Contesting Alternative Energy: Benefits, Drawbacks, and Alternative Approaches

by Stefan Bauschard

Resolved:

The United States federal government should substantially increase alternative energy incentives in the United States.

Introduction

This year's resolution introduces three central questions: Should alternative energy (AE) technologies be developed; should those technologies be developed through approaches that rely on incentives; should it be the United States federal government that develops those technologies? This essay will focus on unpacking arguments that affirmative and negative teams can used to address the central questions that have just been discussed.

In order to answer all of these questions, it is important to understand what "AE" technologies, "incentives," and the "United States federal government" are.

AE technologies are generally considered to be energy forms that are focused on transitioning away from fossil fuels. Fossil fuels include all fuels that are derived from fossil sources, such as oil, coal, and natural gas. These sources are considered "non-renewable" because human consumption of the fuels exceeds the decay rate of the fossils that make the fuel possible. Many affirmative advantages and negative disadvantages stem from the consequences of reducing reliance on these fossil fuel sources.

The term "incentives" is rather ambiguous, but is certain to include direct financial payments, and possibly regulations and regulation-based systems that include positive incentive schemes such as tradable permits. The workability and desirability of most affirmative plans will come down to the merits of particular incentives, and the best negative counterplan ground will stem from offering non-incentive stimulants or incentives that are distinct from the incentives offered by the affirmative plan.

There is little debate over whether the "United States federal government" refers to the central government in Washington, D.C., but there is a debate about whether or not the United States federal government should be the agent that offers the incentives. Many negative teams will argue that the incentives should instead be offered by state governments or by other international actors such as the European Union.

Affirmative Advantages – The Harms of Fossil Fuels

Most affirmative advantages will stem from the harms of the continued consumption of fossil fuels. These harms can be broken-down into a number of separate arguments that will serve as the basis for distinct advantages.

Climate change. Climate change is arguably the biggest harm that results from the continued reliance on fossil fuels. Climate change occurs because the burning of fossil fuels to produce energy emits CO2 into the atmosphere. This CO2 then functions to trap heat in the atmosphere, warming the planet. Such warming is potentially responsible for food production declines in the southern hemisphere, the melting of the polar ice caps and rising sea levels, the greater frequency of high-intensity storms, and the bleaching of coral reefs. There is outstanding evidence that all of these impacts, and many more, threaten the survival of life on the planet.

The terms "global warming" and "climate change" are used interchangeably, not only through this essay but also both in the media and professional resources, because scientists now believe that that all of the impacts do not stem merely from the warming of the earth but from changing climate patterns that result from the trapping of greenhouses gases by CO2.

Oil dependence. The second most frequently cited harm to the continued reliance on fossil fuels results from the United States being dependent on foreign countries for the oil that it consumes. Approximately sixty-six percent of all oil consumed in the United States is from foreign sources. This dependence is problematic for a number of reasons. First, it makes the U. S. vulnerable to supply cut-offs. In 1973, Arab states embargoed the sale of oil to the U. S. and other allies of Israel that were supporting Israel in the Yom Kippur war. As supply dropped, this embargo led to dramatic price increases in the U.S. and threatened the economy. While most experts believe that another embargo is unlikely, a supply cut-off could occur in the future as a result of the outbreak of conflict in the Middle East. One of the most frequently cited scenarios is that in a conflict with Iran, Iran may militarily shut down the Strait of Hormuz. Since 30% of the world's oil passes through the strait, closing it down would also likely result in a dramatic increase in oil prices.

Second, heavy oil dependence requires the U. S. to project considerable military power into the Middle East in order to secure a steady supply of oil both to itself and to its allies. Rationales for both Iraq wars included preventing Iraq's Saddam Hussein from threatening regional oil supplies. The U. S. has built many alliance relationships in the Middle East in order to protect the flow of oil. These relationships are incredibly costly both in terms of the direct economic price, but also in terms of the lives of many U.S. service members and the strain it places on our military. A strong U.S. military presence in the Middle East may also contribute to the radicalization of many societies and greater instability.

Third, reliance on foreign oil widens the growing U.S. trade deficit, which accounts for the low financial value of exports vs. imports. A rising trade deficit threatens the economy because it increases our dependence on foreign capital to finance development in the United States. If foreign entities stop financing our deficits, the economy could crash.

Fourth, and related to the third argument, is that heavy oil dependence in a world of skyrocketing prices is resulting in a dramatic shift of wealth from Western countries to the developing world. This wealth transfer threatens the foundations of the economy and overall U.S. global leadership.

Oil shortages. Related to the issue of oil dependence is the issue of oil shortages. Since fossil fuels take thousands of years to generate, practically speaking there is a finite supply of oil, and all of the oil that does exist is not necessarily recoverable due to geopolitical restraints. Dwindling supplies of oil could trigger military conflicts over remaining resources and could result in price spikes that threaten the economy. Oil demand is projected to continue to grow worldwide, increasing both prices and the risk of conflict over dwindling supplies.

Pollution. Pollution that results from the generation of energy from fossil fuels takes many forms. The burning of coal produces acid rain that threatens human health and the environment, particularly in the Northeast. Particulates that result from the burning of fossil fuels also threaten human health. The transportation of oil risks oil spills that threaten aquatic ecosystems.

U.S. leadership and soft power. The failure of the United States to commit to specific, binding emissions reductions arguably undermines overall U.S. global leadership. Action to reduce U.S. dependence on fossil fuels could boost U.S. global soft power and boost our international leadership and global hegemony.

Affirmatives Advantages – The Harms of Particular Alternative Energy Sources

While most affirmative advantages will stem from replacing fossil fuel consumption with energy derived from AE, affirmatives will also claim advantages that stem from undermining existing AE technologies.

Nuclear power bad. Affirmatives will claim that developing renewable energy technologies crowds out the development of nuclear power and that nuclear power is bad. Teams will argue that nuclear power risks nuclear accidents, nuclear proliferation, nuclear terrorism, and will leave us with a dangerous collection of nuclear waste.

Ethanol bad. Ethanol is an alternative energy resource that relies on burning biomass to make energy. The biomass that is burned is usually food products, particularly corn, and the argument is that the burning of this biomass threatens the environment and creates upward pressure on the price of food, placing millions of people at risk of starvation.

Affirmative Advantages – The Benefits of Alternative Energy

In addition to avoiding the problems associated with continued reliance on fossil fuels, the development AE can also produce many direct benefits.

Competitiveness. The most general benefit of increasing the development of AE technologies in the United States is that U.S. companies will be able to compete better internationally when exporting those technologies to other countries. These exports will reduce the trade deficit and improve the overall U.S. economy.

Specific benefits. Most AE technologies, such as solar and wind power, do not have benefits that are independent of the advantages obtained from reducing fossil fuel consumption. Some, however, such as solar powered satellites (SPS), may have independent advantages. SPS, for example, may promote international cooperation in space.

International cooperation. One interesting thing about this resolution is that it is only the incentives that have to be increased in the United States, not necessarily the AE. This makes it possible, for example, for the affirmative to increase incentives for the development of solar power satellites. The incentives to develop the satellites would be provided in the United States, but the AE would be used in space. Similarly, affirmatives may provide incentives for U.S. companies to cooperate with Chinese companies on AE projects. Significant advantages could be accrued from diffusing U.S.-China energy competition and those advantages would also provide a rationale for why it is essential for the United States federal government to provide the incentives. The U.S. and China have already started cooperating on biofuels development and the U.S. and Japan have been cooperating on nuclear energy development. Nina Hacigan and Mona Stuphen discuss the potential for cooperation on nuclear fusion:

> In 2006, China and India both joined the U.S.-initiated FutureGen project to develop a zero-emissions coal-fired power plant by 2012. We need more multilateral alternative energy projects, like FutureGen and nuclear fusion, that put Asian scientists to work on problems Americans want to solve also. Such initiatives and similar ones would address the pollution from China's energy policy that also affects American quality of life… (continued, p. 188)…The nuclear fusion project ITER is a promising model. As we discussed in the Introduction, every pivotal power is investing in the first every truly international, large-scale independent, scientific research effort in the history of the world. (Nina Hachigan and Monica Sutphen, Stanford Center for I nternational Security, 2008, The Next American Century p. 107).

Affirmative Plans – Incentivizing Alternative Energy

Before we start to look at specific means of incentivizing AE, we need to take a closer look at what constitutes AE. It is safe to say that everyone agrees that renewable energy sources such as solar, wind, hydroelectric, and biomass are AE sources. Affirmatives that argue in favor of expanding renewable energy resources are likely to be more specific and identify subsidies, for example, for solar photovoltaics, solar thermal, corn ethanol, geothermal, cellulose ethanol, switchgrass ethanol, E85 ethanol, wave power, tidal power, dams, or ocean thermal energy conversion (OTEC), or wind power.

Beyond the consensus that renewable energy sources are included in AE sources, there are a couple of important controversies. First, is nuclear energy considered an AE source? Most definitions of alternative energy include nuclear energy, but there are definitions that do not include it. Most of these definitions and contextual uses are usually by opponents of nuclear power who do not want nuclear to be included in government support for alternative energy technologies.

Affirmatives that argue in favor of nuclear power are unlikely to do so generally, but instead are likely to argue for the development of a particular nuclear power resource, such as fusion, the International Thermonuclear Experimental Reactor (ITER), the pressurized water reactor (PWR), or the Pebble Bed Modular reactor (PBMR), and breeder reactors. Affirmatives will work to argue that many of the problems generally created by nuclear power (such as waste, accidents, and insecurity) are inapplicable to the specific type of nuclear power that they support.

Second, can any fossil fuel based resources be included in the category of AE? Natural gas when used as part of coal gasification has also been considered as an AE source.

Based on this brief discussion, affirmatives can certainly support the development of solar, wind, geothermal, hydro, and biomass sources of energy. They can most likely win that they can develop various forms of nuclear power, and they

may be able to win that some new/alternative energy technologies that still take advantage of fossil fuels constitute AE.

This brings us to a more in-depth discussion of what the affirmative can topically due to incentivize alternative energy development. The word "incentives" is the most ambiguous of all of the terms in the resolution. It is certain to give rise to a nearly endless, largely irresolvable, yet incredibly important series of topicality debates. Most definitions of "incentives" indicate that it at least includes some financial reward. For example, companies that invest in alternative energy may be incentivized by a direct cash payment to assist with the cost of development (a "subsidy"), they may receive a direct payment to cover the cost (a "grant"), they may receive a reduction in their taxes for their actions (a "tax credit"), they may receive a guarantee to a bank that the government will cover the cost of a loan a made to a company to develop a product if that company defaults on the loan (a "loan guarantee"), or they may receive an offer by the government of a loan to any company developing an individual alternative energy product (a "loan"). These incentives do not necessarily need to be limited to companies or individual businesses, but could also be provided to individual people who wish to make AE investments. Individuals, for example, could receive tax credits for purchasing solar panels for their homes.

It is likely that most will agree that the affirmative should have the option of providing a direct financial incentive to companies or individuals that wish to develop alternative energy technologies. Agreement will breakdown, however, when affirmatives begin to work with other mechanisms to encourage AE that they will define as incentives.

The first topicality issue related to "incentives" is whether or not "regulations" constitute incentives. Regulations are requirements that entities do something. For examples, affirmatives may adopt a "renewable portfolio standard," requiring that utilities produce a certain amount of energy, say 20%, from renewable energy sources.

Intuitively, a requirement is different from an incentive. If your parents offer you $20 to complete your homework, that is certainly different than them simply requiring you to do your homework. The distinction starts to break-down, however, when you consider that the requirement that you do your homework is really meaningless without a penalty – say less computer time or a direct financial penalty (regulatory requirements usually come with financial penalties for failure to comply). That penalty is therefore simply a "negative incentive." The affirmative argument will be that since the resolution doesn't specify that the affirmative provide "positive incentives," that negative incentives (a regulation --- do x or be fined) are topical.

Contextually, it is difficult to limit incentives exclusively to positive incentives. An article in *Building Operating Management*, for example, breaks incentives down into two categories/types – financial and regulatory. And, there are other general definitions that indicate that incentives can be negative. Wikipedia's discussion of the term, for example, includes the option of "coercive incentives."

A second question related to incentives is whether or not hybrid negative/positive incentive schemes are topical. The most common example of a hybrid scheme is an emissions trading system that would cap the overall amount of CO2 emissions at a given level, but would enable companies that reduce emissions below their own emissions caps to sell what is essentially a permit to emit CO2 to other companies that are not meeting their own caps. The ability to reduce below the mandated level and sell off permits to other countries that pollute is a positive incentive for emissions reductions. Since these systems include both positive and negative incentives, affirmatives will need to win that negatives incentives are acceptable forms of incentives.

There is also is a separate, but related, question as to whether or not cap & trade systems are alternative energy incentives. These systems incentivize AE development as a means of meeting (and exceeding) CO2 emissions caps, but they do not necessarily directly function as an incentive to develop AE technologies. At the very least, cap & trade may incentivize the development of many different technologies (such as clean coal technologies), many of which will not reduce fossil fuel consumption.

Moreover, since these systems require a regulatory cap on the amount of CO2 that can be emitted, negatives will be able to argue that instituting the cap is extra-topical and essentially allow affirmatives to fiat a reduction in CO2, enabling them to solve even if no AE is developed as a result of the plan. And, since the development of AE is a result of the plan, the negative may claim that the affirmative is only effects topical. Negatives should argue that even if negative incentives are topical that the regulation has to be on the AE technology and not the pollutant. For example, it would be topical to require that a certain percentage of energy be produced with renewable energy – a renewable portfolio standard – but not to cap emissions at a certain level with the goal of encouraging AE development.

While the argument just discussed has a lot of persuasive appeal, attempting to limit affirmatives to incentives that are unique to AE technology is difficult since there is no defined set of "alternative energy incentives." If AE incentives are simply incentives that encourage alternative energy development, and if a permit schemes encourage AE development, then it is as much of a financial incentive as any other. The Yale Forum on Climate Change and the Media explains:

> A tradable permits system can regulate emissions at the point where carbon enters the economy, t he point where greenhouse gases are actually released, or somewhere in between. Under an upstream program, producers and importers of GHG-producing fuels would be required to hold permits for any fuel they sold, based on the GHG emissions associated with those fuels. The price effect of an upstream permit system would spread out throughout the economy, raising the price of energy produced in proportion to carbon releases and creating an incentive for increased energy efficiency and more use of alternative energy generation technologies.

The outcome of these topicality debates will have a tremendous impact on the development of the topic.

If affirmatives are left without any regulatory options because negatives win that "alternative energy incentives" are limited to direct financial transfers for the development of AE, affirmatives will largely be sitting ducks against the states counterplan. Since funding provided by state governments is worth just as much as federal funding, states counterplans will be able to solve most affirmative cases. Although affirmatives will otherwise be able to make strong arguments about the value of federal enforcement of regulation vis-à-vis state regulation, even stronger arguments about the value of federal regulations to instigate international action, they will be deprived of those arguments if the accepted interpretation of the topic limits the

affirmative to direct subsides.

And, if the negatives win the argument that cap & trade mechanisms are both extra and effects topical, affirmatives will be particularly hard-pressed to answer cap & trade counterplans which are likely to solve the advantages, especially climate change and oil dependence advantages, faster and with a more optimal mix of tools. These counterplans are also likely to avoid market manipulation turns as well as politics and spending disadvantages that are linked off of providing substantial cash infusions to industries. Fred Krup, the President of the Environmental Defense Fund, explains:

> Subsidies and mandates have several critical weaknesses. For one, they depend on a degree of detailed knowledge and prescience about the technology beyond the reach of government regulation. They also reward lobbying prowess more than the technologies that actually perform, and can result in perverse outcomes…. The European model of feed-in tariffs richly rewards certain players," says John O'Donnell, a solar power entrepreneur you will meet in the next chapter." And it creates bizarre situations which have nothing to do with slowing climate change." He points to the German subsidy for photovoltaic power as a prime example. Because Germany is a generally un-sunny place, it takes a much as six years for a photovoltaic cell to generate as much electricity as it took to manufacture it. Demand for fossil electricity, therefore, has to drop says O'Donnell: "Not a single coal plant has yet been shut down by this initiative," even while the net cost of electric production (including the big government subsidies) has risen to 50 cents per kilowatt-hour….Market reform is a much more durable and sustainable platform on which to build our long-term investments. We strongly believe that mobilizing capital markets is the best method for deploying these technologies rapidly…..That brings us to the cap-and-trade system – the best way to harness market forces to fix a market failure. Instead of forcing polluters to pay certain prices or to back particular technologies, the cap-and-trade system mandates only the pollution limit, then lets the competitive machinery of the market figure out the cheapest, most efficient way to get there. Mobilizing the market ensures that the hunt for the cheapest technologies will be as broad as possible, ranging as far as the human imagination; only with such a far reaching search will the United States be able to reach the 80 percent reduction in global warming emissions that scientists tell us is necessary to stabilize climate. That broad hunt, in turn, sets in motion a valuable cascading effect: as the market finds the most efficient technologies, and quickly brings down the cost of reducing pollution, the political will builds for even steeper carbon cuts – without the backlash that inevitably follows when the government tries to pick technologies and too often makes the wrong choice. (2008, p. 39-41)

And, since most of the evidence discussing the importance of "U.S. leadership" on climate issues is in reference to the need for the U.S. to adopt a binding cap on emissions, these counterplans will also best capture the affirmative solvency. If cap & trade-style schemes are deemed non-topical, negatives will retain these very potent weapons as counterplans.

One way to demonstrate the significance of this topicality debate is to consider how the outcome impacts the focus of the topic. If you ask most people what the 2008-9 debate topic is, they will say it is about "alternative energy." But if the negative interpretation of the topic that incentives are limited to positive monetary inducements prevails, then I think that this topic really becomes about the desirability of positive incentives for AE vis-à-vis other approaches such as cap & trade that will likely be able to better solve the most common affirmative advantages without risking the downsides of direct financial transfers.

A final issue related to "incentives" is whether or not direct government contracts constitute "incentives." For example, if the government procures (purchases) solar panels for its buildings, does such a purchase constitute an incentive? Are government contracts incentives for the companies that have them? Intuitively, they are not, but they meet the definition – a positive financial incentive. Government procurement affirmatives have been popular on past high school and college topics.

Defending the Status Quo – Attacking the Advantages

There are a number of arguments that the negative can make against the most popular affirmative advantages.

Climate change. The climate change advantage is probably the most difficult advantage for the negative to defeat. There is a substantial body of literature that claims that the earth is warming, that the burning of fossil fuels is largely responsible, and that such climate change will produce devastating impacts. Despite this difficulty, I do have a few suggestions.

First, dispute the relationship between increase CO2 emissions and warming. While it is hard to refute the argument that the earth is warming, there is a dispute as to whether or not humans are responsible. The House has published links to more than 100 articles that challenge the relationship between CO2 and warming.

Second, challenge the rate and impact of climate change. Many climatologists contend that the earth is not warming as fast as predicted and that humans will be able to adapt to climate change. The affirmative is in somewhat of a double-bind: If they win that the rate is fast and there are large impending impacts, it is more difficult for them to solve.

While the affirmative literature is plentiful, there are a more limited number of key resources that the negative should consult. These include Roy Spencer's *Climate Confusion: How Global Warming Hysteria Leads to Bad Science, Pandering Politicians and Misguided Policies* (2008), Dennis Avery's *Unstoppable Global Warming: Every 1500 Years* (2007), Henry Svensmark's, *The Chilling Stars: The New Theory of Climate Change* (2007), Bjorn Ljomborg's *Cool It: The Skeptical Environmentalists Guide to Global Warming* (2007), Lawrence Solomon's *The Deniers: The World Renowned Scientists Who Stood Up Against Global Warming Hysteria, Political Persecution, and Fraud, And Those Who Are Too Fearful to Do So* (2008), Christine Negureanu's *Planet Eris and Global Warming* (2008), and Paul Spite's *Climate Crisis A la Gore: The Real Profit Pushing the Perception of Man-made Global Warming* (2008).

There is also a popular argument that increasing the amount of CO2 benefits agriculture because food crops depend on CO2 for growth. While this argument has won many debates, there are two limitations.

First, the body of literature about the

impact of climate change on agriculture is getting more sophisticated. For example, studies indicate that higher temperatures may lengthen the growing season in northern latitudes, but that increased heat-stress threatens agriculture growth in Africa (You Tube), putting millions of people at-risk of famine. Even if negatives are able to win that increasing CO2 is generally beneficial for plants, affirmatives will probably be able to win that it is bad for specific regions and have impacts that are specific to that region.

Second, the direct benefits of CO2 to plants do not account for the indirect problems. For examples, if the affirmative wins that there will be a substantial number of more intense storms as a result of increased temperatures, these storms will threaten agriculture regardless as to whether or not there are benefits that result from increases in CO2 to plants. Negatives will need to win substantial defense against other climate impacts if they are going to win the CO2 turn.

Oil dependence. It is an incontestable truth that U.S. dependence on foreign sources of oil is increasing. As a result, negatives need to attack this advantage at the impact level and not at the uniqueness level. Unlike the global warming debate where most of the literature favors the affirmative, this impact is highly contestable.

There is good evidence that an oil embargo will not succeed and that Iran's military would be defeated if attempted to close-off the Strait of Hormuz. There is substantial skepticism of the oil peak thesis, that eventually oil prices will return to lower levels and that the U.S. military presence in the Middle East is not driven exclusively by oil consumption.

Pollution. The major affirmative limit of the pollution advantage is that it has a very limited impact. There is evidence that indicates that 500,000 people die each year from pollution. But in the grand scheme of debate impacts, 500,000 lives is not that many dead and even that number assumes the total number of deaths from all sources of pollution – affirmatives will only solve for one form of pollution, and they will probably not be able to isolate the number of deaths from that source.

U.S. leadership. There are two weaknesses to the U.S. leadership advantage. First, most of the evidence that discusses the need for U.S. leadership is on climate change and assumes the need for the U.S. to agree to a binding emissions cap. Many affirmatives will not deal with climate, and those that do are unlikely (for topicality reasons) to address it with an emissions cap. There are also more visible threats to U.S. leadership – Guantanamo Bay, the war in Iraq, and the Bush presidency in general.

Defending the Status Quo – Attacking the Solvency

There are two ways the negative can go about attacking the affirmative solvency.

Attack the mechanism. Since there are fewer incentive approaches to developing renewable energy than there are AE resources, negatives should begin by preparing strong attacks against the ability of different incentives to boost AE development. There is good evidence that subsidization is a failure and that government generally fails to pick the best technologies when providing subsidies. Those who prefer market approaches argue that the subsidies disrupt the market. For a general discussion of the impact of subsidies on energy development, see NEI Nuclear Notes and Studies of Federal Government Energy Interventions. Wikipedia also has an informative general discussion.

There is also a good debate about the merits of prizes – another form of an incentive. Negatives will want to attack prizes if the affirmative chooses that as their incentive, but may also want to consider a prizes counterplan if the affirmative picks subsidies as their plan mechanism.

There are also strong criticisms of regulatory approaches that rely on mandates. Most of the criticisms are similar to those directed at subsidies – they involve the government picking a technology by mandating it rather than letting the market decide which is best, involve significant enforcement and compliance issues, and are very costly for businesses.

Notice again that the cap & trade hybrid approaches that were discussed earlier avoid many of the criticisms discussed here – the government picking the technology winner, market disruptions, and compliance costs are all significantly lessened under these approaches, making them strong plan or counterplan options.

Attack the ability to solve the harm. The most significant affirmative harms – climate change & oil dependence – will be very difficult for the affirmative to solve. There is good evidence, for example, that in order to avoid the climate impacts discussed in the IPCC reports, fossil fuel-based energy consumption would have to decline 25-40% below 1990 levels! Krupp (2008) argues that an 80% reduction beyond current levels is needed! These are staggering reductions that would be nearly impossible to achieve without a questionably topical carbon cap (and even with one). Even if the U.S. were to substantially lessen oil dependence, the U.S. would be just as vulnerable to the price impacts of supply disruptions and shortages because the price of oil is set globally. So if the U.S. only consumed a minimal amount of oil, we would still be vulnerable to high international prices.

Attack the alternative energy source. There is considerable debate about the ability of nuclear power to significantly reduce climate change. Although the generation of nuclear power does not produce CO2 emissions, the construction of the power plants does, and most scientists say thousands of new nuclear plants would have to be built before any significant reduction in climate change occurs. There is also a question of whether or not that many plants could be built quickly enough to address climate change.

The arguments against more conventional renewable energies generally relate to their reliability: Wind farms will not work when it is not windy, solar panels will not collect energy in poor conditions and will not collect it regularly, there is limited space for the expansion of dams, ocean thermal energy conversion projects are not yet feasible on a wide scale, and we lack enough usable biomass for a substantial expansion of ethanol use. Even if energy can be captured and produced, it is incredibly difficult to store, substantially negating any value of producing it in the first place.

It is also important to point out that since a majority of oil is consumed in transportation, and that most of the proposals for expanding the use of AE are for expanding it in the electricity sector where mostly coal is consumed for energy production, many AE proposals would do little to reduce dependence. Affirmatives may focus on developing fuel cells to store the energy for use to replace oil, but the storage technology for these uses is incredibly limited.

Negative Disadvantages – The Harms of Reducing Fossil Fuel Consumption

Disadvantages that stem from the harms of reducing fossil fuel consumption are mostly related to undermining the economies of various countries in the world as a result of reductions in oil consumption. There is substantial evidence that the economies of Russia, Saud Arabia, the Gulf States, Iran, and Nigeria are heavily dependent on the sale of oil and that reductions in demand

will lower prices, threatening the economies of these countries and regions. Economic downturns in these regions could negatively impact the global economy and/or facilitate regional conflicts that could escalate to wider wars. Substantial reductions in oil consumption could also harm our important strategic relationship with Saudi Arabia since reducing purchases may undermine our friendship.

There is also a related, but more complex argument called Backstopping. The argument is best summarized here. The basic idea is that if the U.S. were to initiate a policy that were designed to substantially reduce oil consumption, oil producing states would act to backstop U.S. efforts by dramatically lowering the price of oil. This dramatic drop in prices would hurt their economies in the interim, allowing the negative to get to all of the oil disadvantage scenarios and impacts just discussed, but it would also result in dramatic increases in consumption because the price of energy would fall so dramatically. Low energy prices also mean less revenue for oil companies and less money to invest in finding new energy sources, turning the oil shortages advantages. Long-term increases in consumption would turn the affirmative case.

If the affirmative can topically mandate reductions (see the topicality discussion as to what constitutes an "incentive"), they may be able to avoid this turn, but they will be unable to do so if they are simply providing a subsidy or other generic economic incentives. Subsidies simply lower the price of AE technologies so that they can compete with fossil fuel energy sources, but if the price of the fossil fuel energy resource were to decline so substantially, that subsidy would not be enough to enable it to compete. This argument will turn all or nearly all of the case advantages because it proves that fossil fuel consumption will increase as a result of the plan.

The disadvantages that have been discussed so far all relate to oil, and historically this is where the strongest "fossil fuel good" disadvantages can be found. Disadvantages related to coal consumption have been much more difficult to find. One argument that has survived is a railroads disadvantage. The argument is that without being able to transport coal, the railroad industry in the U.S. would collapse since coal transportation is a large part of its revenue and that a strong rail industry is important to other parts of the economy.

Negative Disadvantages – The Harms of Alternative Energy

The harms of nuclear power and ethanol have already been discussed in the affirmative advantage section. If teams run cases to expand those energy sources, those same arguments apply here as disadvantages. Those two AE sources have the most sizable disadvantages.

Other alternative energy sources do not have sizable disadvantages. Wind farms are considered to be unsightly and kill a number of birds that get caught in the blades. This is also referred to as the "avian mortality" problem. Dams can substantially change the flow of water and threaten regional ecosystems. The production of solar panels releases many toxic chemicals into the environment.

While there is certainly some truth to these harms, remember that the advantages that the affirmative claims will likely be very large, so it is unlikely that the harms of the sources will outweigh the benefits. If the affirmative wins, for example, that their plan avoids climate change that will outweigh the death of some birds from windmills! Unless you are debating an ethanol or nuclear affirmative, the environmental downsides of AE sources are not likely to win too many (if any) negative debates.

Negative Disadvantages – The Harms of Providing Incentives

This section on the "harms of providing the incentives" focuses on the disadvantages of government action to provide the incentives.

Politics. A significant expansion of AE incentive will certainly be, at the very least, quite controversial. There are strong links to the typical political capital and concessions stories. Some of the strongest AE advocates argue that it is difficult to get the government active to incentivize AE because of the strong lobbying power of coal and oil interests.

Elections. There is good evidence that the public wants action to move the U.S. toward AE technologies. Passage of such a policy could be a win for Bush, a win that McCain may share in, and, consequently, a victory for McCain on Election Day. Negatives can argue that a McCain victory will be bad for any number of reasons, but can also use the disadvantage to turn the case – to argue that one of the Democratic candidates (most likely Obama at this point) will promote AE. This disadvantage obviously has utility for only a couple months of the season, but it will be a popular disadvantage with large impacts that the negative can also use to turn the case.

Spending. Substantially expanding incentives will cost a lot of money, widening the deficit and threatening the economy.

Business confidence. The Bush administration has made significant efforts to limit the regulation of businesses. New regulations could create investor uncertainty and undermine business confidence, threatening the economy. And, while business confidence disadvantages usually feature regulation links, the decision of the government to choose to support certain technologies over others may also undermine business confidence because it sends the signal that the government is no longer supporting a level playing field.

Energy prices. Regulations on energy providers to switch to AE technologies would likely raises costs and energy prices. A substantial increase in energy prices could have a negative impact on the economy because businesses and consumers will be spending a disproportionate amount of money on energy.

Global negotiations. At the Bali conference, the U.S. agreed to begin a process of climate negotiations that would aim to produce a new treaty in 2009. This Bali disadvantage argues that the plan would be a unilateral action that would upstage and undermine an international negotiated solution. Even if you do not present this as a separate off-case disadvantage, you may wish to use the argument as a solvency turn. EU/Japan leadership. These disadvantages argue that if the U.S. undertakes a major initiative to boost its environmental leadership and soft power that these efforts will undermine the ability of the EU and/or Japan to do the same and that leadership by these two is more likely to produce global stability than leadership by the U.S.

Negative Counterplans – Contesting the Incentive

As discussed at the end of the topicality section, I think the focus of the debate will turn on what incentive and non-incentive approaches will best solve the affirmative harms. Are prizes better than subsidies? Are regulations better than prizes? Are cap & trade systems superior to regulations and/or case subsidies?

Negatives have a huge strategic incentive to contest the affirmative's incentive mechanism for two reasons. First, the "most topical" incentives (direct financial payments) are probably the least likely to solve. Negatives that advance "non-incentive" approaches such as cap & trade

systems will probably be able to solve the advantages better than the affirmative plan. Second, given the nature of the 1AC, the affirmative will not have a lot of time in the debate to defend their mechanism, especially to defend it against all possible alternatives that the negative may introduce. The affirmative will likely read an inherency card or two, a number of harms cards, a plan, a solvency contention with two or three cards on how their mechanism will lead to the development of AE and a few cards as to why AE technologies can effectively address the harm. If the negative runs a mechanism counterplan, the only part of the 1AC that the negative needs to challenge is the two to three pieces of evidence that talk about the workability of the incentive mechanism.

If the negative is well-prepared to debate many of the disadvantages that have just been discussed, they can argue those as net-benefits to their counterplan – the counterplan will by less costly for businesses, it will be less politically controversial, cheaper for the government, avoid election year politics, not undermine status quo international negotiations on climate, and may be less coercive. With an incentive alternative counterplan, the negative can focus the debate away from what the affirmative wants to discuss (its advantages) and to what the negative wants to discuss (its generic disadvantages).

Negative Counterplans -- Contesting the Agent

As with all topics, affirmatives will also be required to defend their agent of action against other alternative agents. Most generically, the 50 states will be able to provide nearly all of the incentives that affirmatives will chose to offer, meaning that the affirmative choices will be limited to instances where they can identify the necessity – not just the workability – of federal government action. Similarly, if the EU, China, India, or Japan were to commit to significant emissions reductions, they could at least solve the climate impacts (or at least solve them as well as the affirmative does).

Negative Counterplans – Plan Inclusive Counterplans

Affirmatives that aim for the broad development of "alternative energy" or "renewable energy" resources are likely to be challenged by counterplans that contest the desirability of supporting all of the energy sources identified in the plan. Affirmatives that mandate that a given percentage of utility-generated energy be produced with "renewable energy," for example, may face counterplans that exempt biofuels from the plan mandate. These negative teams will argue "biofuels bad" as the net-benefit to the counterplan.

Negative Kritiks – Three types

This topic will give rise to three basic types of kritiks that apply to this topic. The first type is solvency-based kritiks. This type of kritik will argue that until we solve some underlying problem – capitalism/neo-liberalism, the oppression of women, our bad relationship with nature (deep ecology), or our technocratic approach to dealing with the environment (environmental managerialism) we will not really be able to solve our environmental problems.

A second type of kritik will focus on the problems of the extreme rhetoric of environmental apocalypse that is used to justify the affirmative plan. Negatives that advance these latter kritiks will argue that the focus of the debate should be on the rhetoric that we use to justify our actions rather than on the desirability of the actions themselves.

A third type focuses on the morality of plan action. Negatives will argue that any government intervention into the market place is immoral because it infringes on freedom. This coercion kritik was first run by Wake Forest more than 10 years ago on a similar energy topic and continues to be popular today.

Negative Topicality – Reigning in the Affirmative

This essay is not meant as a broad topicality essay. The focus is on the core topic issues – the affirmative and negative arguments that center on increasing "alternative energy incentives."

As discussed in this essay, there are a couple of important ways to interpret the phrase "alternative energy incentives," and different interpretations drive considerable differences in both affirmative and negative ground. Negatives should work to box affirmatives into more limiting and strategically valuable definitions of incentives – positive cash transfers. If negatives are able to do this, they will not only limit the size of the topic, but also create very solid counterplan ground for themselves.

Negatives should also work on topicality arguments that prevent affirmatives from arguing that alternative energy includes alternative fossil fuel-based energy sources. If the affirmative wins that these are topical AE approaches, they will be able to link turn all of the coal and oil disadvantages that have been discussed.

Affirmative Strategic Choices

In order to build-up a strong affirmative win percentage, affirmatives are going to need to do a number of things: (1) win that their incentive is the optimal incentive; (2) win that their incentive is topical; (3) win that their incentive is best made available by the federal government; (4) win that the incentive will spur AE in a way that solves the advantages; (5) win that the AE technology or technologies that are spurred by the plan is the best way to solve the advantages; (6) win the advantages; (7) win that the affirmative advantages that the plan is able to solve by the end of the debate outweigh the disadvantages; (8) win that the affirmative approach to solving the harm can overcome negative critiques; (9) win that the combination of AE technologies that is supported by the plan is the best available mix.

This is a very tall order for the affirmative, so despite the fact that the topic's advantage ground, particularly climate change advantage ground favors the affirmative, the affirmative will have to work hard to create a case that is able to overcome these hurdles.

Negative Strategic Choices

Again, the strongest ground for the negative is in contesting the affirmative's mechanism. If I were a 2NC and responsible for sailing the negative ship, I would invest considerable energy (pun intended) in doing significant research into various incentives that could be used to develop AE. I would also focus on some of the generic disadvantages that have been discussed, especially politics, energy prices, and business confidence, and federal market intervention because those arguments have the greatest potential to be net-benefits to the counterplan. These counterplans will win debates; strategies that focus on articulating some of the limitations of alternative energy sources probably will not win many debates.

The Strategic Balance

At a broad level, the topic encourages debates on two very interesting and contemporary issues – climate change and the growing price and shortage of fossil fuel-based energy resources. At a very general level, the resolution asks the affirmative to advocate replacing those fossil resources

with alternative energy technologies.

At first glance, this resolution appears to favor the affirmative. The overwhelming preponderance of evidence indicates that the climate is warming, that humans are responsible for the increasing in warming, and that the warming will be catastrophic. Energy prices are increasing dramatically and there is more and more evidence of impending and catastrophic shortages of fossil fuels. There is also excellent evidence that investing in alternative energy technologies will improve them, enabling conventional energy sources to be replaced.

While these arguments do favor the affirmative, it will be tough for the affirmative to win that incentive approaches, particularly positive incentive approaches, are the best way to confront these problems. And, on top of that the affirmative will have to confront the oil disadvantages, disadvantages focused on having the government provide the incentives, and kritiks of their approaches. This combination of negative approaches will make life difficult for the affirmative.

Where Will the Topic Go?
Altering the Strategic Balance

I suspect that initial research and strategizing into the topic will focus on broader energy concerns related to climate and how to confront them. This issue is the intuitive core of the topic, and given past high school and college energy topics, it will be a place that many feel comfortable beginning. Certainly, understanding these issues is important to getting a broader grasp on the topic.

But as the debates begin and negative strategies get better and more focused on the mechanism, affirmatives will, by necessity, focus away from these broader concerns and towards more specific subsidies for particular ends – such as, perhaps, the development of a renewable energy technology that has a specific military application or on the development of cellulose ethanol to replace corn ethanol. These affirmatives will allow the affirmative to focus more generally on a specific/less generic advantage and to defend "more topical" positive subsidies. Broader cap & trade counterplans may not be able to capture the benefits of a targeted incentive for these technologies.

If you are a 2A and reading the essay, I encourage you to start exploring these more specific options sooner rather than later. I think it is where the best affirmative ground will end up. If you are 2N, I encourage you to spend a little time thinking ahead to what your strategy will be against these types of smaller cases, but for now I encourage you to delve into the incentive mechanism and generic disadvantage literature to set yourself up with some winning counterplans.

(Stefan Bauschard is President of PlanetDebate.com, Director of Debate at Lakeland Public Schools and Assistant Debate coach for Harvard Debate.)

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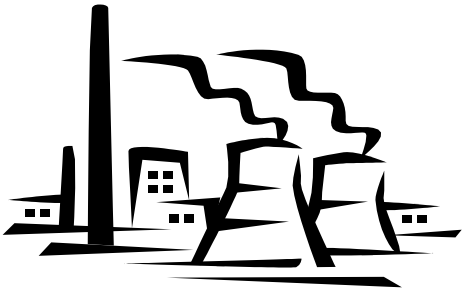

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