 300 premature deaths, 14,000 asthma attacks, and more than 400,000 daily incidents of upper respiratory symptoms among the 33 million people living within 250 miles of the plants.221 The International Atomic Energy Agency estimates that when direct and indirect carbon emissions are included, coal plants are about five times more carbon intensive than solar and more than 140 times more carbon intensive than wind technologies.223 Natural gas fares little better, at three times as carbon intensive as solar and twenty times as carbon intensive as wind.224 The Common Purpose Institute estimates that renewable energy technologies could offset as much as 0.49 tons of CO2 emissions per every MWh of generation.225 According to data compiled by the Union of Concerned Scientists, a 20% RPS would reduce CO2 emissions by 434 million metric tons by 2020— a reduction of 15% below “business as usual” levels, or the equivalent to taking nearly 71 million automobiles off the road.226 In addition to the environmental damage caused by fossil fuel combustion, the production of fossil fuels and uranium— including drilling, mining, processing and transportation— produce a substantial amount of pollution and toxic waste.227 In the United States, there are more than 150 refineries; 4,000 offshore platforms; 410 underground gas storage fields; 160,000 miles of oil pipelines; and 1.4 million miles of natural gas pipelines.228 Additionally, nuclear waste is spread across 121 storage facilities in 39 states.229 Each can degrade their surrounding environment and negatively affect the health and safety of Americans.

#### Strategic thinking – condo forces 2AC time and strategy pressure – makes them consider argument interaction and make smart choices– only long-term skill we learn in debate.

#### ...

#### Neg flex – key to test the aff from multiple angles and give us strategic options – aff gets to speak first and last, no one advocates the squo on this topic

#### ...

#### Logical decisionmaking – no one would vote for something worse than the squo – makes their model terminally useless

#### ...

#### Skews inevitable – we could read more T or case arguments to waste time

#### ...

#### 2NR checks – narrows the debate to one world for in-depth discussion.

#### ...

#### CI -\_\_\_\_\_\_\_\_ advocacies – checks regression.

#### ...

#### Dispo doesn’t solve – aff will always perm

#### ...

#### Reasonability – no neg resolution means all theory interpretations are arbitrary. They have to win we destroy debate in this instance to win.

## DA

#### SMRs have the same issues with meltdowns as normal reactors

Singer 2012 (writer for the St. Louis Beacon, “Big or small, questions about nuclear reactors remain” <https://www.stlbeacon.org/#!/content/24610/pros_cons_of_small_modular_reactors> ) JA

But Ed Smith of the [Missouri Coalition for the Environment](http://www.moenviron.org/) said that even though the reactors that could be placed at the site are smaller, the risks they bring, in terms of possible meltdowns and storage of waste, remain the same. “The environmental impact of a small modular reactor melting down would not be as great as the Callaway reactor melting down,” Smith said, “because it operates at a lower temperature and contains less radioactive material in the fuel rods. But if you have a multiple meltdown of five reactors, you are going to see the same kind of problems in theory as you would have from a large reactor.”

#### SMRs cooling system is uniquely susceptible to explosion once the meltdown begins

Makhijani & Boyd 2010 (IEER Institute of energy and environmental research <http://ieer.org/wp/wp-content/uploads/2010/09/small-modular-reactors2010.pdf>) JA

Of the various types of proposed SMRs, liquid metal fast reactor designs pose particular safety concerns. Sodium leaks and fires have been a central problem—sodium explodes on contact with water and burns on contact with air. Sodium-potassium coolant, while it has the advantage of a lower melting point than sodium, presents even greater safety issues, because it is even more flammable than molten sodium alone. 14 . Sodium-cooled fast reactors have shown essentially no positive learning curve (i.e., experience has not made them more reliable, safer, or cheaper) The world’s first nuclear reactor to generate electricity, the EBR I in Idaho, was a sodiumpotassium-cooled reactor that suffered a partial meltdown. 22 EBR II, which was sodium cooled reactor, operated reasonably well, but the first US commercial prototype, Fermi I in Michigan had a meltdown of two fuel assemblies and, after four years of repair, a sodium explosion. 23 The most recent commercial

#### Nuclear power is unreliable and increases the blackout risk – UK proves.

Benjamin, Contributor, ‘7

[Alison, “Half of nuclear power stations closed for repairs”, The Guardian, 10-23-7

<http://www.guardian.co.uk/uk/2007/oct/23/nuclear.world>, RSR]

"This is a very high proportion - 16 nuclear power stations, seven out of action. That's almost unprecedented, and I think it is pretty worrying that they themselves have a major problem as a result of breakdowns and the need for repair and maintenance. "One needs certainty and the nuclear industry doesn't provide it." A spokesman for the National Grid said the shutdown would not lead to any blackouts or power shortages. "We are going into winter with a 26% generation margin, which is the difference between the available energy generation and forecast demand, so we will be able to meet demand," he added. He said that it was not usual for a number of nuclear or coal-fired power stations to be closed at any one time. Neil Crumpton, a Friends of the Earth nuclear campaigner, said the shutdown of almost half Britain's nuclear power stations demonstrated the unreliability of this form of energy. "If there is a problem with one nuclear power reactor, others which follow the same design will also have to close," he said. "Critics say that renewables are unreliable, but this shutdown shows that nuclear power is intermittent."

#### Blackouts are not a relevant economic statistic.

Uchitelle 3 (August 16, International Herald Tribune, http://query.nytimes.com/gst/fullpage.html?res=9C00E2DB1530F935A2575BC0A9659C8B63)

''Blackouts are economically like snowstorms,'' said Mark M. Zandi, the chief economist at Economy.com, referring to the 1965 and 1977 power failures, as well as this latest one. ''They are a nuisance, but not a measurable one in the statistics that record the year's economic activity.'' Airlines, restaurants and retail stores have clearly been hurt. But for the economy as a whole, blackouts and snowstorms mostly delay economic activity and rearrange it, taking from one sector and giving to another, economists say. For every suit not sold at Saks, a generator may be sold at Lowe's to someone newly interested in protection from the next blackout. The lost power closed retail stores and halted Internet shopping, canceling purchases or delaying them until next week or next month. The same thing happened after the blizzard in the Northeast on Feb. 17, which was the Washington's Birthday holiday, one of the biggest shopping days of the year. The lost business was enough to make national retail sales for February dip by $4.3 billion. But in March they rebounded, rising by $6.3 billion. Much of the revenue from canceled airline flights is recovered; the disappointed ticketholders eventually travel. Their tickets are mostly ''prebooked and nonrefundable,'' said Robert W. Mann, an aviation industry consultant based in Port Washington, N.Y. What the airlines do not recover, though, are the considerable sums for hotel rooms and meals for passengers whose flights are canceled, Mr. Mann said. Restaurants and theaters forced to close suffer a similar loss in revenue. It may be partly offset in several ways. Thousands of police officers, for example, will get handsome overtime checks, which they will spend, said Lee Price, director of research at the Economic Policy Institute. Spending is also likely to rise for flashlights and batteries, and for improvements to the nation's power grid. ''It is a wash, and you really cannot see it in the aggregate statistics,'' Mr. Price said. Or as Chris Varvares, the president of Macroeconomic Advisers, a St. Louis consulting and forecasting firm, put it: ''The blackout is going to be lost in the rounding.''

## Case

### Warming

#### They say most recent data goes aff – actually that goes neg. Satellite data will always be better than their ground based systems and computer models. Models are empricially flawed and ground based systems have alt causes to them. All of the 1AC claims are suspect and disputed by NASA. They say scientific consensus goes aff – doesn’t model. Better data goes neg. That’s more objective. This also answers CO2 outweighs

#### Statistically proven:

#### -Zero evidence of warming now

#### -Their authors are paid off

#### -Assumes IPCC studies

#### -And this answers their indicts – newest evidence. STAR THIS CARD.

Allegre, et. al, ‘12

[Claude (former director of the Institute for the Study of the Earth, University of Paris), Scott Armstrong (cofounder of the Journal of Forecasting and the International Journal of Forecasting;, Jan Breslow (head of the Laboratory of Biochemical Genetics and Metabolism, Rockefeller University), Roger Cohen (fellow, American Physical Society), Edward David (member, National Academy of Engineering and National Academy of Sciences), William Happer (professor of physics, Princeton); Michael Kelly (professor of technology, University of Cambridge, U.K.), William Kininmonth (former head of climate research at the Australian Bureau of Meteorology), Richard Lindzen (professor of atmospheric sciences, MIT), James McGrath (professor of chemistry, Virginia Technical University), Rodney Nichols (former president and CEO of the New York Academy of Sciences), Burt Rutan (aerospace engineer, designer of Voyager and SpaceShipOne), Harrison H. Schmitt (Apollo 17 astronaut and former U.S. senator), Nir Shaviv (professor of astrophysics, Hebrew University, Jerusalem), Henk Tennekes (former director, Royal Dutch Meteorological Service, Antonio Zichichi, (president of the World Federation of Scientists, Geneva), Wall Street Journal, “No Need to Panic About Global Warming”, 1-27-12,

http://online.wsj.com/article/SB10001424052970204301404577171531838421366.html, NP]

No Need to Panic About Global Warming Editor's Note: The following has been signed by the 16 scientists listed at the end of the article: A candidate for public office in any contemporary democracy may have to consider what, if anything, to do about "global warming." Candidates should understand that the oft-repeated claim that nearly all scientists demand that something dramatic be done to stop global warming is not true. In fact, a large and growing number of distinguished scientists and engineers do not agree that drastic actions on global warming are needed. In September, Nobel Prize-winning physicist Ivar Giaever, a supporter of President Obama in the last election, publicly resigned from the American Physical Society (APS) with a letter that begins: "I did not renew [my membership] because I cannot live with the [APS policy] statement: 'The evidence is incontrovertible: Global warming is occurring. If no mitigating actions are taken, significant disruptions in the Earth's physical and ecological systems, social systems, security and human health are likely to occur. We must reduce emissions of greenhouse gases beginning now.' In the APS it is OK to discuss whether the mass of the proton changes over time and how a multi-universe behaves, but the evidence of global warming is incontrovertible?" In spite of a multidecade international campaign to enforce the message that increasing amounts of the "pollutant" carbon dioxide will destroy civilization, large numbers of scientists, many very prominent, share the opinions of Dr. Giaever. And the number of scientific "heretics" is growing with each passing year. The reason is a collection of stubborn scientific facts. Perhaps the most inconvenient fact is the lack of global warming for well over 10 years now. This is known to the warming establishment, as one can see from the 2009 "Climategate" email of climate scientist Kevin Trenberth: "The fact is that we can't account for the lack of warming at the moment and it is a travesty that we can't." But the warming is only missing if one believes computer models where so-called feedbacks involving water vapor and clouds greatly amplify the small effect of CO2. The lack of warming for more than a decade—indeed, the smaller-than-predicted warming over the 22 years since the U.N.'s Intergovernmental Panel on Climate Change (IPCC) began issuing projections—suggests that computer models have greatly exaggerated how much warming additional CO2 can cause. Faced with this embarrassment, those promoting alarm have shifted their drumbeat from warming to weather extremes, to enable anything unusual that happens in our chaotic climate to be ascribed to CO2. The fact is that CO2 is not a pollutant. CO2 is a colorless and odorless gas, exhaled at high concentrations by each of us, and a key component of the biosphere's life cycle. Plants do so much better with more CO2 that greenhouse operators often increase the CO2 concentrations by factors of three or four to get better growth. This is no surprise since plants and animals evolved when CO2 concentrations were about 10 times larger than they are today. Better plant varieties, chemical fertilizers and agricultural management contributed to the great increase in agricultural yields of the past century, but part of the increase almost certainly came from additional CO2 in the atmosphere. Corbis Although the number of publicly dissenting scientists is growing, many young scientists furtively say that while they also have serious doubts about the global-warming message, they are afraid to speak up for fear of not being promoted—or worse. They have good reason to worry. In 2003, Dr. Chris de Freitas, the editor of the journal Climate Research, dared to publish a peer-reviewed article with the politically incorrect (but factually correct) conclusion that the recent warming is not unusual in the context of climate changes over the past thousand years. The international warming establishment quickly mounted a determined campaign to have Dr. de Freitas removed from his editorial job and fired from his university position. Fortunately, Dr. de Freitas was able to keep his university job. This is not the way science is supposed to work, but we have seen it before—for example, in the frightening period when Trofim Lysenko hijacked biology in the Soviet Union. Soviet biologists who revealed that they believed in genes, which Lysenko maintained were a bourgeois fiction, were fired from their jobs. Many were sent to the gulag and some were condemned to death. Why is there so much passion about global warming, and why has the issue become so vexing that the American Physical Society, from which Dr. Giaever resigned a few months ago, refused the seemingly reasonable request by many of its members to remove the word "incontrovertible" from its description of a scientific issue? There are several reasons, but a good place to start is the old question "cui bono?" Or the modern update, "Follow the money." Alarmism over climate is of great benefit to many, providing government funding for academic research and a reason for government bureaucracies to grow. Alarmism also offers an excuse for governments to raise taxes, taxpayer-funded subsidies for businesses that understand how to work the political system, and a lure for big donations to charitable foundations promising to save the planet. Lysenko and his team lived very well, and they fiercely defended their dogma and the privileges it brought them. Speaking for many scientists and engineers who have looked carefully and independently at the science of climate, we have a message to any candidate for public office: There is no compelling scientific argument for drastic action to "decarbonize" the world's economy. Even if one accepts the inflated climate forecasts of the IPCC, aggressive greenhouse-gas control policies are not justified economically. A recent study of a wide variety of policy options by Yale economist William Nordhaus showed that nearly the highest benefit-to-cost ratio is achieved for a policy that allows 50 more years of economic growth unimpeded by greenhouse gas controls. This would be especially beneficial to the less-developed parts of the world that would like to share some of the same advantages of material well-being, health and life expectancy that the fully developed parts of the world enjoy now. Many other policy responses would have a negative return on investment. And it is likely that more CO2 and the modest warming that may come with it will be an overall benefit to the planet. If elected officials feel compelled to "do something" about climate, we recommend supporting the excellent scientists who are increasing our understanding of climate with well-designed instruments on satellites, in the oceans and on land, and in the analysis of observational data. The better we understand climate, the better we can cope with its ever-changing nature, which has complicated human life throughout history. However, much of the huge private and government investment in climate is badly in need of critical review. Every candidate should support rational measures to protect and improve our environment, but it makes no sense at all to back expensive programs that divert resources from real needs and are based on alarming but untenable claims of "incontrovertible" evidence. Claude Allegre, former director of the Institute for the Study of the Earth, University of Paris; J. Scott Armstrong, cofounder of the Journal of Forecasting and the International Journal of Forecasting; Jan Breslow, head of the Laboratory of Biochemical Genetics and Metabolism, Rockefeller University; Roger Cohen, fellow, American Physical Society; Edward David, member, National Academy of Engineering and National Academy of Sciences; William Happer, professor of physics, Princeton; Michael Kelly, professor of technology, University of Cambridge, U.K.; William Kininmonth, former head of climate research at the Australian Bureau of Meteorology; Richard Lindzen, professor of atmospheric sciences, MIT; James McGrath, professor of chemistry, Virginia Technical University; Rodney Nichols, former president and CEO of the New York Academy of Sciences; Burt Rutan, aerospace engineer, designer of Voyager and SpaceShipOne; Harrison H. Schmitt, Apollo 17 astronaut and former U.S. senator; Nir Shaviv, professor of astrophysics, Hebrew University, Jerusalem; Henk Tennekes, former director, Royal Dutch Meteorological Service; Antonio Zichichi, president of the World Federation of Scientists, Geneva.

#### Nuclear power produces heat emissions which exacerbate global warming

Science Daily 9 (July 13th, Trapping Carbon Dioxide Or Switching To Nuclear Power Not Enough To Solve Global Warming Problem, Experts Say, http://www.sciencedaily.com/releases/2009/07/090713085248.htm)

Attempting to tackle climate change by trapping carbon dioxide or switching to nuclear power will not solve the problem of global warming, according to energy calculations published in the July issue of the International Journal of Global Warming. Bo Nordell and Bruno Gervet of the Department of Civil and Environmental Engineering at Luleå University of Technology in Sweden have calculated the total energy emissions from the start of the industrial revolution in the 1880s to the modern day. They have worked out that using the increase in average global air temperature as a measure of global warming is an inadequate measure of climate change. They suggest that scientists must also take into account the total energy of the ground, ice masses and the seas if they are to model climate change accurately. The researchers have calculated that the heat energy accumulated in the atmosphere corresponds to a mere 6.6% of global warming, while the remaining heat is stored in the ground (31.5%), melting ice (33.4%) and sea water (28.5%). They point out that net heat emissions between the industrial revolution circa 1880 and the modern era at 2000 correspond to almost three quarters of the accumulated heat, i.e., global warming, during that period. Their calculations suggest that most measures to combat global warming, such as reducing our reliance on burning fossil fuels and switching to renewables like wind power and solar energy, will ultimately help in preventing catastrophic climate change in the long term. But the same calculations also show that trapping carbon dioxide, so-called carbon dioxide sequestration, and storing it deep underground or on the sea floor will have very little effect on global warming. "Since net heat emissions accounts for most of the global warming there is no or little reason for carbon dioxide sequestration," Nordell explains, "The increasing carbon dioxide emissions merely show how most net heat is produced. The "missing" heat, 26%, is due to the greenhouse effect, natural variations in climate and/or an underestimation of net heat emissions, the researchers say. These calculations are actually rather conservative, the researchers say, and the missing heat may be much less. The researchers also point out a flaw in the nuclear energy argument. Although nuclear power does not produce carbon dioxide emissions in the same way as burning fossil fuels it does produce heat emissions equivalent to three times the energy of the electricity it generates and so contributes to global warming significantly, Nordell adds.

### Aerosol

#### They say warming now – answered above.

Extend 1NC #5: Castro 12 – Even if they solve pollutants, that’s bad – current molecular reactions with air pollutants in the lower atmosphere act as a natural solar shield against warming.

This takes out their terminal impact – as long as we don’t try to prevent emissions or pollution, our natural solar shield will prevent any chance of extinction. It also proves that the direction of their internal link goes negative – there’s only a risk that their actions to solve warming just make it worse by destroying our natural line of defense.

Prefer our evidence – it’s scientifically backed and post-dates their internal link evidence.

And, this turns case – pollutants are key to reflecting solar radiation

Daley 12 (Adam, “Researchers Identify Molecules that Counter Global Warming,” 1/12/2012, <http://www.medicaldaily.com/news/20120112/8732/pollution-global-warming-climate-change-o-zone-atmosphere-criegee-biradicals.htm>, NP)

Scientists have always known about invisible molecules called Criegee biradicals in the atmosphere, but now they know how they react with pollutants. The chemical intermediates are powerful oxidizers of pollutants like nitrogen and sulfur that naturally clean the atmosphere – forming aerosol and eventually clouds, according to a new study published in the journal Science. Aerosols play a key role in reflecting solar radiation back into space, and knowing how Criegee biradicals react with pollutants to form them could play a major role in off-setting climate change. “Our results will have a significant impact on our understanding of the oxidizing capacity of the atmosphere and have wide ranging implications for pollution and climate change,” said Dr. Carl Percival from the University of Manchester.

### Anthropogenic

#### Warming is not anthropogenic – trends flow neg in that warming trends have been independent of what humans have been doing. Empirically proven by the Middle Age Warming period. Their answers are not good enough.

#### Not anthropogenic & historical data disproves.

Deaver 10, The Times Herald, “Deaver: Cap and Trade bill not the answer to global warming,” 8/10/2010, http://www.thetimesherald.com/article/20100810/OPINION02/8100310/Deaver-Cap-and-Trade-bill-not-the-answer-to-global-warming

Wait a minute! While it is true that there is general agreement that there is a greenhouse gas effect, there is no agreement about the importance of CO2, which is a tiny fraction of such gases. Here are some facts that should tell us to be cautious about introducing costly economic measures that might not do anything to alleviate the situation. First, there is no scientific proof that global warming is caused by CO2. There is only knowledge that over the past 150 years CO2 emissions generally and very roughly correspond to rising global temperatures. Second, during the Middle Ages--from about the years 1000 to 1300--an abundance of evidence reveals a period of warming that probably exceeded that of the present period. Greenland was green then. Yet there was no industrial revolution to cause it, and no evidence of any corresponding increase in CO2 from other sources. Third, there is a growing body of evidence, mainly from Arctic and Antarctic ice cores, that reveal long-term temperature cycles associated with variations in the sun's radiation that could explain the recent warming. The main point is scientists do not have positive evidence either about future climate trends or the fundamental causes of climate change. This suggests government programs such as Cap-and-Trade to deal with CO2 emissions, while imposing huge costs in terms of jobs and slower economic growth, could fail to have any impact on global warming.

#### They say positive feedbacks – that’s answered above.

### Ice Age

#### We don’t say ice age but we say warming leads to extinction is as likely as ice age. No reason that warming leads to extinction. Impacts take too long meaning reason to prefer DA impacts on time frame. No warming in the past 15 years empirically prove this.

#### Even if they win warming – It won’t cause extinction - newest studies that assume your authors

INPCC 11 (Nongovernmental International Panel on Climate Change. Surviving the unprecedented climate change of the IPCC. 8 March 2011. http://www.nipccreport.org/articles/2011/mar/8mar2011a5.html) Nisarg

In a paper published in Systematics and Biodiversity, Willis et al. (2010) consider the IPCC (2007) "predicted climatic changes for the next century" -- i.e., their contentions that "global temperatures will increase by 2-4°C and possibly beyond, sea levels will rise (~1 m ± 0.5 m), and atmospheric CO2will increase by up to 1000 ppm" -- noting that it is "widely suggested that the magnitude and rate of these changes will result in many plants and animals going extinct," citing studies that suggest that "within the next century, over 35% of some biota will have gone extinct (Thomas et al., 2004; Solomon et al., 2007) and there will be extensive die-back of the tropical rainforest due to climate change (e.g. Huntingford et al., 2008)." On the other hand, they indicate that some biologists and climatologists have pointed out that "many of the predicted increases in climate have happened before, in terms of both magnitude and rate of change (e.g. Royer, 2008; Zachos et al., 2008), and yet biotic communities have remained remarkably resilient (Mayle and Power, 2008) and in some cases thrived (Svenning and Condit, 2008)." But they report that those who mention these things are often "placed in the 'climate-change denier' category," although the purpose for pointing out these facts is simply to present "a sound scientific basis for understanding biotic responses to the magnitudes and rates of climate change predicted for the future through using the vast data resource that we can exploit in fossil records." Going on to do just that, Willis et al. focus on "intervals in time in the fossil record when atmospheric CO2 concentrations increased up to 1200 ppm, temperatures in mid- to high-latitudes increased by greater than 4°C within 60 years, and sea levels rose by up to 3 m higher than present," describing studies of past biotic responses that indicate "the scale and impact of the magnitude and rate of such climate changes on biodiversity." And what emerges from those studies, as they describe it, "is evidence for rapid community turnover, migrations, development of novel ecosystems and thresholds from one stable ecosystem state to another." And, most importantly in this regard, they report "there is very little evidence for broad-scale extinctions due to a warming world." In concluding, the Norwegian, Swedish and UK researchers say that "based on such evidence we urge some caution in assuming broad-scale extinctions of species will occur due solely to climate changes of the magnitude and rate predicted for the next century," reiterating that "the fossil record indicates remarkable biotic resilience to wide amplitude fluctuations in climate."

### Agriculture

#### They say agriculture. CO2 is good to increase fertilization of plants which is key to solving disease and famine. We solve the IL. That’s Idso.

### CO2

#### CO2 doesn’t really matter. Even if it does, warming doesn’t matter. That’s the Idso evidence on case. No correlation using data. Evidence above indicts your science.

#### CO2 doesn’t cause warming- its colder now with more of it

Idso and Idso 2011 Craig D. (founder and chairman of the board of the Center for the Study of Carbon Dioxide and Global Change) Sherwood B. (president of the Center for the Study of Carbon Dioxide and Global Change) February “Carbon Dioxide and Earth’s Future Pursuing the Prudent Path” http://www.co2science.org/education/reports/prudentpath/prudentpath.pdf.

But could the higher temperatures of the past four interglacials have been caused by higher CO2 concentrations due to some non-human influence? Absolutely not, for atmospheric CO2 concentrations during all four prior interglacials never rose above approximately 290 ppm, whereas the air's CO2 concentration today stands at nearly 390 ppm. Combining these two observations, we have a situation where, compared with the mean conditions of the preceding four interglacials, there is currently 100 ppm more CO2 in the air than there was then, and it is currently more than 2°C colder than it was then, which adds up to one huge discrepancy for the world's climate alarmists and their claim that high atmospheric CO2 concentrations lead to high temperatures. The situation is unprecedented, all right, but not in the way the public is being led to believe.

### Ocean Acidification

#### They say ocean acidification – answered before. The ocean is very resilient and there has been no change in pH levels which are the best indicators of how the oceans are doing. Newest research goes aff. That’s WSJ.

#### Turn – acidification is beneficial to the oceans.

CO2 Science 9 (CO2 Science disseminates factual reports and sound commentary on new developments in the world-wide scientific quest to determine the climatic and biological consequences of the ongoing rise in the air's CO2 content. “Ocean Acidification Database.”<http://www.co2science.org/data/acidification/results.php>, 2009, JGR)

The low-end boundary of the unrealistic highlighted region of pH reduction in Figure 2 is 0.5, which represents the high-end or maximum value of most IPCC-based projections of CO2-induced pH reduction, which occurs in the vicinity of AD 2300. Thus, there should be little argument -- even from people who think ocean acidification is going to be a problem -- in excluding all values beyond a pH decline of 0.5 when considering how ocean acidification might realistically affect earth's marine life. In the next figure, we plot the results of all experiments that employed a seawater pH decline that fell somewhere in the still-more-likely-to-occur range of 0.0 to 0.3, where the latter value is the approximate IPCC-derived pH decline in the vicinity of AD 2100. Then, within this range, we highlight (in grey) the much smaller seawater pH reduction range that derives from the work of Tans (2009), who derived a maximum pH decline that could fall anywhere within an uncertainty range of 0.09 to 0.17 by about AD 2100, after which seawater pH begins its long-term recovery. We do this because we consider the analysis of Tans to be more realistic than the analysis of the IPCC. Thus, we would consider data within the pH reduction range of 0.0 to 0.17 as being most characteristic of what might possibly occur in the real world, as time marches on and fossil fuel burning continues as per business as usual. And, interestingly enough -- and even incorporating pH reduction data all the way out to 0.30 -- the linear trend of all the data is actually positive, indicating an overall beneficial response of the totality of the five major life characteristics of marine sea life to ocean acidification, which result is vastly different from the negative results routinely predicted by the world's climate alarmists.

### Solvency

#### They say investment solves – costs are still too high to make it anyway viable. That’s the 1NC evidence.

#### Low estimates are wishful thinking.

Makhijani & Boyd 2010 (IEER Institute of energy and environmental research <http://ieer.org/wp/wp-content/uploads/2010/09/small-modular-reactors2010.pdf>) JA

These cost increases are unlikely to be offset even if the entire reactor is manufactured at a central facility and some economies are achieved by mass manufacturing compared to large reactors assembled on site. Furthermore, estimates of low prices must be regarded with skepticism due to the history of past cost escalations for nuclear reactors and the potential for cost increases due to requirements arising in the process of NRC certification. Some SMR designers are proposing that no prototype be built and that the necessary licensing tests be simulated. Whatever the process, it will have to be rigorous to ensure safety, especially given the history of some of proposed designs.

#### Every dollar in government-directed spending trades off with new, more competitive technologies

Burnett, senior fellow at the National Center for Policy Analysis, ‘12

[Sterling, “Energy Loserville: U.S. DOE Picks in an Artificial Industry”, MasterResource, A Free Market Energy Blog, 7-9-12,

<http://www.masterresource.org/2012/07/losing-us-green-subsidies/>, RSR]

This latter point is perhaps the greatest weakness of any benefit/cost analysis of any government subsidies. These subsidies substitute the government’s judgment about what the public should want for the public’s own judgment as express through their choices in the marketplace. There are huge opportunity costs to such government directed spending. The money spent developing and promoting a green energy industry (especially one that has subpar development results) is \*money not spent innovating, not available to entrepreneurs to discover the next big thing(whether it be energy source or entertainment device), \* jobs not created in other sectors of the economy(and maybe in some industries that haven’t been created yet), \*money not available for better education or health care,or \* money not available to reduce the annual deficit and overall debt. This, in my opinion, is the real economic loss. More Bad Bets? In the face of these multiple “successes,” the Obama administration wants to double down and throw more good money after bad. It’s never worked before, but hey, there’s always a first time, Right? Election season, and bad ideology, have put the sitting President at odds with reality.

### No War

#### Democracy doesn’t check – history proves.

Kupchan, Professor of International Affairs at Georgetown University, ‘11

[Charles A, April, “Enmity into Amity: How Peace Breaks Out,”

<http://library.fes.de/pdf-files/iez/07977.pdf>]

Second, contrary to conventional wisdom, democracy is not a necessary condition for stable peace. Although liberal democracies appear to be better equipped to fashion zones of peace due to their readiness to institu­tionalize strategic restraint and their more open societies – an attribute that advantages societal integration and narrative/identity change – regime type is a poor predic­tor of the potential for enemies to become friends. The Concert of Europe was divided between two liberalizing countries (Britain and France) and three absolute monar­chies (Russia, Prussia, and Austria), but nevertheless pre­served peace in Europe for almost four decades. Gen-eral Suharto was a repressive leader at home, but after taking power in 1966 he nonetheless guided Indonesia toward peace with Malaysia and played a leading role in the founding of ASEAN. Brazil and Argentina embarked down the path to peace in 1979 – when both countries were ruled by military juntas. These findings indicate that non-democracies can be reliable partners in peace and make clear that the United States, the EU, and de­mocracies around the world should choose enemies and friends on the basis of other states’ foreign policy behav-ior, not the nature of their domestic institutions.

#### Int dependence doesn’t check the motivational factors behind policies. That’s Jervis. League of nations disproves your claim.

#### Not all countries are reliant on trade and there’s no descalation. Mearsheimer answers. Economics makes conflict inevitable. Prefer specificity on the claim on each DA.

#### Energy competition increases the risk of major power escalation

Klare, A professor of peace and world security studies at Hampshire College, 2008

(Michael T.,"The End of the World as You Know It,", http://zmag.org/znet/viewArticle/17176)

Until very recently, the mature industrial powers of Europe, Asia, and North America consumed the lion's share of energy and left the dregs for the developing world. As recently as 1990, the members of the Organization of Economic Cooperation and Development (OECD), the club of the world's richest nations, consumed approximately 57% of world energy; the Soviet Union/Warsaw Pact bloc, 14% percent; and only 29% was left to the developing world. But that ratio is changing: With strong economic growth in the developing countries, a greater proportion of the world's energy is being consumed by them. By 2010, the developing world's share of energy use is expected to reach 40% and, if current trends persist, 47% by 2030. China plays a critical role in all this. The Chinese alone are projected to consume 17% of world energy by 2015, and 20% by 2025 -- by which time, if trend lines continue, it will have overtaken the United States as the world's leading energy consumer. India, which, in 2004, accounted for 3.4% of world energy use, is projected to reach 4.4% percent by 2025, while consumption in other rapidly industrializing nations like Brazil, Indonesia, Malaysia, Thailand, and Turkey is expected to grow as well.**These rising economic dynamos will have to compete with the mature economic powers for access to remaining untapped reserves of exportable energy** -- in many cases, bought up long ago by the private energy firms of the mature powers like Exxon Mobil, Chevron, BP, Total of France, and Royal Dutch Shell. Of necessity, the new contenders have developed a potent strategy for competing with the Western "majors": they've created state-owned companies of their own and fashioned strategic alliances with the national oil companies that now control oil and gas reserves in many of the major energy-producing nations.

#### Nuke winter would turn back and we cause massive changes in the environment. That’s Phillips. Turns your warming advantages.