

Carbon Tax Affirmative

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Warming 1AC – Contention 1 – Inherency – (1/13)

Contention 1 – Inherency

- A. **Despite growing consensus among experts that a Carbon Tax is the best way to make the switch to alternatives, there is no legislative support for it. Only a carbon tax would enact the changes needed before irreversible damage is done.**

LA Times, 2007

["A WARMING WORLD: Time to tax carbon," May 28, 2007, http://www.latimes.com/news/opinion/la-ed-carbontax28may28_0,2888366.story?coll=la-opinion-leftrail download date: 6-12-08]

There is a growing consensus among economists around the world that a carbon tax is the best way to combat global warming, and there are prominent backers across the political spectrum, from N. Gregory Mankiw, former chairman of the Bush administration's Council on Economic Advisors, and former Federal Reserve Chairman Alan Greenspan to former Vice President Al Gore and Sierra Club head Carl Pope. **Yet the political consensus is going in a very different direction. European leaders are pushing hard for the United States and other countries to join their failed carbon-trading scheme, and there are no fewer than five bills before Congress that would impose a federal cap-and-trade system**. On the other side, **there is just one lonely bill** in the House, from Rep. Pete Stark (D-Fremont), **to impose a carbon tax, and it's not expected to go far**. The obvious reason is that, **for voters, taxes are radioactive**, while carbon trading sounds like something that just affects utilities and big corporations. The many green politicians stumping for cap-and-trade seldom point out that such a system would result in higher and less predictable power bills. Ironically, **even though a carbon tax could cost voters less, cap-and-trade is being sold as the more consumer-friendly approach**. A well-designed, well-monitored carbon-trading scheme could deeply reduce greenhouse gases with less economic damage than pure regulation. But it's not the best way, and it is so complex that it would probably take many years to iron out all the wrinkles. **Voters might well embrace carbon taxes if political leaders were more honest about the comparative costs. The world is under a deadline. Some scientists believe that once atmospheric carbon dioxide levels have doubled from the pre-industrial level**, which may happen by mid-century **if no action is taken, the damage may be irreversible**.

- B. **Congress is not going to extend credits for renewable energy alternatives this year – congress wont renew the plan without a new source of revenue**

Coile, June 18, 2008

[Zachary, "Congressional stalemate over renewable energy," San Francisco Chronicle, <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2008/06/18/MNVE11ALRM.DTL> download date: 6-19-08]

Even as lawmakers of both parties talk about the need to shift the country toward clean, renewable energy, **Congress is in danger of letting key tax credits that have fueled the growth of wind and solar power expire at the end of the year**. **The Senate failed** for the second time in a week Tuesday **to pass a bill to help businesses and homeowners switch to renewable energy. The tax incentives** have strong bipartisan support, but they **have been caught up in a fight between Democrats and Republicans over how to pay for them**. **The stalemate is causing jitters among utilities and investors**, including Bay Area venture capitalists and companies **that are making billion-dollar bets on new technology, solar power plants and manufacturing sites to build solar panels and wind turbines**. Many projects are being put on hold until Congress acts. Arno Harris, CEO of Recurrent Energy in San Francisco, which helps finance and operate large-scale solar power projects, said his company is rushing to finish projects before Dec. 31, when the credits expire. Because large solar projects can take six months to build, the company is delaying new U.S. projects until the credits are renewed. "It creates a hiccup that is very unfortunate," Harris said. **The stalemate is a classic example of how even popular programs can fall victim to gridlock in Washington**. **House Democrats**, seeking to abide by "pay-as-you-go" budget rules, **insist that the tax credits must be paid for by raising revenue elsewhere**. But Senate Republicans have balked at every proposal so far to find that money.

Warming 1AC – Contention 2 – Harms – (2/13)

Contention 2 – Harms

A. Fossil fuels compose 85 percent of U.S. energy usage

Canes, Ph.D in Economics, 2007

[Dr. Canes, Senior Research Fellow, The Logistics Management Institute. He previously was vice president and chief economist of the American Petroleum Institute where he sponsored the early development of the Charles River Associates multi-sector, multi-regional trade model for climate change policy analysis. He's been a member of the faculty at the graduate school of Management at the University of Rochester. He has a Ph.D. in economics from UCLA and a masters of science and economics from the London School of Economics. E&ETV's Event Coverage Vol. 10 No. 9, March 5, "Former API economist Michael Canes says cap and trade costly way to constrain emissions"]

So what are the implications of that, in terms of trying to curb fossil energy use, which is of course what we have in mind when we talk about curbing greenhouse gases? Well, **fossil fuels make up about 85 percent of total U.S. energy use**. And it breaks down, approximately, **oil takes up about 40 percent of our energy use, coal about 23 percent, natural gas about 23 percent. So that's 85, 86 percent, and nuclear accounts for about 8 percent**, and renewables for about 6 percent. **So when we think of we have to curb energy use and we have to curb fossil energy use we are thinking in terms of curbing the vast majority of the energy that we use**. Constraints on fossil use will force substitution of higher costs, less productive inputs, and hence reduce the growth of U.S. GDP. Sort of an implication of what I was saying before, that if you curb the use of one of the efficiently used inputs and use other inputs, which are higher cost or less productive, you are going to have some impact on GDP or the growth of GDP. And the magnitude of these costs will depend, in part, on how the constraints are imposed.

B. Power generation causes CO2 pollution and greenhouse emissions

UK Parliament, 2006

[October 2006 Number 268 <http://www.parliament.uk/documents/upload/postpn268.pdf>. "Carbon footprint of electricity generation" download date: 6-9-08]

All electricity generation technologies generate carbon dioxide (CO2) and other greenhouse gas emissions. To compare the impacts of these different technologies accurately, the total CO2 amounts emitted throughout a system's life must be calculated. **Emissions can be both direct – arising during operation of the power plant, and indirect – arising during other non-operational phases of the life cycle. Fossil fuelled technologies (coal, oil, gas) have the largest carbon footprints, because they burn these fuels during operation**. Non-fossil fuel based technologies such as wind, photovoltaics (solar), hydro, biomass, wave/tidal and nuclear are often referred to as 'low carbon' or 'carbon neutral' because they do not emit CO2 during their operation. However, they are not 'carbon free' forms of generation since CO2 emissions do arise in other phases of their life cycle such as during extraction, construction, maintenance and decommissioning (Fig 1).

Warming 1AC – Contention 2 – Harms – (3/13)

Scenario One – Warming

We are reaching the Point of No Return - cuts in CO2 are needed now

Gelbspan 2005

[People's Ratification Of The Kyoto Global Warming Treaty by Ross Gelbspan February 17, 2005, Grist Magazine
<http://www.zmag.org/content/showarticle.cfm?SectionID=56&ItemID=7266> download date: 5-19-08]

In late January, Rajendra **Pachauri, chair of the Intergovernmental Panel on Climate Change, declared that the world has "already reached the level of dangerous concentrations of carbon dioxide in the atmosphere" and called for immediate and "very deep" cuts in emissions if humanity is to survive. Pachauri's declaration came alongside new findings unveiled on Jan. 24 by a commission of scientists from the U.S., the U.K., and Australia, which declared that the world is about 10 years -- or about 2 degrees Fahrenheit -- away from irreversible climate change. The scientists calculated that the "point of no return" will arrive when concentrations of atmospheric carbon dioxide reach 400 parts per million** (ppm). For most of the 20th century, these carbon concentrations increased by about 1 ppm per year. In recent decades, that rate rose to 1.5. Today it's more than 2 ppm per year. Grand total: 379 ppm, and counting. It's a level of atmospheric carbon this planet has not experienced for 420,000 years.

Warming 1AC – Contention 2 – Harms – (4/13)

C. Failure to act now means that Global Warming will continue. This will cause a massive release of oceanic methane, and a rapid warming. The end result would be the end of life on Earth.

Edwards and Cromwell 2005

["Silence Is Green The Green Movement And The Corporate Mass Media by David Edwards and David Cromwell, February 9, <http://www.zmag.org/content/showarticle.cfm?SectionID=21&ItemID=7208> download date: 5-19-08]

Humanity has chosen to floor the consumer accelerator just as warnings of imminent catastrophe are piling up. Consider the impact, for example, of "global dimming" - the phenomenon by which tiny airborne particles of soot and other pollutants reflect sunlight back into space. The cooling effect of dimming, it seems, has offset the impact of global warming caused by industrial emissions of greenhouse gases. But with atmospheric particulate pollution being brought under control, this man-made break on climate change is being released. Scientists now believe temperatures could rise twice as fast as previously thought, with catastrophic and irreversible damage just twenty-five years away. ('Global Dimming', Horizon, BBC2, repeat broadcast, January 15, 2005;

http://www.bbc.co.uk/sn/tvradio/programmes/horizon/dimming_trans.shtml) As the world heats up, reservoirs of frozen methane at the bottom of the ocean could melt, with consequences that would be terminal for human life: "At this point, whatever we did to curb our emissions, it would be too late. Ten thousand billion tons of methane... would be released into the atmosphere. The Earth's climate would be spinning out of control, heading towards temperatures unseen in four billion years. But this is not a prediction - it is a warning. It is what will happen if we clean up pollution while doing nothing about greenhouse gases. However, the easy solution - just keep on polluting and hope that Global Dimming will protect us - would be suicidal." (Horizon, ibid)

D. Climactic oscillations kills billions

Milbrath, Former Director, Environmental Studies Center , '94

[Lester W., Professor emeritus of political science and sociology @ SUNY-Buffalo, The Futurist, May, Lexis]

Another scenario suggests that there could be an extended period, perhaps a decade or two, when there is oscillation-type chaos in the climate system. Plants will be especially vulnerable to oscillating chaos, since they are injured or die when climate is too hot or too cold, too dry or too wet. And since plants make food for all other creatures, plant dieback would lead to severe declines in agricultural production. Farm animals and wildlife would die in large numbers. Many humans also would starve. Several years of climatic oscillation could kill billions of people.

E. Warming will make the earth inhospitable

Lean 2005

[Geoffrey, 2/6/2005, The Independent on Sunday, Pg. 10,11, SPECIAL REPORT: GLOBAL WARMING: APOCALYPSE NOW: HOW MANKIND IS SLEEPWALKING TO THE END OF THE EARTH; FLOODS, STORMS AND DROUGHTS. MELTING ARCTIC ICE, SHRINKING GLACIERS, Lexis/Nexis]

What could happen? Global warming escalates to the point where the world's whole climate abruptly switches, turning it permanently into a much hotter and less hospitable planet. How would this come about?

A process involving "positive feedback" causes the warming to fuel itself, until it reaches a point that finally tips the climate pattern over. How likely is it? Abrupt flips have happened in the prehistoric past. Scientists believe this is unlikely, at least in the foreseeable future, but increasingly they are refusing to rule it out.

Warming 1AC – Contention 2 – Harms – (5/13)

Scenario 2 – Ocean Life

- A. Greenhouse gasses are causing the ocean to be highly acidic – the quickening pace of this transformation is shocking scientists worldwide. Without swift action to stop CO2 emissions all life in the ocean is at risk.

Munro, May 23, 2008

[Vancouver Sun, "Acidified ocean water threatens marine life from Mexico to Vancouver Island"
<http://www.canada.com/vancouver/news/story.html?id=d19e7963-7d57-47fa-b582-f948dd4e2419> download date: 6-7-08]

Greenhouse gases have so profoundly altered the world's oceans that scientists say "**corrosive" acidified water is now surfacing off the west coast** of North America. The water, **capable of dissolving the shells of marine organisms, is rising up from the deep ocean** along the coast from Vancouver Island to Mexico, an international team reported Thursday in the journal Science. The corrosive water has shown up decades earlier than expected, say the researchers who warn of far-reaching impacts on the marine ecosystem. Not only does it threaten such sensitive shelled creatures as **free-swimming snails**, but also the animals that feed on them. "They're a staple for salmon," says study co-author Debby Ianson, of Fisheries and Oceans Canada, referring to pteropods, the tiny snails known as sea butterflies. They **have difficulty maintaining their shells in acidified water**. "They can't make it [shell] as fast as it dissolves," she says. The study is the first to show **that a large section of North America's western continental shelf, critical habitat** for crab, clams, salmon and many other species, **is bathed in acidified waters during the summer months**. "This means that ocean acidification may be seriously impacting marine life on our continental shelf right now," says team leader Richard Feely, of the U.S. National Oceanic and Atmospheric Administration in Seattle. Scientists have long warned **the oceans** are growing more acidic. This is because they **act like a sponge, soaking up vast amounts of carbon dioxide from the atmosphere, which dissolves and forms an acid in the seawater** -- CO2 is one of the leading greenhouse gases associated with global warming. It is estimated **the oceans have absorbed about a third of the CO2 humans have pumped into the atmosphere through the burning of fossil fuels**. This process is "significantly reducing the greenhouse gas levels in the atmosphere and minimizing some of the impacts of global warming," Feely and his colleagues say in their Science report. "However, **the ocean's daily uptake of 30 million metric tonnes of carbon dioxide is significantly impacting its chemistry and biology**," the team says. The oceans have become more acidified since beginning of the industrial revolution, and researchers say **the acidification is increasing as humans pump increasing amounts of CO2 into the atmosphere**. Climate change models and studies have forecast that ocean water would become "corrosive" to organisms between 2050 and 2100 and previous studies have found acidification at deeper depths farther from shore. The new evidence indicates the climate modellers underestimated the threat to coastal waters. "They weren't thinking about the coast," says Ianson, explaining how acidified, corrosive water from depths of more than 200 metres is drawn up and onto the continental shelf by the strong spring and summer winds. "What we're seeing is that the water is already getting to the surface," she says. She and her colleagues from the U.S. and Mexico spent six weeks at sea last summer, collecting close to 2,600 bottles of water along 13 survey lines from Queen Charlotte Sound, north of Vancouver Island, to northern Mexico. They found acidified corrosive seawater at depths of 40 to 120 metres in most areas and tracked it to all the way to the surface, within seven kilometres of the northern California coast. Off Vancouver Island, it was seen at a depth of 80 metres, says Ianson. While the researchers describe the water as "corrosive" Ianson says it poses no danger of bathers. "It's not that children swimming at the beach will get their feet blistered," she says. But the scientists say **ocean acidification poses potentially catastrophic risks to marine ecosystems**. Laboratory experiments have shown the delicate shells of pteropods become pitted when they are placed in water with the acidify levels spotted off the coast. And **many species of fish and shellfish of economic importance, including salmon, oysters and clams, are sensitive to acidified waters**. They scientists say little is known about the impact of intermittent, seasonal exposure to corrosive water that is now occurring off the coast. But they say there is an urgent need to find out how the water is affecting larval, juvenile and adult stages of both shelled organisms the creatures that feed on them. "**What is scary** about ocean acidification on the whole **is how fast it is happening**," says Ianson.

Warming 1AC – Contention 2 – Harms – (6/13)

B. Oceans are key to existence of life on the planet – failure to protect them leads to extinction

U.S. National Oceanic and Atmospheric Administration 98

[NOAA Year of the Ocean Report, 1998, PERSPECTIVES ON MARINE ENVIRONMENTAL QUALITY TODAY,
http://www.yoto98.noaa.gov/yoto/meeting/mar_env_316.html (BLUEOC 0056), download date: 6-8-08]

The ocean plays a critical role in sustaining the life of this planet. Every activity, whether natural or anthropogenic, has far reaching impacts on the world at large. For example, **excessive emissions of greenhouse gases may contribute to an increase the sea level, and cause potential flooding or an increase in storm frequency;** this flooding can reduce wetland acreage and increase sediment and nutrient flows into the Gulf of Mexico, causing adverse impacts on water quality and reducing habitat for commercial fisheries. This in turn drives up the cost of fish at local markets nationwide. **The environment and the economic health of marine and coastal waters are linked at the individual, community, state, regional, national and international levels.** The interdependence of the economy and the environment are widely recognized. The United States has moved beyond viewing health, safety, and pollution control as additional costs of doing business to an understanding of broader stewardship, recognizing that economic and social prosperity would be useless if the coastal and marine environments are compromised or destroyed in the process of development (President's Council on Sustainable Development, 1996). Much about the ocean, its processes, and the interrelationship between land and sea is unknown. Many harvested marine resources depend upon a healthy marine environment to exist. Continued research is needed so that sound management decisions can be made when conflicts among users of ocean resources arise. Although much progress has been made over the past 30 years to enhance marine environmental quality and ocean resources, much work remains. The challenge is to maintain and continue to improve marine water quality as more people move to the coasts and the pressures of urbanization increase. Through education, partnerships, technological advances, research, and personal responsibility, marine environmental quality should continue to improve, sustaining resources for generations to come. **"It does not matter where on Earth you live, everyone is utterly dependent on the existence of that lovely, living saltwater soup. There's plenty of water in the universe without life, but nowhere is there life without water. The living ocean drives planetary chemistry, governs climate and weather, and otherwise provides the cornerstone of the life-support system for all creatures on our planet, from deep-sea starfish to desert sagebrush. That's why the ocean matters. If the sea is sick, we'll feel it. If it dies, we die. Our future and the state of the oceans are one."**

Warming 1AC – Contention 2 – Harms – (7/13)

Scenario 3 – Pollution

A. Electricity generation is the number one cause of pollution in the US

Environmental Defense Fund, 2002

[http://www.edf.org/documents/1041_FactSheet_Electricity.pdf, retrieved June 18, 2008]

The generation of electric power produces more pollution than any other single industry in the United States. The energy sources most commonly used for electricity production – fossil fuels such as coal, oil and natural gas – are known as non-renewable resources. They take millions of years to be formed in the crust of the earth by natural processes. Once burned to produce electricity, they are gone forever. Burning fossil fuels such as coal or oil creates unwelcome by-products that pollute when released into our environment, changing the planet’s climate and harming ecosystems.

B. Pollution kills millions, if continued unchecked it will kill billions

Roberts, 2002

[Earth Policy Institute, September 17, 2002, (<http://www.earth-policy.org/Updates/Update17.htm> download date: 6-9-08)]

The World Health Organization reports that 3 million people now die each year from the effects of air pollution. This is three times the 1 million who die each year in automobile accidents. A study published in The Lancet in 2000 concluded that air pollution in France, Austria, and Switzerland is responsible for more than 40,000 deaths annually in those three countries. About half of these deaths can be traced to air pollution from vehicle emissions. **In the United States**, traffic fatalities total just over 40,000 per year, while **air pollution claims 70,000 lives annually. U.S. air pollution deaths are equal to deaths from breast cancer and prostate cancer combined. This scourge of cities in industrial and developing countries alike threatens the health of billions of people.**

Warming 1AC – The Plan – (8/13)

The Plan

Resolved: that the United States Federal Government should establish a carbon tax on all industrial emissions of carbon at fifty dollars per ton of carbon emissions and fifty cents per gallon on all liquid fossil fuels, which should double every ten years until 2050. All revenue from the tax should be used to subsidize the research, development, and construction of alternative energy sources.

Warming 1AC – Contention 3 – Solvency – (9/13)

Contention 3 – Solvency

- A. **Carbon tax is the best policy option – provides effective and efficient cuts, leads to more innovation, avoids corruption, eliminates burdensome federal regulations, stabilizes prices, is adjustable and predictable, has methods in place now to collect the tax, keeps the money in the United States for investment and innovation, and mitigates the economic damages of halting fossil fuel use.**

Green, Hayward, and Hassett, 2007

Kenneth P. Green, Steven F. Hayward, Kevin A. Hassett, F. K. Weyerhaeuser Fellow, resident scholar, and senior fellow and director of economic policy studies at AEI, "Climate Change: Caps vs. Taxes," http://www.aei.org/publications/filter.all.pubID.26286/pub_detail.asp, June 1, ENVIRONMENTAL POLICY OUTLOOK, AEI Online, No. 2

There are many reasons for preferring a revenue-neutral carbon tax regime (in which taxes are placed on the carbon emissions of fuel use, with revenues used to reduce other taxes) to emissions trading. Among them are: **Effectiveness and Efficiency**. A revenue-neutral carbon tax shift is almost certain to reduce GHG emissions efficiently. As economist William Pizer observes, "Specifically, **a carbon tax equal to the damage per ton of CO2 will lead to exactly the right balance between the cost of reducing emissions and the resulting benefits of less global warming**." [10] Despite the popular assumption that a cap-and-trade regime is more certain because it is a quantity control rather than a price control, such a scheme only works in very limited circumstances that do not apply to GHG control. The great potential for fraud attendant on such a system creates significant doubt about its effectiveness, as experience has shown in both theory and practice in the gyrations of the European ETS. The likelihood of effectiveness also cannot be said for regulations such as increased vehicle fuel economy standards. In fact, such regulations can have perverse effects that actually lead to increased emissions. By making vehicles more efficient, one reduces the cost of a unit of fuel, which would actually stimulate more driving, and, combined with increasing traffic congestion, could lead to an increase in GHG emissions rather than a decrease. As Harvard researchers Louis Kaplow and Steven Shavell point out, "**The traditional view of economists has been that corrective taxes are superior to direct regulation of harmful externalities when the state's information about control costs is incomplete**," which, in the case of carbon emissions reductions, it most definitely is. [11] And when it comes to quantity controls (as a cap-and-trade system would impose), Pizer found that My own analysis of the two approaches [carbon taxes vs. emission trading] indicates that **price-based greenhouse gas (GHG) controls are much more desirable than quantity targets**, taking into account both the potential long-term damages of climate change, and the costs of GHG control. This can be argued on the basis of both theory and numerical simulations. Pizer found, in fact, that **a carbon-pricing mechanism would produce expected net gains five times higher than even the best-designed quantity control (i.e., cap-and-trade) regime**. [12]

Incentive Creation. Putting a price on the carbon emissions attendant on fuel use would create numerous incentives to reduce the use of carbon-intensive energy. **The increased costs of energy would flow through the economy, ultimately giving consumers incentives to reduce their use of electricity, transportation fuels, home heating oil**, and so forth. Consumers, motivated by the tax, would have incentives to buy more efficient appliances, to buy and drive more efficient cars, and to better insulate their homes or construct them with more attention to energy conservation. **A carbon tax would also create incentives for consumers to demand lower-carbon power sources** from their local utilities. A carbon tax, as its cost flowed down the chains of production into consumer products, would lead manufacturers to become more efficient and consumers to economize in consumption. At all levels in the economy, a carbon tax would create a profit niche for environmental entrepreneurs to find ways to deliver lower-carbon energy at competitive prices. Finally, **a carbon tax would also serve to level (somewhat) the playing field among solar power, wind power, nuclear power, and carbon-based fuels** by internalizing the cost of carbon emission into the price of the various forms of energy. **Less Corruption**. Unlike carbon cap-and-trade initiatives, **a carbon tax would create little incentive or opportunity for rent-seeking or cheating**. As William Nordhaus explains: A price approach gives less room for corruption because it does not create artificial scarcities, monopolies, or rents. There are no permits transferred to countries or leaders of countries, so they cannot be sold abroad for wine or guns. . . . In fact, a carbon tax would add absolutely nothing to the instruments that countries have today. [13] Without the profit potential of amassing tradable carbon permits, industry groups would have less incentive to try to get credits for their favored but non-competitive energy sources. That is not to say that tax-based approaches are immune from corruption, for they certainly are not. If set too far down the chain of production or set unevenly among energy sources, carbon taxes could well lead to rent-seeking, political favoritism, economic distortions, and so on. Foreign governments might have an incentive to undermine a trading scheme by offering incentives to allow their manufacturers to avoid the cost of carbon trading. A tax on fuels proportionate to their carbon content, levied at the point of first sale, should be less susceptible to corruption, and by delivering revenue to the government rather than to private entities, should create incentives more aligned with the government's objective. **Elimination of Superfluous Regulations**. **Because a carbon tax would cause carbon emissions to be reduced efficiently across the entire market, other measures that are less efficient--and sometimes even perverse in their impacts--could be eliminated**. With the proper federal carbon tax in place, there would be no need for corporate average fuel economy standards, for example. California's emissions-trading scheme, likewise, would be superfluous, and its retention only harmful to the Golden State. As regulations impose significant costs and distort markets, **the potential to displace a fairly broad swath of environmental regulations with a carbon tax offers benefits beyond GHG reductions**. **Price-Stabilization**. As the experiences of the European ETS and California's RECLAIM show us, pollution-trading schemes can be easily gamed, resulting in significant price volatility for permits. Imagine one's energy bill jumping around as permits become more or less available due to small changes

CONTINUED on next page →

Warming 1AC – Contention 3 – Solvency – (10/13)

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in economic conditions. A carbon tax would be predictable, and by raising the overall price of energy to include the tax, the portion of energy cost per unit that stems from fluctuation in market rates for fossil fuels shrinks as a percentage of the whole. That shrinkage makes the price of a given form of energy less susceptible to volatility every time there is a movement in the underlying production costs. Adjustability and Certainty. A carbon tax, if found to be too stringent, could be relaxed relatively easily over a timeframe, allowing for markets to react with certainty. If found too low to produce results, a carbon tax could easily be increased. In either event, such changes could be phased in over time, creating predictability and allowing an ongoing reassessment of effectiveness via observations about changes in the consumption of various forms of energy. A cap-and-trade system, by contrast, is more difficult to adjust because permits, whether one is the seller or the buyer, reflect significant monetary value. Permit traders would demand--and rightly so--compensation if what they purchased in good faith has been devalued by a governmental deflation of the new "carbon currency." In addition, sudden changes in economic conditions could lead to significant price volatility in a cap-and-trade program that would be less likely under a carbon-tax regime. Preexisting Collection Mechanisms. Whether at local, state, or federal levels, carbon taxes could be levied and collected through existing institutions with extensive experience in enforcing compliance, and through ready-made statutes to back up their actions. The same cannot be said for emissions-trading schemes that require the creation of new trading markets, complete with new regulations and institutions to define and enforce the value of credits. Keeping Revenue In-Country. Unlike an international cap-and-trade regime, carbon taxes--whether done domestically or as an internationally agreed-upon value--have the advantage of keeping tax payments within individual countries. This could strongly reduce the opposition to international action that has, until this point, had a strong implication of wealth redistribution overlaid on the policy discussion. This dynamic leads to a second reason why a carbon tax is a better fit for U.S. climate policy: it offers an international analogue to our federalist approach to public policy innovation within the United States. As we have seen, there is reason to doubt the long-run effectiveness and sustainability of the EU's emissions-trading program. If the United States adopts a carbon tax approach, we will be able to compare the effectiveness of tax versus emissions trading in short order.

B. Carbon tax is the best way to reduce greenhouse gasses and promote alternative energy – solves 11% of greenhouse gasses for every 15\$ of carbon tax established.

Green, Hayward, and Hassett, 2007

[Kenneth P. Green, Steven F. Hayward, Kevin A. Hassett, F. K. Weyerhaeuser Fellow, resident scholar, and senior fellow and director of economic policy studies at AEI, "Climate Change: Caps vs. Taxes," http://www.aei.org/publications/filter.all,pubID.26286/pub_detail.asp, June 1, ENVIRONMENTAL POLICY OUTLOOK, AEI Online, No. 2]

A program of carbon-centered tax reform, by contrast, lacks most of the negative attributes of cap-and-trade, and could convey significant benefits unrelated to GHG reductions or avoidance of potential climate harms, making this a no-regrets policy. A tax swap would create economy-wide incentives for energy efficiency and lower-carbon energy, and by raising the price of energy would also reduce energy use. At the same time, revenues generated would allow the mitigation of the economic impact of higher energy prices, both on the general economy and on the lower-income earners who might be disproportionately affected by such a change. Carbon taxes would be more difficult to avoid, and existing institutions quite adept at tax collection could step up immediately. Revenues would remain in-country, removing international incentives for cheating or insincere participation in carbon-reduction programs. Most of these effects would remain beneficial even if science should determine that reducing GHG emissions has only a negligible effect on mitigating global warming. A modest carbon tax of \$15 per ton of CO2 emitted would result in an 11 percent decline in CO2 emissions, while raising non-coal-based energy forms modestly. Coal-based energy prices would be affected more strongly, which is to be expected in any plan genuinely intended to reduce GHG emissions. A number of possible mechanisms are available to refund the revenues raised by this tax. On net, these tools could significantly reduce the economic costs of the tax and quite possibly provide economic benefits. For these reasons, we conclude that if aggressive actions are to be taken to control GHG emissions, carbon-centered tax reform--not GHG emission trading--is the superior policy option.

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C. Carbon tax would best encourage the switch to renewables

Shapiro 2007

[Robert J., "Addressing the Risks of Climate Change: The Environmental Effectiveness and Economic Efficiency of Emissions Caps and Tradable Permits, Compared to Carbon Taxes," former U.S. Undersecretary of Commerce for Economic Affairs during the Clinton Administration, February, <http://www.aci-citizenresearch.org/Shapiro.pdf>]

Carbon taxes also should provide greater incentives for companies to develop new, environmentally-friendly technologies or abatement strategies than a cap-and-trade program. The tax would provide "a continual incentive to reduce the costs of carbon abatement,"⁶⁶ as a leading energy economist put it, because **the permanent increase in the cost of carbon-intensive energy would raise the rate of return on the development and use of technologies that reduce the consumption of those forms of energy.** Cap-and-trade provides less powerful incentives in this respect, because its impact on energy prices is less constant and more volatile. And under flawed versions of the cap-and-trade strategy, such as Kyoto-based targets, the availability of excess permits further weakens the incentives to develop and use alternative fuels and more energy-efficient technologies.

D. Carbon tax solves for pollution at every point of the cycle

Kriz 2007

[Margaret, "Dingell's Dare," the National Journal, October 20, download date" 6-90-08]

But carbon-tax supporters say that Dingell is only stating the obvious: **A tax may be necessary to curb global warming.** "I think there is a growing understanding of how bad cap-and-trade is," AEI's Green said. "And if that sentiment continues to grow, more people will say, 'Look, we need to bring a positive alternative to the table.' And **what they're left with is going to be a carbon tax.**" Industry associations say that their members are split on how to address global warming. A lobbyist with one group estimated that about 40 percent of his members favor a cap-and-trade plan and the rest are evenly divided between supporting a carbon tax and opposing all controls on greenhouse gases. But cap-and-trade proponents might jump ship, he said, if Congress were to write a bill that they believed disadvantaged their companies. **"If I were going to handicap the race, I would say, long term there is a better chance for a carbon tax because they can make it apply to everything, including products coming into the country."** he said. "Industry's biggest concern is, 'Is this going to be fair?' A carbon tax is perceived as being fair."

E. Carbon tax should be implemented on the federal level – it's the only way to fairly spread the cost of the plan around

Einholf 2007

[David M., formerly a managing partner in Energy Resources Management, Daily Journal of Commerce (Portland, OR), "Carbon and the Pacific Northwest, effective emissions control," November 13]

On the other hand is **the carbon tax**, which **would place a charge on the carbon emissions** generated by any fossil fuel (e.g. coal, natural gas, oil products). Carbon taxes are favored by utilities with a majority of renewable, natural gas, or nuclear resources in their portfolios. Many conservative economists have also embraced the carbon tax as a potential replacement for some personal and corporate income taxes. Economists estimate that **a tax of \$10 per metric ton of carbon dioxide emissions** (the common measure) **could yield more than \$50 billion per year to the treasury, assuming some reductions from a 2005 baseline.** As with cap and trade, a carbon tax has its pros and cons. As an economic policy, a carbon tax would be simple to implement at the national level. It would largely affect utilities and oil producers, who would simply pass it through to their customers. Estimates of the effect of a \$10 per Megaton carbon dioxide tax are an increase of \$0.024 cents per gallon of gas and \$0.0017 per kilowatt-hour of electricity, less than a 2 percent increase. As a tax, however, it would affect the poor and small business disproportionately, as they pay a greater part of their income for oil and electricity. Lastly, **a carbon tax is only truly effective if it is instituted as a national policy. Carbon taxes at the local level would be difficult to enforce** (especially since **power is not entirely locally generated**) and would result in business moving out of the state or region. Meeting the aggressive requirements of Oregon's greenhouse gas reduction program will be difficult for Oregon's utilities and large businesses using fossil fuels, regardless of which system is adopted to promote reductions. **A national policy leading to a carbon tax would spread the cost more widely to consumers.**

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F. Federal oversight ensures adequate communication between aspects of the electric grid which is vital for reliability

Makovich 2003

[CERA Senior Director for Americas Gas and Power Research, Lawrence J., "Contributing events and causes of the blackout," Federal News Service, September 4]

Transmission organizations need to reflect the underlying reality of the transmission infrastructure. **We do not have a seamless, national transmission grid** and are not even close to having one. Instead, **the US power system consists of a dozen regional transmission networks within three largely independent transmission interconnections**, with varying levels of power transfer capability between regional networks and with networks in Canada. **These networks cover multistate areas and need organizations that align with the physical extent of the grids to implement the necessary planning, coordination, communication, and control.** Thus, the Federal Energy Regulatory Commission (FERC) should not allow movement to the market in regions that do not have proper alignment between the transmission organization and the network. Currently, the US Midwest network has two transmission organizations in formation and transition, rather than one, and suffers a misalignment between the organizations and the underlying extent of the regional network. On the other hand, if the FERC gains authority to order regional transmission organization participation in regions moving to the market, then it should also order proper alignment between transmission organizations and networks. Since these regional networks do have significant interconnections, **the need also exists for an umbrella organization to coordinate operations and interdependencies within the interconnections**. We want sufficient overall control to avoid situations in which one regional network protects itself by causing collapses in neighboring networks. The current NERC comes close to the envisioned umbrella organization but suffers from being a voluntary organization with limited enforcement authority. Mandatory electric reliability standards and procedures would help address the breakdown in planning, coordination, and communication that are at the foundation of power system control. **A system of rules and procedures is needed that provides real-time information flows such that all system operators have a clear view of not just their local power system but also the larger whole.** Such standards and procedures need to be enforced by an agency with authority over both publicly and privately owned transmission assets in competitive as well as regulated industry structures. International agreements are also necessary to coordinate with Canadian power systems and, to a much smaller extent, Mexican power systems. **An umbrella organization must ensure that contingency planning evaluates the power system as a whole-and is not just an uncoordinated set of regional contingency plans with a blind spot regarding their interdependencies.**

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- G. Carbon tax is modelled globally, and if the money is invested in renewables and alternatives, the US can trade those technologies to countries to help them reduce their emissions**

Shapiro 2007

[Robert J., "Addressing the Risks of Climate Change: The Environmental Effectiveness and Economic Efficiency of Emissions Caps and Tradable Permits, Compared to Carbon Taxes," former U.S. Undersecretary of Commerce for Economic Affairs during the Clinton Administration, February, <http://www.aci-citizenresearch.org/Shapiro.pdf>]

The risks of climate change continue to grow. **Global, harmonized net carbon taxes could contain those risks in an economically-efficient and politically-feasible way. The task is to persuade the world's major energy producing and energy consuming countries to adopt them. The United States has a singular role to play in this regard. As the world's largest producer of greenhouse gases, the United States has a special responsibility to implement an effective and efficient strategy for reducing those emissions.** Moreover, **as the leading developer of new technologies, the United States can use its technological capacity to develop alternative fuels and more energy-efficient and carbon-reducing technologies.** A carbon tax would both directly reduce greenhouse gas emissions and provide powerful incentives for technological progress in this area. It offers best way forward in the national and global debate over climate change.

- H. Tax would integrate into the world cap-and-trade system easily**

Orszag, Director, Congressional Budget Office, 2008

[Peter R., Director of the Congressional Budget Office, The Congress of the United States, Before joining CBO in January 2007, Dr. Orszag was the Joseph A. Pechman Senior Fellow and Deputy Director of Economic Studies at the Brookings Institution, Ph.D. in Economics from the London School of Economics, February 2008, "Policy Options for Reducing CO2 Emissions," CBO Study No. 2930]

A tax on emissions would be the most efficient incentive-based option for reducing emissions and could be **relatively easy to implement.** If it was coordinated among major emitting countries, **it would help minimize the cost of achieving a global target for emissions by providing consistent incentives for reducing emissions around the world.** If other major nations used cap-and-trade programs rather than taxes on emissions, **a U.S. tax could still provide roughly comparable incentives for emission reductions if the tax rate each year was set to equal the expected price of allowances under those programs.** (See Summary Table1 for a qualitative comparison of selected policies.)

Inherency

Congress won't implement a carbon tax – election and they prefer cap and trade

Kriz 2007

[Margaret, "Dingell's Dare," the National Journal, October 20]

In late September, House Energy and Commerce Committee Chairman John Dingell floated a proposal to cut U.S. emissions of global-warming pollution by imposing a carbon tax -- a levy on gasoline and on the carbon released by coal-fired electrical plants and other industrial facilities. Carbon is produced in the form of carbon dioxide when fossil fuels are burned.

On Capitol Hill, the Michigan Democrat's proposal hit a raw nerve. Leaders of his party fear that the mere specter of a new tax could alienate voters in the 2008 elections. "I'm catching more than a little hell for this," Dingell told National Journal.

"I knew that was going to happen when I first began talking about the subject. Most people are just saying, 'Dingell, please go away.' " Democratic leaders prefer a cap-and-trade system modeled after the successful effort for reducing pollution linked to acid rain. Under this approach to curbing climate change, the federal government would set a national limit on all U.S. emissions of carbon dioxide and other pollutants that contribute to global warming. Companies that produce greenhouse gases would have to obtain one "credit" for every ton of such emissions. Policy makers are hotly debating whether those credits should be given free to polluting companies or whether the credits should be distributed through an auction. Companies that can cut their emissions would be able to trade -- meaning, sell -- credits to others. And the federal government would gradually ratchet the national cap down to reduce emissions by as much as 80 percent.

Inherency

Senate has blocked legislation to provide renewable energy tax credits

Reuters, June 17, 2008

["Senate blocks debate of clean energy tax credits," <http://www.reuters.com/article/politicsNews/idUSN1730263720080617> download date: 6-19-08]

The U.S. Senate on Tuesday blocked debate of a bill to offer about \$17.7 billion in tax incentives for consumers to build renewable energy sources like windmills and solar arrays, and buy plug-in cars that run on electricity rather than gasoline. The Energy Independence and Tax Relief Act of 2008 would have extended a tax credit to build windmills by one year through December 31, 2009, and extend for three years similar credits for renewable energy sources like biomass, geothermal, landfill gas and trash combustion. **The bill failed to garner enough votes to limit debate and move to a vote, leaving the fate of the clean-energy credits uncertain.** Extension of renewable energy credits was the most expensive portion of the bill, at about \$7 billion over 10 years. **The bill also offered incentives for demonstrating ways to capture heat-trapping carbon dioxide emissions from coal-fired electric plants, and offered at least \$3,000 in tax incentives for consumers to buy plug-in electric vehicles.**

Inherency

Senate failure to pass renewables legislation means new bills wont get passed until after the election

Gutierrez, June 17

http://www.forbes.com/markets/2008/06/17/solar-wind-energy-markets-equity-cx_cg_0617markets48.html "Washington Fails Renewable Energy, Again," Carl Gutierrez, *Forbes*

Solar and wind energy stocks slipped in afternoon trading in New York after **the U.S. Senate once again failed to pass tax breaks for the industry**. For the second time in a week, **a Republican filibuster prevented the Senate from taking up a tax bill that includes \$17 billion worth of extensions of tax credits to help the private sector develop renewable energy sources**. (See: "Congress Tries Again To Extend Solar Tax Credits") "There is no serious opposition among the Republicans to the Democratic sponsored tax credits," said Raymond James analyst Pavel Molchanov. **"The problem is the bill includes some unrelated provisions that Republicans do have a problem with."** **The Democrats** find themselves in a tight spot. On one hand they **want the renewable energy tax credits to get passed; on the other hand, they're trying to adhere to the principle of "pay-as-you-go"**, which means ensuring that there is funding for any new spending. In this case they would like to rescind certain tax provisions for oil and gas companies, close the so-called hedge fund loophole under which the investment vehicles can defer certain overseas profits and delay a tax break for multinationals. Republican opponents of the bill contend that the Democrats are trying to put in place permanent tax hikes to fund what are only short-term tax breaks. **"The Republicans have been playing hardball and the Democrats have made tactical errors** in refusing to separate the uncontroversial parts to the tax increases," Molchanov said. Molchanov expects the Democrats will cave and take out the "pay-as-you-go" provisions," recognizing they don't have the votes. **The presidential election complicates things**, though. **"The political conventions are in about two months and then Washington shuts down until the November elections,"** Molchanov said. "It can be done in the lame-duck Congress, but for the solar industry it would be unhelpful to have that cloud hanging over the market."

Inherency

Current state policies are patchwork and need a federal program to unify and streamline the transition to renewables

Herzog et. al., 2001

[Antonia V. Herzog, Timothy E. Lipman, Jennifer L. Edwards, and Daniel M. Kammen, *Environment*, Vol. 43 No. 10 (December 2001), RENEWABLE ENERGY: A VIABLE CHOICE, http://www.nrel.gov/analysis/seminar/pdfs/2004/ea_seminar_sept_20_2.pdf]

Analysis of the RPS target for 2020 shows renewable energy development in every region of the country, with most coming from wind, biomass, and geothermal sources. In particular, the Plains, Western, and mid-Atlantic states would generate more than 20 percent of their electricity from renewables. **Texas has become a leader in developing and implementing a successful RPS** that then-Governor Bush signed into law in 1999. The Texas law requires electricity companies to supply 2,000 MW of new renewable resources by 2009, and the state is actually expected to meet this goal by the end of 2002, seven years ahead of schedule. **Nine other states have signed an RPS into law:** Arizona, Connecticut, Maine, Massachusetts, Nevada, New Jersey, New Mexico, Pennsylvania, and Wisconsin. Minnesota and Iowa have a minimum renewables requirement similar to an RPS, and legislation that includes an RPS is pending in several other states. While the participation of 12 states signals a good start, **this patchwork of state policies would not be able to drive down the costs of renewable energy technologies and move these technologies fully into the marketplace.** Also, state **RPS policies have differed substantially** from each other thus far. **These differences could cause significant market inefficiencies, negating the cost savings that a more comprehensive, streamlined, market-based federal RPS package would provide**

CTX Solves Best

Carbon tax has a five to eight times greater chance of succeeding than the status quo cap-and-trade system

Orszag, Director, Congressional Budget Office, 2008

[Peter R, Director of the Congressional Budget Office, Ph.D. in Economics, London School of Economics, February, "Policy Options for Reducing CO2 Emissions," CBO Study No. 2930]

When analysts take into account the degree to which costs are likely to vary around a single best estimate, they conclude that **a tax could offer much higher net benefits than a cap.** One study suggests that **the net benefits of a worldwide tax on CO2 emissions in 2010 would be more than eight times larger than those of an equivalent inflexible cap.** If the policies are assumed to be set in place for 100 years, the efficiency advantage of a tax declines to a factor of five.⁹ Another study concluded that **a tax could offer up to 16 times greater expected net benefits than a cap under some assumptions.**¹⁰ A third study examined outcomes when cost shocks were assumed to be correlated across time—that is, an unusually high cost of meeting the cap in any given year increases the likelihood of a higher than average cost in the following year. **Using their base-case parameter estimates for factors that might affect costs** (such as baseline emissions and changes in technology) and assuming a 10-year policy, those **researchers estimated that the net benefits of a tax would be roughly five times higher than those of a cap.**¹¹ Taken together, those studies suggest that the net benefits of a tax could be roughly five times those of an inflexible cap (see Figure 1-2)—assuming that both policies were designed to balance expected costs and benefits. Viewed another way, **any long-term emission-reduction target could be met by a tax at a fraction of the cost of an inflexible cap-and-trade program.** That cost savings stems from the fact that **a tax could better accommodate cost fluctuations while simultaneously achieving a long-term emission target. It would provide firms with an incentive to undertake more emission reductions when the cost of doing so was relatively low** and allow them to reduce emissions less when the cost of doing so was particularly high.

CTX Solves Best

Carbon Tax encourages switches to alternatives and cuts in all the best places – achieves the quickest, most efficient reduction of greenhouse gases and pollution

Shapiro, 2007

[Robert J., "Addressing the Risks of Climate Change: The Environmental Effectiveness and Economic Efficiency of Emissions Caps and Tradable Permits, Compared to Carbon Taxes," former U.S. Undersecretary of Commerce for Economic Affairs during the Clinton Administration, February, <http://www.aci-citizenresearch.org/Shapiro.pdf>]

Another critical economic issue is the degree to **which a carbon tax would focus environmental improvements where they can be achieved most cheaply or efficiently – getting the biggest environmental bang for the dollar, Euro or yen**. Cap-and-trade programs achieve this by using tradable permits: In principle, companies that can reduce their emissions enough to achieve their caps for less than the price of a permit can be expected to do that; while companies that would have to spend more to reduce their emissions than the price of a permit will buy the permits from those who can do it more cheaply. In practice, Kyoto's 1990 base year sharply reduced this benefit by effectively relieving companies in Russia, Eastern Europe and Germany from making these calculations, along with companies in every developing nation. A global cap-and-trade program's special vulnerability to cheating will further reduce these potential gains: Many companies and countries are likely to bring their emissions under their caps by simply understating them, without bothering to invest in energy-efficient technologies, shift to alternative fuels or buy permits from others who have done so. **Carbon taxes can achieve this form of economic efficiency without a cumbersome trading mechanism susceptible to cheating and other distortions. The tax would raise the price of carbon-based energy in proportion to its carbon content, so that countries and companies that can reduce their carbon emissions for less than the cost of the tax can be expected to do so while those which find that reducing emissions would cost more than the tax will pay it. The consequent reductions in emissions should be greatest where the cost of achieving them is lowest,** both within each country and worldwide, assuming that the world's major greenhouse gas producing countries sign on.

CTX Solves Best

Carbon tax encourages more voluntary reductions in emissions, companies that want to save will reduce emissions while the tax is still low

Inside Green Business, 2007

[“Advocates Say Carbon Tax Rewards Early Action More than Cap-and-Trade,” Vol2, No 10, March 7]

Companies that have voluntarily reduced their greenhouse gas (GHG) emissions in preparation for likely federal climate change regulations **would benefit more from a carbon tax** than a cap-and-trade system, says a source with the Carbon Tax Center (CTC), a newly-formed group advocating carbon taxes as a GHG mitigation policy. **A carbon tax would avoid the complexities of establishing baselines and allocating emission allowances,** which may favor certain types of companies more than others, a CTC source says. **A tax on carbon emissions would reward all reductions equally because any company that cut emissions would inherently reduce its tax liability.** A growing number of companies are committing to reducing emissions voluntarily in hopes that a mandatory climate change mitigation system will award credit to companies that act early. The Chicago Climate Exchange (CCX), for instance, allows companies to set and meet voluntary reduction targets through credit trading, while the California Climate Action Registry (CCAR) helps companies measure emission levels so verified baselines can be established under a regulatory system. The Department of Energy also has a voluntary emissions reporting program, known as “1605b.”

CTX Solves Best

Net benefit of a carbon tax over the status quo is five times greater

Orszag, 2008

[Director of the CBO, The Congress of the United States, Congressional Budget Office, February, "Policy Options for Reducing CO2 Emissions," CBO Study No. 2930]

The efficiency advantage of a tax over an inflexible cap depends on how likely it is that actual costs will differ from what policymakers anticipated when they set the level of the cap. Given the uncertainties involved, such differences are likely to be large—and, therefore, **analysts generally conclude that the efficiency advantage of a tax is likely to be quite large.** Specifically, **available research suggests that in the near term, the net benefits (benefits minus costs) of a tax could be roughly five times greater than the net benefits of an inflexible cap.**² Put another way, **a given long-term emission-reduction target could be met by a tax at a fraction of the cost** of an inflexible cap-and-trade program.

CTX Solves Warming

Industry is trying to build more coal plants – a carbon tax would discourage the building of new plants and reduce global warming.

Kriz 2007

[Margaret, "Dingell's Dare," the National Journal, October 20

For business, **a carbon tax would likely provide more certainty about the future.** Although a cap-and-trade program would tightly rein in the amount of global-warming pollution that industries could emit each year, company executives could not be sure in advance how much it would cost them to meet the government's environmental goals, because the cost of a carbon credit would fluctuate. In contrast, **a carbon tax would specify how much money a company would owe per ton of greenhouse-gas pollution emitted.** On the downside, economists concede that it's hard to predict how high a carbon tax would need to be to drive down greenhouse-gas emissions. A study by the American Enterprise Institute, a conservative think tank, suggested that **a carbon tax of \$15 per ton of carbon dioxide emission would reduce global-warming pollution by 11 percent.** "Yes, it's an assumption," said **AEI resident scholar Kenneth Green,** who **co-authored the June study.** "But it's an assumption based on something that is **as close to a law as economics has -- that is: If you increase price, you'll decrease demand.**" Paul Portney, dean of the University of Arizona's College of Management, said that a carbon tax would send clear price signals to the market that would encourage companies and the public to pollute less. **"We can start small, and the tax will go up gradually but predictably over time so that people can plan,"** said Portney, **the former president of Resources for the Future, a think tank** that focuses on the economics of environmental policy. "They'll know that in the future, if they're buying a new car, they're going to be paying more for gas." Pope predicts that **a carbon tax would discourage electric utilities from constructing more coal-fired power plants to help meet America's growing demand for power and that they would instead turn to generators that play little or no role in global warming.** The Energy Department says that **the industry has more than 100 coal plants on the drawing board.** **"If investors know they'll be paying more to operate coal plants, they'll stop building them,"** Pope said.

CTX Solves Warming

Carbon tax will encourage producers of greenhouse gasses to produce less pollution and switch to alternative energies

Rosenblum 2007

[Daniel, an environmental attorney and cofounder of the Carbon Tax Center in New York City, Originally Aired: April 11, 2007, News Hour Transcript, PBS, Interview with Ray Suarez, Carbon Tax Aims to Cut Greenhouse Gases, download date: 6-18-08
http://www.pbs.org/newshour/bb/environment/jan-june07/climatechange_04-11.html]

RAY SUAREZ: **How would that eventually reduce the amount of greenhouse gases released into the atmosphere?** DANIEL ROSENBLUM: **There are costs society incurs when carbon is emitted. And nobody pays for it right now. Because it's free, nobody cares about it. So we put a price on carbon, and people start to use less.** How? Electric generation. **Electric generators will use less coal, more gas, more wind, more solar...** RAY SUAREZ: In order to pay less tax? DANIEL ROSENBLUM: **In order to avoid the tax on the coal, individuals will probably get a more-efficient car. They'll drive less.** They'll do whatever they can to avoid paying for the carbon tax on their gasoline.

CTX Solves Warming

People will stop emitting pollution and greenhouse gases because they know the prices will continue to go up

Rosenblum 2007

[Daniel, an environmental attorney and cofounder of the Carbon Tax Center in New York City, Originally Aired: April 11, 2007, News Hour Transcript, PBS, Interview with Ray Suarez, Carbon Tax Aims to Cut Greenhouse Gases, http://www.pbs.org/newshour/bb/environment/jan-june07/climatechange_04-11.html

RAY SUAREZ: Well, **how do we know, then, that raising the tax will actually decrease usage or decrease emissions?** Just in the past few years, we've seen gas go from 99 cents a gallon to \$3.50, and it hasn't had too much an impact on the way people drive or how many miles they drive. DANIEL ROSENBLUM: You expect to have gas and consumption rise with GDP. **As the economy grows, gasoline consumption grows. Gasoline consumption has not grown as much as the economy, and that suggests there has, in fact, been a very real impact of higher prices.** And that goes back and forth, and people are subject to kind of wide changes in the market recently. But when you have a very clear trajectory going up, you're going to have a different message to consumers. **Right now, they don't know if it's going to go up half a dollar next week and down a dollar next week or the week after. Under a carbon tax, they're going to know. They're going to know that a carbon tax is going up, and up, and up, and up. There's no getting around it, so they're going to know they're going to have to respond to it,** and they haven't had that information.

CTX Solves Warming

Tax is the best way to reduce CO2 emissions – they make targets easier to achieve

Orszag, 2008

[Director of the CBO, The Congress of the United States, Congressional Budget Office, February, "Policy Options for Reducing CO2 Emissions," CBO Study No. 2930]

Analysts generally conclude that **a tax would be a more efficient method of reducing CO2 emissions than an inflexible cap. The efficiency advantage of a tax stems from the contrast between the long-term cumulative nature of climate change and the short-term sensitivity of the cost of emission reductions.** Climate change results from the buildup of CO2 in the atmosphere over several decades; emissions in any given year are only a small portion of that total. As a result, **limiting climate change would require making substantial reductions in those emissions over many years, but ensuring that any particular limit was met in any particular year would result in little, if any, additional benefit** (avoided damage). In contrast, the cost of cutting emissions by a particular amount in a given year could vary significantly depending on a host of factors, including the weather, disruptions in energy markets, the level of economic activity, and the availability of new low-carbon technologies (such as improvements in wind-power technology).

CTX Solves Warming

Carbon tax will level the playing field by making fossil fuel energy more expensive and alternatives more worthwhile to invest in – Carbon tax is also the best way to solve a warming crisis that has an invisible threshold for catastrophe

Gillentine, 2007

[Amy, Colorado Springs Business Journal, February 23, 2007, "Carbon tax takes lead over emissions capping"]

A carbon tax - based on emissions from cars, homes, power plants and corporations - is more likely to successfully lower carbon dioxide in the atmosphere than a carbon trading system. That's the word from the Congressional Budget Office, as well as environmental analysts. Both groups say that a carbon tax would be more efficient than emissions capping. And Dr. Walt Hecox of Colorado College believes a carbon tax would more efficiently lower carbon emissions. "It's what economists call a negative externality," he said. **Taxes are assessed based on the type of fuel used and how much carbon it releases. And the tax revenue could be used to mitigate the cost to the poor, or to invest in alternative energy sources.** " Carbon trading - on a commodities market, where a cap is set and companies who emit less carbon than the cap can sell the remainder to another company - is based in the private sector, Hecox said. Europe introduced a carbon emissions market after the 1997 Kyoto Protocol, he said, although the market has faced some big problems. "The problem is they over-estimated the number of permits," he said. "So the price has fallen. With a cap-trade system, there's no revenue for the government, no real incentive to invest in other sources of energy. " The United States has a single, voluntary carbon emissions trading system: The Chicago Climate Exchange. It is self-regulating and voluntary, but legally binding. The group requires members to reduce emissions by 6 percent below the Kyoto baseline no later than 2010. The exchange opened in 2001, and carbon is traded, much like any other commodity. Just like any commodity, the price fluctuates. The cumulative trading volume between March 2003 and May 2006 reached 6.5 million metric tons. The CBO researched the issue in 2005, and decided that the carbon tax would be a better effort than a cap-and-trade system. "Neither the costs nor benefits (of reducing emissions) are known with certainty," the CBO said in its report to Congress. "For that reason, the best policy makers can do is to choose the policy instrument that is most likely to minimize the cost of making a 'wrong' choice. **Because the cost of controlling carbon is unknown, most economists believe the best idea is one that controls price, not quantity. The amount of carbon dioxide produced when a fuel is burned is a known quantity, experts say, and a price can easily be fixed to it. It's going to make carbon-based energy more expensive.**" said Colorado School of the Mines Professor J. Thomas McKinnon. "And **it will force companies and people to be more efficient. It will level the playing field for non-carbon based fuels, give incentives for investment in wind energy or solar centric power companies. There's a lot of room for innovation if the playing field is level.** " The CBO noted that a cap-trade system doesn't allow for flexibility. Because the costs of reducing emissions is unknown, a cap system might not allow enough financial incentives if actual costs are much higher than anticipated costs. "The less information policymakers have about the cost of meeting a particular emission cap, the greater the advantage offered by an emission price," the report said. "The cost of meeting a given cap on carbon emissions is likely to be difficult to estimate for at least three reasons. First, the cost of meeting a future cap would vary significantly with the amount of growth in carbon emissions in the interim. ... Second, policymakers have less information about the cost of controlling emissions than do the firms that create them. Third, the cost of meeting the future cap will depend on the technologies that are developed to reduce carbon dioxide emissions and the economic consequences of adopting those technologies - neither of which can be predicted with certainty. " One group that is interested in leveling the playing field is the New York City-based Carbon Tax Center. In its plan, the tax - which starts at 10 cents for a gallon of gas, and increases in 10-cent increments during a 10-year period - would be "revenue neutral," said co-founder Charles Komanoff. "The money could be spent in two ways: we could give it back to the taxpayer, much like they do the income from the Alaskan oil pipeline," he said. "Or it could be used to lower Social Security payments. Our plan isn't to put the money into alternative fuels or to subsidize an industry. " Komanoff said the organization believes the carbon tax is "more fair, more understandable. " "We can get it into place quicker, and it will cover all uses of carbon fuels," he said. "It will exclude those financial types hovering at the trough. " But Komanoff's group isn't the only one interested in a carbon tax. Many national and multinational companies are supporting a national carbon tax - as opposed to various state taxes and a myriad of international taxes. "Many of these large companies think the worst thing to do is have 50 different taxes when they're trying to do business," Hecox said. "They know some kind of change is inevitable and they prefer a single, national tax, a multinational tax would be even better in their view. " Pressure from businesses will lead to legislation by the end of President Bush's current term, he said. The European Union is threatening to impose a carbon tax on American imports. "It's probably not legal under the WTO (World Trade Organization)," he said. "But they're going to try it if the United States doesn't take some steps of its own. That's increasing the pressure to get something done sooner. " **The Congressional Budget Office says the uncertainty about climate change science - if there is a specific temperature that will trigger catastrophic damages - lends more credence to a carbon tax than a cap and trade system. If there is uncertainty about either the existence or the level of a trigger temperature - as is currently the case - the potential advantages of an emission cap decline.**" the CBO report said. **Under those circumstances, it is no longer clear whether, or at what level, to set a cap to avoid a catastrophic outcome. ... A price instrument is generally superior if damages are expected to grow, but at a gradual rate of increase.** "

CTX Solves Warming

Carbon tax is the best way to massively reduce CO2 emissions and stop carbon-dioxide production at all levels of the production cycle

Komanoff, May 2, 2008

[<http://www.carbontax.org/introduction/#why>, Retrieved June 16, 2008, Charles, energy-policy analyst, transport economist and environmental activist]

The rationale for a carbon tax is simple: **the levels of CO2 already in the Earth's atmosphere and being added daily are destabilizing established climate patterns and threatening the ecosystems on which we and other living beings depend. Very large and rapid reductions in the United States' and other nations' carbon emissions are essential to reverse runaway climate change and avert resulting severe weather events, inundation of coastal areas, spread of diseases, failure of agriculture and water supply, infrastructure destruction, forced migrations, political upheavals and international conflict. A carbon tax must be the central mechanism for** reducing carbon emissions. Currently, the prices of gasoline, electricity and fuels in general include none of the costs associated with devastating climate change. This omission suppresses **incentives to develop and deploy** carbon-reducing measures such as energy efficiency (e.g., high-mileage cars and high-efficiency heaters and air conditioners), **renewable energy** (e.g., wind turbines, solar panels), low-carbon fuels (e.g., biofuels from high-cellulose plants), **and conservation-based behavior such as bicycling, recycling and overall mindfulness** toward energy consumption. Conversely, **taxing fuels according to their carbon content will infuse these incentives at every chain of decision and action — from individuals' choices** and uses of vehicles, appliances, and housing, **to businesses' choices** of new product design, capital investment and facilities location, and governments' choices in regulatory policy, land use and taxation.

CTX Solves Economy

Graduated carbon tax will NOT harm the economy and spurs innovation

Levin, President, Yale University, April , 2008

[Richard C., "Greenhouse Gas Emissions and Higher Education" CQ Congressional Testimony]

Before commenting on the big question, let me make a couple of additional observations. First, whether one sets taxes or emissions quotas, **most economists favor gradualism,** for compelling reasons. **Adjustment in the short run is much more costly than adjustment over a decade or two,** when energy- inefficient capital equipment and motor vehicles can be phased out gradually in favor of more efficient alternatives. **What is essential for the efficient operation of either a tax or a cap-and-trade regime is that individuals and businesses know what their taxes or allowances will be well into the future. A gradually rising tax on carbon or a gradually falling quota on carbon emissions that is credible will be sufficient to elicit socially optimal investment decisions, both in the deployment of existing technologies and in the development of new technologies.** It imperative that we act soon but it is not necessary to impose high taxes or low quotas immediately.

CTX Solves Economy

Actual cost of carbon tax to the industry will be low

Levin, President of Yale University, April 3, 2008

[Richard C., "Greenhouse Gas Emissions and Higher Education" CQ Congressional Testimony]

So, how high a carbon price do we need? **To reduce annual global emissions 25% by 2050, the Stern Review finds that we would require a carbon tax** (or a market price of tradable emissions allowances) **in the range of \$350-400 per ton of carbon by 2015, rising to more than \$600 per ton by 2050.** Fortunately, my Yale colleague, William Nordhaus, demonstrates convincingly that Stern's estimate is too high. **Nordhaus' own model indicates the same reduction in emissions can be achieved by a carbon price that rises gradually from \$35 per ton in 2015 to about \$100 per ton in 2050.**

CTX Solves Economy

Carbon tax can be returned to the taxpayer

Mankiw, Professor of Economics, Harvard, 2007

[Gregory, Professor of Economics at Harvard University, Morning Edition, NPR, "Tax Hike to Help Environment a Hard Sell"]

Prof. MANKIW: What the carbon tax would do is that we put a price on carbons. So if you want to release carbon into the atmosphere, you have to pay a tax. For example, an electricity company burns coal and emits carbon into the atmosphere by burning coal, it's going to have to pay a tax. And that'll provide an incentive to release less carbon.

YDSTIE: And...

Prof. MANKIW: And that would, eventually, of course, be passed onto consumers in a form of higher electricity prices. But at the same time, the carbon tax will give the government revenue that it can then turn around and recycle and give back to consumers. So the income hit or these higher prices will be offset to some extent by lower taxes in, say, their earning or other forms of income.

CTX Solves Economy

Carbon Tax creates certainty in the economy and stabilizes the energy markets

Financial Times, 2007

["Carbon markets create a muddle," http://www.ft.com/cms/s/0/4b80ee18-f393-11db-9845-000b5df10621.html?ncllick_check=1, April 26]

Climate change poses a classic spill-over problem: individuals do not suffer the full burden of producing carbon dioxide, but society does. To equate the private cost to the higher social cost, governments can create markets for carbon, by using tradeable permits, or impose a tax. So far, the preferred method has been tradeable permits. Creating markets for carbon has political advantages. They are easy to sign into law and even easier to execute. Instead of the optimal method of auctioning permits, governments have given them away. It is no wonder that energy producers are keen to participate in these schemes. While short-term politics favour markets, taxes would be better in the long term, because industry needs certainty for investments years hence. **A government committing to painful taxes signals the seriousness of its intentions. Carbon taxes,** offset by cuts in other taxes, **are more difficult to eliminate** than artificial markets. Carbon markets have other problems. Above all, they fix the amount of carbon abated, not its price. Getting the amount of emissions a little bit wrong in any year would hardly upset the global climate. But excessive volatility or unduly high prices of quotas on carbon emissions might disrupt the economy severely. **Taxes create needed certainty about prices,** while markets in emission quotas create unnecessary certainty about the short-term quantity of emissions. Both carbon taxes and markets put undue burden on the poor. Governments should counter such regressive carbon taxes by lowering taxes on labour. Yet most of the political appeal of markets is that they hide the true costs to consumers. That is why carbon markets exist in the first place. For this reason it is unlikely that governments would offset the invisible burden of markets by changing visible taxes. Smart market design could overcome most problems with tradeable permits: price caps could prevent undue harm to the economy; and intelligent regulatory regimes could prevent other forms of gamesmanship. Yet **markets are bound to be more complicated than taxes. When in doubt, keep it simple. Markets for carbon are potentially good. But taxes would be better.**

CTX Solves Economy

Carbon tax avoids price volatility and helps consumers through offsets elsewhere – the current system discourages innovation in alternative technology

L.A. Times, 2007

["A WARMING WORLD: Time to tax carbon," May 28, 2007, <http://www.latimes.com/news/opinion/la-ed-carbontax28may28,0,2888366.story?coll=la-opinion-leftrail> download date: 6-17-08]

That kind of **price volatility**, which has been **endemic to both the American and European cap-and-trade systems, doesn't just hurt consumers. It actually discourages innovation, because in times when power demand is low, power costs are low, and there is little incentive to come up with cleaner technologies.** Entrepreneurs and venture capitalists prefer stable prices so they can calculate whether they can make enough money by building a solar-powered mousetrap to make up for the cost of producing it. **Carbon taxes avoid all that. A carbon tax simply imposes a tax for polluting** based on the amount emitted, **thus encouraging polluters to clean up and entrepreneurs to come up with alternatives. The tax is constant and predictable.** It doesn't require the creation of a new energy trading market, and it can be collected by existing state and federal agencies. It's straightforward and much harder to manipulate by special interests than the politicized process of allocating carbon credits. **And it could be structured to be far less harmful to power consumers.** While all the added costs under cap-and-trade go to companies, utilities and traders, **the added costs under a carbon tax would go to the government** — which could use the revenues to offset other taxes. So while consumers would pay more for energy, they might pay less income tax, or some other tax. **That could greatly cushion the overall economic effect.**

CTX Solves Economy

Carbon tax would generate billions in revenue each year

Kriz 2007

[Margaret, "Dingell's Dare," the National Journal, October 20]

But proponents argue that **Congress could adjust the tax code to lessen the impact on rural workers and low-income families.** In fact, economists and lobbyists are already debating what the government should do with the mountain of money that **a carbon tax would raise.** If fully implemented, Dingell's tax could generate **\$150 billion to \$200 billion per year, according to** Charles Komanoff, **co-founder of the Carbon Tax Center,** a New York City-based economic advocacy group.

CTX Solves Economy

Most economically efficient way to reduce CO2

Orszag, 2008

[Director of the CBO, The Congress of the United States, Congressional Budget Office, February, "Policy Options for Reducing CO2 Emissions," CBO Study No. 2930]

According to many analysts, **a tax would be a more economically efficient policy for reducing CO2 emissions** than an inflexible cap (with "inflexible" meaning a cap whose level was not affected by the price of emission allowances). **That conclusion stems from the cumulative, long-term nature of climate change: The benefit of emitting one less ton of CO2 in a given year is roughly constant, whereas the cost of emitting one less ton of CO2 each year rises with each ton reduced.** The reason for rising marginal costs is that **companies** that have to comply with an emission-reduction policy **will make the cheapest cuts first and progressively more expensive cuts thereafter.**

CTX Solves Economy

Carbon taxes are the only hope for a soft landing to save the economy

New Statesman, 2004

[Why al-Qaeda may save the world, 6/7/04]

The great strides in energy efficiency made by manufacturing industries have been offset by an increasingly profligate use of energy in the service industries and in private consumption: **the growth of external lighting and even external heating; the boom in SUVs and 4x4s; the growth of long-distance commuting and out-of-town superstores; the explosion of short-break overseas holidays;** the development of centralised food distribution that requires a carrot to travel halfway across the country before it can get to a shop a few miles from where it was grown, and a pig to cross international borders to become ham before returning to the country it started from. **All this is the result of low oil prices, which encourage unnecessary energy consumption and discourage innovations in alternative energy.** The corrupt rulers of major oil-producing countries have every reason to heed western entreaties to hold prices down. By doing so, they keep out new entrants to the energy market. As a former Opec secretary general once observed, the Stone Age did not end because people ran out of stones. It ended when people found something better. The same is true of oil which, despite some forecasts, is unlikely to save us all by running out. **The world has two hopes. One is to engineer a soft landing from oil by gradually raising taxes** and otherwise penalising its use. So Gordon Brown, the Chancellor, should resist, in his best Calvinist manner, the planned protests against fuel taxes which are being encouraged, with typical opportunism, by Michael Howard, the Tory leader. **The second hope is terrorism in the Middle East. This can bring about a hard landing by knocking out the Saudi oil industry and, with it, 10 per cent of world oil production. The soft landing is infinitely preferable.** But if governments cannot do the job, the world may yet have cause to be grateful to al-Qaeda.

CTX → Renewables

Redirecting the tax to renewable and alternative energy subsidies ensures the plan will work and not get railroaded by Washington lobbyists and pork projects. The USFG should tax the industrialization of carbon to stop emissions

Prasad, Faculty Fellow, Institute for Policy Research, Northwestern, 2008

[Monica, faculty fellow at the Institute for Policy Research at Northwestern University, "On Carbon, Tax and Don't Spend," New York Times, pg. 27, March 26, Lexis-Nexis]

What did Denmark do right? There are many elements to its success, but taken together, the insight they provide is that **if reducing emissions is the goal, then a carbon tax is a tax you want to impose but never collect.** This is a hard lesson to learn. The very thought of new tax revenue has a way of changing the priorities of the most hard-headed politicians - even Genghis Khan learned to be peaceful, the story goes, when he saw how much more rewarding it was to tax peasants than to kill them. But if we want lower emissions, the goal of a carbon tax is to prompt producers to change their behavior, not to allow them to continue polluting while handing over cash to the government. How do you get them to change? **First, you prevent policymakers from turning the tax into a cash cow. Carbon tax discussions always seem to devolve into gleeful suggestions for ways to spend the revenue.** Reduce the income tax? Give the money to low-income consumers? Use it to pay for health care? Everyone seems to forget that the amount of revenue is directly tied to the amount of pollution that is still going on. **Denmark avoids the temptation to maximize the tax revenue by giving the proceeds back to industry, earmarking much of it to subsidize environmental innovation. Danish firms are pushed away from carbon and pulled into environmental innovation, and the country's economy is not put at a competitive disadvantage.** So this is lesson No1 from Denmark. The second lesson is that the carbon tax worked in Denmark because it was easy for Danish firms to switch to cleaner fuels. Danish policymakers made huge investments in renewable energy and subsidized environmental innovation. Denmark back then was more reliant on coal than the other three countries were (but not more so than the United States is today), so **when the tax gave companies a reason to leave coal and the investments in renewable energy gave them an easy way to do so, they switched. The key was providing easy substitutes.** The next president of the US seems sure to be more committed to environmental policy than the current president is, and a carbon tax is high on everyone's list of options. Indeed, a carbon tax has been promoted almost as a panacea - just pop in the economic incentives and watch them work their magic. But **unless steps are taken to lock the tax revenue away from policymakers and invest in substitutes, a carbon tax could lead to more revenue rather than to less pollution.** An increase in gasoline taxes - the first instinct of many American policymakers when the idea of a carbon tax comes up - would likewise be the wrong policy for the US. Higher gas taxes would raise revenue but do little to curb pollution. Instead, **if we want to reduce carbon emissions,** then we should follow Denmark's example: **tax the industrial emission of carbon and return the revenue to industry through subsidies for research and investment in alternative energy sources, cleaner-burning fuel, carbon-capture technologies and other environmental innovations.**

CTX → Renewables

Graduated carbon tax is the most efficient way to switch to alternative energy - carbon taxes are cheaper to implement and allows companies to reduce emissions more effectively.

Foster Natural Gas Report, 2008

[CONGRESSIONAL BUDGET OFFICE TOUTS CARBON TAX AS BETTER CHOICE THAN A CAP-AND-TRADE SYSTEM IN CURBING EMISSIONS, Page 3., February 29]

A tax on carbon dioxide would reduce emissions more effectively than a cap-and-trade system, the Congressional Budget Office (CBO) concluded in a February 19 report. The report (No. 2930), Policy Options for Reducing CO2 Emissions, examined four policy options for reducing carbon dioxide emissions in the U.S. Its conclusions seem to go against the trend of public and international opinion. "The most efficient policy tool for decreasing carbon dioxide emissions is the one that can best balance the costs and benefits of the reductions, even when both are uncertain," the CBO explained. "The features that make a policy tool most efficient would also enable it to minimize the cost of achieving a given target, even if that target was not explicitly chosen to balance costs and benefits. A carbon tax would be a more efficient method of reducing carbon dioxide emissions than an inflexible cap. The efficiency advantage of a tax stems from the contrast between the long-term cumulative nature of climate change and the short-term sensitivity of the cost of emission reductions." The Energy Information Administration (EPA) issued in January an analysis of pending legislation (S. 1766), at the request of Senators Jeff Bingaman (D-N.M.) and Arlen Specter (R-Penn.), regarding the reduction of greenhouse gas emissions through the use of "alternative technologies," such as carbon sequestration used in the coal-fired generation of electricity. The EIA generally concluded that this approach would "significantly reduce" projected emissions, when compared to a reference case using the Annual Energy Outlook (AEO) 2007. Under the proposed legislation, coal-fired technologies using carbon sequestration would benefit the most, but the EIA predicted that 300 GW of new coal-fired capacity would have to be installed by 2030 (under its core case), replicating almost the amount of existing coal-fired capacity. The EIA presented its findings in the report, Energy Market and Economic Impacts of S. 1766, the Low Carbon Economy Act of 2007, January 2008. (FNGR No. 2677, pp5-7) The four incentive-based policy options that the CBO examined included: a carbon tax, a cap-and-trade system with emissions banking, a "safety valve" cap-and-trade system with emissions banking and a "circuit breaker," and a cap-and-trade system with "no flexibility." The CBO looked at how the options offered (1) efficiency in maintaining a balance between the uncertain benefits and costs of reducing carbon dioxide emissions; (2) the ease or difficulty of implementation; and (3) possible interaction with other countries' policies for curbing carbon dioxide. **Under a carbon tax, policymakers would levy a fee for each ton of carbon dioxide emitted or for each ton of carbon contained in fossil fuels.** The tax purportedly would motivate entities to cut back on their emissions if the cost of doing so was less than the cost of paying the tax. As a result, **the tax would place an upper limit on the cost of reducing emissions,** but the total amount of carbon dioxide that would be emitted in any given year would be uncertain. By contrast, under a cap-and-trade program policymakers would set a limit on total emissions during some period and require regulated entities to hold rights, or allowances, to the emissions permitted under that cap - with each allowance entitling companies to emit one ton of carbon dioxide or to have one ton of carbon in the fuel that they sold. After the allowances for a given period were distributed, entities would be free to buy and sell the allowances among themselves. Unlike a carbon tax, a cap-and-trade program would place an upper limit on the amount of emissions, but the cost of reducing emissions would vary on the basis of fluctuations in energy markets, the weather, and the technologies available for reducing gases. The CBO acknowledged that **"uncertainty exists" about the cost of reducing emissions, but under these circumstances a carbon tax has significant advantages. "If policymakers chose to specify a long-term target for cutting emissions, a tax could be set at a rate that could meet that target at a lower cost than a comparable cap."** the report said. "In addition, **if policymakers set the tax rate at a level that reflected the expected benefits of reducing a ton of emissions - which would rise over time - a tax would keep the costs of emission reductions in balance with the anticipated benefits,** whereas a cap would not." The significant interest in a cap-and-trade approach - which is already being used in the U.S. to reduce sulfur dioxide and nitrous oxide emissions (acid rainmakers) and is used in Europe to limit carbon dioxide emissions - also makes it an option in the CBO's opinion, even if less desirable. Under a cap-and-trade approach, regulators can set a "ceiling" (safety valve) or a "floor" (circuit breaker) on the price of emission allowances, and maintain the ceiling or floor by selling allowances. "Banking" of allowances permits the trading of allowances in one year for use in future years or "borrowing" allowances for use in an earlier year. The use of a circuit breaker gradually halts the levels of the cap, if the price of allowances exceeded a specified trigger price, which would resume if the price of allowances falls below a trigger price. Loosening or tightening the cap could be achieved indirectly by altering conditions under which firms could bank or borrow allowances, the CBO explained. All of the four policy options differ in their potential to reduce emissions, and they all differ in implementation costs, the CBO said. **A tax on emissions would be the most efficient incentive-based option for reducing emissions and relatively easy to implement. The carbon tax would offer entities the ability to reduce more emissions when the cost of doing so is relatively low and, alternatively, offer them the ability to reduce emissions less when the cost of reducing is higher.**

CTX → Renewables

Plan encourages the use and development of renewables

Moberg 2002

[David, "America's Green-Labor Alliance," In These Times, www.alternet.org/module/printversion/12734 download date: 6-12-08]

In February, leaders of the Service Employees, Steelworkers and UNITE (apparel and textile workers) joined with major environmental groups, such as the Sierra Club, Union of Concerned Scientists and Natural Resources Defense Council, to endorse a study by economists James Barrett, recently with the Economic Policy Institute, and J. Andrew Hoerner of the Center for a Sustainable Economy. "We in the labor movement are not going to make a choice between good jobs and a safe environment," UNITE president Bruce Raynor said on the release of the report. "We're for both." Barrett and Hoerner propose **a modest, steadily increasing tax on the carbon content of energy.** Such a plan **would reduce use of the energy sources most responsible for global warming-such as coal and oil-by encouraging greater efficiency and switching to less harmful power sources, including renewables like solar and wind.** But unlike many other carbon tax proposals, which rely solely on market price signals, Barrett and Hoerner recognize that engineers have already identified a wide range of opportunities to increase energy efficiency-and often productivity as well-using existing technology that is cost-efficient but not implemented as widely as it should be, such as compact fluorescent light bulbs or efficient electric motors. Barrett and Hoerner's "Clean Energy and Jobs" report proposes **a technology policy, tailored to the specific opportunities for greater efficiency in businesses, government and household use, which can both offset some of the costs of the carbon tax and increase efficiency faster than a carbon tax alone.** **Their proposal would** not only promote energy-efficient buildings and mandate higher fuel-efficiency standards for autos and light trucks, but **provide tax incentives for super-efficient vehicles and renewable energy production.** But unlike many environmentalists, Barrett and Hoerner take seriously the potential for economic disruption caused by a shift in energy policy, particularly the hardship on lower-income workers who could face higher energy costs.

CTX → Renewables

Carbon tax is the best policy option to move the country to alternative energies – its easy to enforce, easy to collect, and easy to reinvest in alternative forms of energy

Crane and Bartis, RAND Corporation, 2007

[Keith and James, a senior economist and a senior policy researcher at the RAND Corporation “On Carbon Dioxide, a Better Alternative (complete),” washingtonpost.com's Think Tank Town, November 29, <http://www.washingtonpost.com/wp-dyn/content/article/2007/11/28/AR2007112802160.html>

A tax is simple and can be phased in quickly. It encourages individuals and businesses to make long-term decisions with confidence, rather than trying to guess what the future price of permits will be.

With a tax and refund, consumers would only pay the extra costs associated with carbon abatement measures. **A carbon dioxide tax with refund can be implemented easily. It can be collected at a few key links in the supply chain: refineries, power plants or pipelines.** As shown by last year's refund of excess telephone taxes, the Internal Revenue Service can efficiently refund payments to all taxpayers. If passed by this Congress, taxpayers could see their first refunds in the Spring of 2009. A carbon dioxide tax can be easily adjusted as lower-cost means of reducing emissions are tapped and new technologies become available to tackle more difficult sources. **The tax could be started** low, but **with a clear schedule of increases so that individuals, local governments and businesses will begin now to make the changes and investments required to dramatically reduce emissions within 15 years.** Partial refunds could be targeted to U.S. producers in industries like petrochemicals, steel and aluminum so that they remain competitive with imports, while pushing them to invest in reducing emissions. **These targeted refunds would prevent highly polluting foreign plants from destroying efficient energy-intensive industries in the United States.** U.S. consumers and industry need to reduce carbon dioxide emissions. A refunded carbon dioxide tax is the best way to achieve reductions. It is simple, good for the planet, and imposes the least additional costs on the American economy as compared to any other policy alternative. Most importantly it can be crafted to ease the burden on families and protect industries from unfair competition in the global marketplace.

CTX → Wind Power

Wind would become the cheapest source of power

Schrag, March 2, 2008

Duane, The Salina Journal (Kansas), "Wind's Future Appears Optimistic," Page A8]

A newly released study by the Kansas Corporation Commission concludes that substituting wind for existing power would slightly raise the cost of electricity -- from virtually no increase to as much as half a cent a kilowatt hour (the retail price is typically 6 to 10 cents), depending on the utility. **But if a long-anticipated carbon tax is imposed, wind could easily become, hands-down, the cheapest source of power.** The report's cautionary tone -- it notes that at one point that an increase of one-thousandth of a cent a kilowatt hour might not be much, but "that it is an increase in the critical element" -- doesn't appear to be shared by wind farm developers.

CTX → Wind Power

Plan would make wind cost effective compared to coal or natural gas

Schrag, March 2, 2008

[Duane, The Salina Journal (Kansas), "Wind's Future Appears Optimistic," Page A8]

What the governor received was **the cost/benefit implications if utilities were to displace some of their current power with wind**. Thus, the study compares the full cost of wind with the savings utilities would incur by using less fuel. For utilities that rely heavily on natural gas, using wind instead **adds virtually no cost**. The study found that for the average utility that meets the governor's challenge by buying wind from a wind farm, rates would go up 0.28 cents a kilowatt hour. Interestingly enough, it concluded that if utilities built, owned and managed their own wind farms, rates would go up 0.51 cents. **The increased cost reflects the assumption that utilities won't be as aggressive and effective in controlling costs if they own the wind farms**. However, **a carbon tax would change all that**. When a carbon tax will be imposed, and how large it will be, has been the subject of considerable speculation. The Kansas Legislature has flirted with the idea; Congress has been talking about one for years. It is one of the reasons Westar Energy recently announced it is putting off for as long as possible its plans to build a new coal-fired power plant. Speculation is that a carbon tax will be **anywhere from \$5 a ton to \$50 a ton of carbon dioxide**. The proposed coal plants in Holcomb would emit about 1,300 tons of carbon dioxide every hour. "It is possible that potential carbon tax savings **would push the challenge into the cost-effective category**," the report says. "... **The carbon tax would need to be about \$37/ton** in order to push the challenge into the cost-effective category." Wind is still often described as being more expensive than coal. Filings with the KCC reveal that Westar Energy has a 20-year contract to buy wind power at 4.1 cents a kilowatt hour. At the same time, it estimates that if it built a new coal-fired power plant, the electricity would cost 5.5 cents. "When it is properly sited, **(wind) is already cost-competitive with new coal or new nuclear**," Parkinson said. **"If a carbon tax is imposed, then we will very quickly develop thousands of megawatts of wind."**

CTX Solves Efficiency

Carbon tax easier to plan for, easier to implement, and more efficient

Cranford, 2007

[John, CQ Columnist, CQ Weekly, "Political Economy: In a Pigovian's Eye," November 10]

The fact is, either system could be made to reduce greenhouse gases. **A tax might be less direct** than a cap on emissions, **but prices have been proved to be very effective tools to control demand.** To argue the contrary is to ignore basic marketplace economics. Moreover, as **Congressional Budget Office Director** Peter R. Orszag **told the House Budget Committee** two weeks ago, a **carbon tax would be "generally the more efficient approach."** **It would be simpler and cheaper to administer.** Taxes are already collected on many fuels at the point of production. **A carbon tax would merely be an adjunct to those and would be readily passed along as a price increase. Such a tax would be transparent to businesses and consumers, and thus easier to plan for.**

CTX Solves Efficiency

Carbon tax is easily enforced by the government

Shapiro, 2007

[Robert J., "Addressing the Risks of Climate Change: The Environmental Effectiveness and Economic Efficiency of Emissions Caps and Tradable Permits, Compared to Carbon Taxes," former U.S. Undersecretary of Commerce for Economic Affairs during the Clinton Administration, February, <http://www.aci-citizenresearch.org/Shapiro.pdf>]

Governments also could enforce a carbon tax system more effectively and cheaply than a cap-and-trade regime. Companies subject to the tax may be tempted to minimize their payments through various forms of evasion or cheating; but on the other side of this transaction, governments will have equally strong incentives to prevent it. Under cap-and-trade, a dishonest energy producer or distributor might understate its fuel production or distribution, so it could sell permits covering the difference between that level and its actual production or distribution; but in that case, the producer or distributor looking to purchase permits has no incentive or interest in preventing the cheating.

CTX Solves Energy Prices

Carbon tax avoids energy price spikes and can be increased to encourage more emission cuts.

Shapiro, 2007

[Robert J., "Addressing the Risks of Climate Change: The Environmental Effectiveness and Economic Efficiency of Emissions Caps and Tradable Permits, Compared to Carbon Taxes," former U.S. Undersecretary of Commerce for Economic Affairs during the Clinton Administration, February, <http://www.aci-citizenresearch.org/Shapiro.pdf>

A carbon tax produces no price volatility, because it raises the cost of energy by the constant amount (depending on its carbon content) regardless of how fast a company, industry or a nation's emissions are growing. **The predictable cost of a carbon tax also simplifies government and business decisions** about the investments and other steps they can take to reduce their emissions and the additional burden of the tax. Its drawback is that **no one can predict how much a particular carbon tax will reduce emissions,** especially since economic demand also affects its impact, **and the tax may be too low to achieve the desired effect on emissions.** However, **this shortcoming should matter less** than the price volatility of cap-and-trade, **since it's correctable: the environmental costs of greenhouse gases are long-term, and governments can raise or lower their carbon taxes, year by year, to achieve the desired reduction in emissions.** While some prominent proposals for a U.S. domestic CO₂ cap-and-trade system include provisions to auction or distribute additional permits when permit prices increase sharply, this addresses the price volatility only once it has already occurred – and in the case of the acid rain program, making more permits available by auctions has not tamed its price volatility. Depending on how sensitive the distribution of new permits is to the rising prices, it also may sacrifice much of the cap-and-trade system's environmental benefits.

CTX Solves Energy Prices

Current system is moving toward a comprehensive cap and trade system that will fail to reduce greenhouse gasses or promote alternative energy – tax on carbon would provide more certainty about rising energy costs

Crane and Bartis, 2007

[Keith and James, a senior economist and a senior policy researcher at the RAND Corporation “On Carbon Dioxide, a Better Alternative (complete),” washingtonpost.com's Think Tank Town, November 29, <http://www.washingtonpost.com/wp-dyn/content/article/2007/11/28/AR2007112802160.html>

Fossil fuel combustion and the consequent release of carbon dioxide **continues as the dominant cause of** increasing amounts of **greenhouse gases** in the atmosphere. Each year **the United States releases into the atmosphere over 6 billion tons of carbon dioxide, roughly a quarter of global emissions.** After years of inaction on this problem, Congress now appears poised to seriously debate legislation designed to reduce greenhouse emissions. **The only effective way to begin reducing greenhouse gas emissions and slow global climate change is to make it more expensive to emit carbon dioxide.** Unless businesses and consumers pay a price for carbon dioxide, neither will make the investments in technology and changes in energy use needed to dramatically reduce emissions. **Most of the climate change legislation currently before Congress proposes a complicated "cap-and-trade" system.** This would set a limit on emissions below current levels and then allocate permits to pollute that could be bought and sold. The alternative would be to impose a direct tax on carbon dioxide emissions. In either case -- tax or trade -- electricity and gasoline prices would rise. A tax of \$30 per ton -- a level MIT suggests would make clean coal technologies an attractive investment to power companies -- would raise gasoline prices by 35 cents per gallon and household electricity bills by 20 to 30 percent. Under cap and trade, prices would have to rise by the same amount to get the same result. The attraction of cap and trade for its supporters is that the cap sets a limit on emissions of carbon dioxide. But it's difficult to get the limit right. The cap may be set too high to induce firms to make the large investments needed to reduce emissions. Or it may be set so low that costs skyrocket and political support to combat climate change falters. The major disadvantage to cap and trade is that the price tag for reaching the target is highly uncertain. In contrast, **a tax on emissions provides businesses and consumers with certainty about costs, while leaving the size of the reduction less certain. After the failed attempt to pass the Clinton administration's 1993 proposal to tax energy, energy taxes have become a highly partisan issue, and Congress has shunned the mere mention of a carbon dioxide tax ever since.** But times have changed. For compelling environmental and economic reasons, **it's high time to put a tax back on the table.** Putting a price on carbon dioxide creates winners and losers. **All of the cap and trade bills before Congress would award permits to energy companies. But any cap on energy use will cause fuel prices to rise.** So consumers will pay for this through higher prices for electricity and gasoline. Instead, we suggest a tax on carbon dioxide in which all the proceeds collected by the government would be returned to Americans each year when they file income taxes.

CTX Solves Cheating

Carbon tax avoids cheating, evasion, corruption and manipulation that occurs in the status quo

Shapiro, 2007

[Robert J., "Addressing the Risks of Climate Change: The Environmental Effectiveness and Economic Efficiency of Emissions Caps and Tradable Permits, Compared to Carbon Taxes," former U.S. Undersecretary of Commerce for Economic Affairs during the Clinton Administration, February, <http://www.aci-citizenresearch.org/Shapiro.pdf>]

The third important difference is that cap-and-trade programs are more difficult to administer and more vulnerable to evasion, corruption and manipulation than carbon taxes. The **administration of a new carbon tax is relatively straight-forward: Each country would apply to every energy source a tax rate which, after counting the country's current energy taxes and subsidies, produces the global net carbon tax rate; and collect the receipts using the same mechanisms it relies on for existing energy or business taxes.** Under cap-and-trade, each country first has to create a new system to distribute its national cap among its energy-related industries and their thousands of companies and plants, in the form of permits; and then set up a new monitoring system to track energy production at every site both before and after any permits are traded. Cheating also poses a more serious problem for cap-and-trade than for a carbon tax. **While some companies will try to evade their carbon taxes, the government on the other side of the transaction has a strong interest in discovering and stopping it.** Under cap-and-trade, when a company fraudulently understates its energy production and emissions so it can sell some of them, the buyer on the other side of that transaction has no incentive to uncover or reveal the fraud. The difference helps explain why one expert has concluded that "cheating will probably be pandemic" under cap-and-trade.⁹

CTX Solves Pollution

Carbon tax solves the societal costs of fossil fuel by redistributing the external costs of pollution and greenhouse gases

Shapiro, 2007

[Robert J., "Addressing the Risks of Climate Change: The Environmental Effectiveness and Economic Efficiency of Emissions Caps and Tradable Permits, Compared to Carbon Taxes," former U.S. Undersecretary of Commerce for Economic Affairs during the Clinton Administration, February, <http://www.aci-citizenresearch.org/Shapiro.pdf>]

A close analysis shows that **concern about the efficiency effects of carbon taxes on relative prices is largely misplaced. Efficient markets depend on** not only the government's disturbing relative prices as little as possible, but also on **a close correspondence between the prices of goods and services and the total costs to produce them.** Economists have long recognized, however, that **the pollution created by the production and use of fossil fuels is a cost** of those fuels not captured in their price. These "externality" costs fall not on those who purchase fuel or the goods produced with it, but **on those who live or work close to where the fuel is produced or used, usually in the form of higher health-care costs. In the case of greenhouse gases and climate change, these costs are borne today by almost everyone,** but again based not on how much fuel a person uses but on where he or she happens to live. **A carbon-based tax could capture the externality costs of those pollution emissions and embed them in the market price of fuel, creating what economists call a market-perfecting Pigouvian tax** (after Arthur Pigou, the English economist who first wrote about these issues). Using a Pigouvian tax that raises the price of a fuel to accurately reflect its externality costs would improve economic efficiency by better aligning the relative prices of things with all of their costs, especially if the revenues were used to offset the costs borne by those subject to its pollution.⁶⁵ While we do not know what precise level of carbon tax would capture all of these costs, **a tax which embeds a significant part of those costs should still improve the efficiency of prices.**

CTX Solves Pollution

Carbon Taxes solve both supply side and demand side drivers of pollution.

Carbon Tax Center, March 21

[<http://www.carbontax.org/>, retrieved June 15, 2008]

The Carbon Tax Center believes that carbon taxes are justified on the principle that prices for fossil fuels should include the "externality costs" their use imposes on society, i.e., that polluters should pay for polluting. Nevertheless, the premise of our carbon tax advocacy is that a carbon tax will reduce the use of fossil fuels and their attendant emissions of carbon dioxide. These emission reductions will come about in two ways: one, suppliers of electricity and fuel will be motivated by market-share considerations and other economic motives to reduce the carbon content of their energy per btu or kilowatt-hour; two, end-use energy users will choose to substitute lower-carbon products and activities for higher-carbon ones in order to minimize their exposure to the carbon tax. The first, "supply-side response" will materialize largely through investment — for example, in carbon-free wind power farms or relatively low-carbon gas-fired generating plants, or in lower-carbon biofuels. The second, "demand-side" response will arise in literally millions of decisions, ranging from the choice of car to drive (in multi-car households) to longer-term location decisions of families, businesses and institutions, all reflecting the fact that usage is at least somewhat sensitive to price, i.e., there is some "price-elasticity" (to use economic jargon) in energy usage. To capture these responses quantitatively, CTC has developed a National Hybrid Carbon Tax Model. The model captures both demand- and supply-side responses to carbon taxes and incorporates time lags in end-users' responses to the tax-induced higher prices. The CTC model also allows estimation of the impacts of complementary taxes on gasoline and jet fuel — possible supplements to a "straight" carbon tax that would accelerate reductions in U.S. oil dependence. This "hybrid carbon tax" approach was proposed in 2007 by Rep. John Dingell, chair of the House Energy & Commerce Committee, and holds promise for joining the interests of climate activists and security advocates.

CTX Solves Emissions

Experts agree that Carbon Tax is the most effective and efficient way to decrease emissions

Canes, Ph.D. in Economics, UCLA, 2007

[Dr. Canes is a senior research fellow at the Logistics Management Institute. He previously was vice president and chief economist of the American Petroleum Institute where he sponsored the early development of the Charles River Associates multi-sector, multi-regional trade model for climate change policy analysis. He's been a member of the faculty at the graduate school of Management at the University of Rochester. He has a Ph.D. in economics from UCLA and a masters of science and economics from the London School of Economics. E&ETV's Event Coverage Vol. 10 No. 9, March 5, "Former API economist Michael Canes says cap and trade costly way to constrain emissions"]

Next slide. So when I look at a carbon tax relative to, when I look at cap and trade relative to a carbon tax, if just those two options are on the table, **I believe a carbon tax would be the more efficient way to go. And a number of economists have looked at this question.** I cite here are four of them, like **Bill Moore has,** who's been working on this problem for many, many years, at Yale, **put out a paper,** again in 2005, on this issue **pointing out how volatile the price of carbon would be under a cap and trade system. And** the price of energy would be volatile as a consequence and **that would have impacts on the economy.** He estimated substantial deadweight losses from such a system and recommended against it. **Richard Cooper at Harvard went over a lot of the same ground, basically hard data that an international trading system is unworkable.** That the monitoring problems are so great and the chances of corrupt entities being involved in it are so great that it probably would not work. **William Poser,** who's at Resources for the Future, back around 1999, wrote a paper in which he compared the carbon tax approach to the cap and trade approach. And **said,** well, depending on, it all depends on the particulars of the cap and trade system, but I find **that the carbon tax is up to five times more cost-effective than is the cap and trade system,** let's say, at its worst. And finally, **Bob Shapiro,** who used to be with the Progressive Policy Institute, was active in the Clinton administration, but now is with a company called Semicon, has just written a paper, it came out in February actually, this month, and, again, **argued against a cap and trade system on many of the same grounds as the other economists. Talked at some length about the dangers of manipulation of the international allowance market by entities with some incentive to do that, but concluded, as the other economists did, that if you go in this direction a carbon tax is the way to go.**

CTX Solves Emissions

Carbon tax is more economically efficient, can be diverted to induce companies to invest in alternative energies, and is the best way to reduce greenhouse gas emissions

Canes, Ph.D in Economics, UCLA, 2007

[Dr. Canes is a senior research fellow at the Logistics Management Institute. He previously was vice president and chief economist of the American Petroleum Institute where he sponsored the early development of the Charles River Associates multi-sector, multi-regional trade model for climate change policy analysis. He's been a member of the faculty at the graduate school of Management at the University of Rochester. He has a Ph.D. in economics from UCLA and a masters of science and economics from the London School of Economics. E&ETV's Event Coverage Vol. 10 No. 9, March 5, "Former API economist Michael Canes says cap and trade costly way to constrain emissions"]

It's going to be **through replacement of less efficient capital stock with more efficient capital stock**. And that **means structures and equipment, buildings**, well, eight track systems and vehicles. And the way, **one way, in which to induce people to do that is to promote strong capital recovery**. That is to say accelerated appreciation or more expensing or whatever it might be that would give people, an investment tax credit maybe, **that would give people inducement to replace capital equipment with more energy-efficient capital equipment**. And **then**, in turn, **strengthen the** voluntary **greenhouse gas reduction programs**. What I mean by that is some of them work better than others. And so by focusing on and rewarding, these are the programs that are getting us better results and these programs are not getting us as good results and then we won't put as much resource into this, you can strengthen. You can strengthen the voluntary programs even beyond where they are today. And, finally, so I conclude, curbs on fossil fuel use will reduce GDP growth. Cap and trade is a particularly costly means to do it. **If we are going to constrain greenhouse gases through compulsory means a carbon tax would be the better way to go**, in my opinion. But curbing GHGs is important and not the sole objective of our country. We have been reducing the carbon intensity of GDP at a rapid rate and I think we are continuing to do that, likely will continue. **Strong R&D program to keep promoting energy efficiency and low carbon fuels, coupled with aggressive capital recover incentives can provide effective tools and will provide effective tools to curb our greenhouse gases**.

CTX Solves Enforcement

Carbon tax easy to implement and calculate

Orszag, 2008

[Director of the CBO, The Congress of the United States, Congressional Budget Office, February, "Policy Options for Reducing CO2 Emissions," CBO Study No. 2930]

Administering an "upstream" tax or cap-and-trade program for CO2 emissions would involve taxing or regulating the suppliers of fossil fuels—such as coal producers, petroleum refiners, and natural gas processors. Compared with a "downstream" design, which would tax or regulate users of fossil fuels, an upstream approach would have two administrative advantages. It would involve regulating a limited number of entities, and it would not require firms to monitor actual emissions. Rather, each firm's tax payment or allowance requirement could be based on the carbon content of its fuel and the amount it sold.³

Carbon tax can just be added onto taxes already paid by the entity

Orszag, 2008

[Director of the CBO, The Congress of the United States, Congressional Budget Office, February, "Policy Options for Reducing CO2 Emissions," CBO Study No. 2930]

An upstream tax may be somewhat easier to implement than an upstream cap-and-trade program because many of the entities that would be covered by either policy are already subject to excise taxes. A CO2 tax could build on that existing structure. Implementing a cap-and-trade program, by contrast, would probably require a new administrative infrastructure. However, the Environmental Protection Agency's experience with the Acid Rain Program (a cap-and-trade program designed to reduce emissions of sulfur dioxide by electricity generators) suggests that the cost of administering such a program could be modest.

CTX Solves Enforcement

Carbon tax would only add to existing tax programs on fossil fuel producers

Orszag, 2008

[Peter, Director of the CBO, The Congress of the United States, Congressional Budget Office, February, "Policy Options for Reducing CO2 Emissions," CBO Study No. 2930]

The cost of implementing **an upstream carbon tax** is likely to be less than that of a cap-and-trade program (regardless of how allowances were initially allocated) because the tax **could build upon an existing infrastructure**. For example, **coal producers already pay an excise tax (which is used to fund the Black Lung Trust Fund) as do producers and importers of petroleum (to fund the Oil Spill Trust Fund). A CO2 tax based on the sales of coal or petroleum would be an additional excise tax and could, presumably, be implemented at a relatively modest incremental cost.** While natural gas is not subject to a federal excise tax, many natural gas processors are subject to a corporate income tax.

CTX Solves Enforcement

Carbon tax is easy to establish and implement – suppliers would bear the brunt of the tax and switch to alternatives to avoid the tax

Komanoff, May 23, 2008

[Charles, energy-policy analyst, transport economist and environmental activist <http://www.carbontax.org/introduction/#why>, Retrieved June 16, 2008]

A carbon tax is a tax on the carbon content of fuels – effectively a tax on the carbon dioxide emissions from burning fossil fuels. Thus, **carbon tax is shorthand for** carbon dioxide tax or **CO2 tax**. **Carbon atoms are present in every fossil fuel — coal, oil and gas**. The bond between hydrogen and carbon atoms is the primary source of energy from fossil fuels and the primary source of the heat released in fuel combustion. Essentially **all carbon atoms are converted to CO2 when the fuel is burned**. Carbon dioxide, an otherwise non-lethal and innocuous gas, rises in the atmosphere and remains resident there, trapping heat re-radiated from Earth’s surface and causing global warming and other harmful climate change. In contrast, non-combustion energy sources — wind, sunlight, falling water, atomic fission — do not convert carbon to carbon dioxide. Accordingly, **a carbon tax** (or CO2 tax) **is effectively a tax on the use of fossil fuels, and only fossil fuels. The carbon content of every form of fossil fuel, from anthracite to lignite coal, from residual oil to natural gas, is precisely known. So is the amount of CO2 released into the atmosphere when the fuel is burned. A carbon tax thus presents few if any problems of documentation or measurement.** As discussed here, **administering a carbon tax should be simple; utilizing existing tax collection mechanisms, the tax would be paid** far “upstream” (e.g., **at the point where fuels are extracted from the Earth and put into the stream of commerce**, or imported into the U.S.). Fuel suppliers and processors would pass along the cost of the tax to the extent that market conditions allow.

CTX Solves Uncertainty

Carbon tax removes uncertainty from the cost of emission reductions

Orszag, 2008

[Peter, Director of the CBO, The Congress of the United States, Congressional Budget Office, February, "Policy Options for Reducing CO2 Emissions," CBO Study No. 2930]

The contrast between constant marginal benefits and rising marginal costs means that **the gap between uncertain costs and benefits is particularly sensitive to the amount of annual emission reductions**. A cap that is too tight will disproportionately increase costs over benefits, and a cap that is not tight enough will disproportionately lower costs relative to benefits. **A tax, by contrast, will tend to hold the costs of emission reductions in line with the constant (although uncertain) expected benefits, encouraging greater emission reductions when costs are low and allowing more emissions when costs are high.**

CTX Solves Uncertainty

Uncertainty of climate change is far worse for business than the impact of the tax

Shapiro and Carey, 2004

[John and Sarah R., *Business Week*, 8/30/04, Pg. 48 Vol. 3897, "Global Warming:"]

Consensus is growing among scientists, governments, and business that they must act fast to combat climate change. **This has already sparked efforts to limit CO2 emissions. Many companies are now preparing for a carbon-constrained world"** **When CEOs contemplate global warming, they see something they dread: uncertainty. There's uncertainty about what regulations they will have to meet and about how much the climate will change -- and uncertainty itself poses challenges.** Insurance giant Swiss Re sees a threat to its entire industry. The reason: Insurers know how to write policies for every conceivable hazard based on exhaustive study of the past. If floods typically occur in a city every 20 years or so, then it's a good bet the trend will continue into the future. Global warming throws all that historical data out the window. One of the predicted consequences of higher greenhouse-gas levels, for instance, is more variable weather. Even a heat wave like the one that gripped Britain in 1995 led to losses of 1.5 billion pounds, Swiss Re calculates. So an increase in droughts, floods, and other events "could be financially devastating," says Christopher Walker, a Swiss Re greenhouse-gas expert. That's why Swiss Re has been pressing companies to plan for possible effects of warming. **Lenders may require beefed-up flood insurance before issuing mortgages. Chipmakers must find replacements for greenhouse-gas solvents. Utilities need to prepare grids to handle bigger loads and to boost power from renewable sources. Oil companies need to think about a future where cars use less gas -- or switch to hydrogen.** Swiss Re says **the word is getting out, but not fast enough.** In a recent survey, **"80% of CEOs said that climate change was a potential risk, but only 40% were doing something about it,"** says Walker. "That's not good to hear for insurers."

CTX Solves Substantial

Plan accounts for all impacts of energy policy

Barret and Hoerner, 2002

[CLEAN ENERGY AND JOBS, James P. Barrett is a senior economist on the Democratic staff of the Joint Economic Committee, U.S. Congress. Prior to that, he was an energy and environmental economist at the Economic Policy Institute in Washington, D.C. He received a Ph.D. in economics from the University of Connecticut. Andrew Hoerner is director of research at the Center for a Sustainable Economy. He has a B.A. in economics from Cornell University and a J.D. from the Case Western Reserve University School of Law. Steve Bernow is director of the energy group and Bill Dougherty is senior scientist at the Tellus Institute. www.epinet.org/studies/cleanenergyandjobs.pdf]

This study assesses the impact of an alternative approach to climate and energy policy. Based on an extensive review of the literature and of the experience of other nations, it attempts to assemble a set of policies that would provide moderate but steady increases in energy efficiency and reductions in carbon emissions, while improving overall economic efficiency. It then estimates the macroeconomic impact of these policies. This alternative policy package has four main elements: • a modest carbon/energy tax on major energy sources, with most of the revenues returned through cuts in taxes on wages; • a set of policies to promote the development of new energy-efficiency and renewable energy technologies; • policies to offset competitive impacts on energy-intensive industries; and • transitional assistance to compensate any workers and communities harmed by the policies. The policy package is self-funding in that the costs of the transition fund as well as the administration of the technology policies are paid entirely by the tax receipts it generates. The package is designed to minimize the burden on workers and consumers and provide help for those who would suffer if energy production were reduced. It is informed by a list of principles adopted by the Just Transition and Market Mechanisms Working Group of the Labor-Environment Dialogue on Climate Change. (See Appendix A for a discussion of these principles.) The package modeled here stands apart from other studies in the U.S. literature in that it attempts to combine the best elements of a market-based approach, policies to promote investment and technology, competitiveness policies, and equity concerns. No previously published U.S. study has conducted a macroeconomic analysis of more than two of the four policy elements analyzed here.³ Indeed, many studies include only the carbon charge without revenue recycling, and *none* of the other elements. This study is also unusual in incorporating the insights of engineering-based analysis of the potential of specific technologies into a macroeconomic model. Technology assumptions are taken primarily from U.S. Department of Energy models and studies.

CTX Solves Spending

No cost to switch to renewable energies, the money paid to the tax will be offset by savings in the long run

Yandle and Buck 2002

[(Bruce, Distinguished Professor of Economics Emeritus, Clemson University AND Stuart Law clerk, Judge Stephen F. Williams, D.C. Circuit Court of Appeals, Bootleggers, Baptists, and the Global Warming Battle, 26 Harv. Envtl. L. Rev. 177]

In a DOE study prepared by the Interlaboratory Working Group on Energy-Efficient and Low-Carbon Technologies, the analysts found **the effects of meeting Kyoto's constraint would hardly be felt.**¹⁶⁸ When the scientific journal *Nature* reported this good news, it indicated **there would be "no net cost in cutting carbon emissions."**¹⁶⁹ The reason: **if the federal government invested "far beyond current efforts" to encourage switching to energy-efficient technologies, payments for energy would go down by between \$ 50 and \$ 90 billion per year.**¹⁷⁰ These **savings,** *Nature* said, **would be enough to offset the costs of switching.**¹⁷¹ Unfortunately, when calculating costs and benefits, the DOE study did not account for the cost of government efforts to bring about these changes, nor did the study account for potential changes in energy prices.¹⁷²

CTX Solves Spending

Your spending arguments are non-unique – high oil prices are essentially a carbon tax in the status quo

Levin, President, Yale University, April 3, 2008

[Richard C., "Greenhouse Gas Emissions and Higher Education" [CQ Congressional Testimony](#)]

But there is an even more convincing refutation of the proposition that fighting global warming is too costly, and it is this: **we have already experienced something that looks very much like a carbon tax, and a very large one.** In fact, **we have demonstrated that we can absorb a carbon tax as high as** the one that Stern's model dictates. In 2002, the price of crude oil averaged \$25 per barrel. Today it is close to \$100 per barrel, an increase of \$75 per barrel. If, counterfactually, the demand for crude oil were perfectly inelastic, **a \$600 per ton tax on carbon**, the tax recommended by Stern in the year 2050, would increase the price of crude oil by about \$70. And of course **demand is not perfectly inelastic, so the actual effect of a carbon tax on the price of oil would be considerably below this level. A carbon tax at the more realistic level proposed by Nordhaus - \$100 by 2050, would increase the price of oil by less than \$12 a barrel.**

CTX Solves Movements

Political action is key to spurring individual and local actions to reduce warming, carbon tax is the best method to do this

McKibben, Middlebury College, 2006

[Bill, scholar in residence at Middlebury College, "How Close to Catastrophe?" October 23, <http://www.zmag.org/znet/viewArticle/2904> download date: 5-19-08]

There's another way of saying what is missing here. **Almost every idea that might bring us a better future would be made much easier if the cost of fossil fuel was higher -- if there was some kind of a tax on carbon emissions that made the price of coal and oil and gas reflect its true environmental cost.** (Gore, in an important speech at New York University last month, proposed scrapping all payroll taxes and replacing them with a levy on carbon.) If that day came -- and it's the day at least envisioned by efforts like the Kyoto Treaty -- then **everything from solar panels to windmills to safe nuclear reactors (if they can be built) would spread much more easily**; the invisible hand would be free to do more interesting work than it's accomplishing at the moment. Perhaps it would actually begin to operate with the speed necessary to head off Lovelock's nightmares. But that will only happen if local, national, and international officials can come together to make it happen, which in turn requires political action. The recent election-driven decision by California governor Arnold Schwarzenegger to embrace a comprehensive set of climate change measures shows that such political action is possible; on the other side of the continent, a Labor Day march across Vermont helped to persuade even the most right-wing of the state's federal candidates to endorse an ambitious program against global warming. The march's final rally drew a thousand people, which makes it possibly the largest global warming protest in the country's history. That's a pathetic fact, but it goes to show how few people are actually needed to begin working toward real change. **The technology we need most badly is the technology of community -- the knowledge about how to cooperate to get things done.** Our sense of community is in disrepair at least in part because **the prosperity that flowed from cheap fossil fuel has allowed us all to become extremely individualized,** even hyperindividualized, in ways that, as we only now begin to understand, represent a truly Faustian bargain. **We Americans haven't needed our neighbors for anything important, and hence neighborliness -- local solidarity -- has disappeared. Our problem now is that there is no way forward, at least if we're serious about preventing the worst ecological nightmares, that doesn't involve working together politically to make changes deep enough and rapid enough to matter. A carbon tax would be a very good place to start.**

CTX vs. Cap and Trade

Carbon taxes better – predictability, immediacy, transparency, lack of opportunity for manipulation or cheating, they address every sector, and the revenue can be recovered from the industries.

Carbon Tax Center, May 14

[<http://www.carbontax.org/>, retrieved June 15, 2008]

CTC regards carbon taxes as superior to carbon cap-and-trade systems **for six fundamental reasons:**

1. **Carbon taxes will lend predictability to energy prices,** whereas cap-and-trade systems will aggravate the **price volatility** that **historically has discouraged investments in less carbon-intensive electricity generation, carbon-reducing energy efficiency and carbon-replacing renewable energy.**
2. **Carbon taxes can be implemented much sooner** than complex cap-and-trade systems. **Because of the urgency of the climate crisis, we do not have the luxury of waiting** while the myriad details of a cap-and-trade system are resolved through lengthy negotiations.
3. **Carbon taxes are transparent and easily understandable, making them more likely to elicit** the necessary public **support** than an opaque and difficult to understand cap-and-trade system.
4. **Carbon taxes can be implemented with far less opportunity for manipulation by special interests,** while a cap-and-trade system's complexity opens it to exploitation by special interests and perverse incentives that can undermine public confidence and undercut its effectiveness.
5. **Carbon taxes address emissions of carbon from every sector,** whereas cap-and-trade systems discussed to date have only targeted the electricity industry, which accounts for less than 40% of emissions.
6. **Carbon tax revenues can be returned to the public through** progressive **tax-shifting,** while the costs of cap-and-trade systems are likely to become a hidden tax as dollars flow to market participants, lawyers and consultants.

CTX Solves Fairness

Carbon tax is imposed on energy companies who will raise prices to offset the tax and pass it along to consumers. Everyone chips in.

Rosenblum, 2007

[Daniel, an environmental attorney and cofounder of the Carbon Tax Center in New York City, Originally Aired: April 11, 2007, News Hour Transcript, PBS, Interview with Ray Suarez, Carbon Tax Aims to Cut Greenhouse Gases, http://www.pbs.org/newshour/bb/environment/jan-june07/climatechange_04-11.html]

RAY SUAREZ: One proposal for reducing greenhouse gases is to tax carbon dioxide emissions. It's often referred to as a carbon tax. How would it work? For that, we turn to Daniel Rosenblum, an environmental attorney and cofounder of the Carbon Tax Center in New York City, a group advocating taxing all CO-2 emissions. And, Daniel Rosenblum, **who would pay it, and how would you impose it?**

DANIEL ROSENBLUM, Carbon Tax Center: **Everybody would pay it. It would be a tax that's imposed on carbon, on the carbon content of fuel. So if you have more carbon content of fuel, like coal, you pay a higher per-BTU price. It will be passed through to the ultimate customers, but it will be imposed at the top of the supply chain. So whenever the refiners or the oil companies sell oil into the pipeline, there will be a tax imposed there. When you take coal out of the ground, it will be taxed as it goes into commerce. The cost will then be passed on to the ultimate consumer. So when I buy electricity, when I buy gas for my car, I'll pay the tax then.**

CTX Solves Consumption

Graduated Carbon Tax solves 50% of all consumption by 2030.

Carbon Tax Center, March 21

[<http://www.carbontax.org/>, retrieved June 15, 2008]

The CTC model divides U.S. fossil-fuel burning into four sectors: electricity, which accounts for 40% of nationwide CO2 emissions; gasoline, accounting for 21%; jet fuel (4%), and other (35%). We apply separate long-run demand price-elasticities — 70% for electricity, 40% for gasoline, 60% for jet fuel, and 50% for other — with further assumptions for supply-side substitution of carbon as well. (All assumptions are detailed in the spreadsheet; users may input their own.) As currently configured, the Hybrid Carbon Tax Model assumes a "10/10 hybrid carbon tax" — \$10 per ton of carbon dioxide (equivalent to roughly \$37 per ton of carbon) plus 10 cents per gallon of gasoline and jet fuel, ramped up every year for 20 years. The model, written in spreadsheet form, may be easily modified by changing a few settings in the Summary worksheet, to correspond to other tax combinations. These may include no combination, i.e., a straight carbon tax (or, for that matter, a tax on gasoline alone). **The model indicates that the 10/10 hybrid carbon tax just outlined, ramped up indefinitely at the annual increase rates of \$10 per ton of carbon dioxide and 10 cents per gallon of gasoline and jet fuel would, by 2030, result in U.S. CO2 emissions falling 50% below current projections for 2030, and 30% below current (2007) levels. U.S. oil consumption would be almost 40% less than projected 2030 levels, and 14% less than current usage.**

CTX Solves Bizcon

Carbon Tax has the least negative impact on businesses and individuals

Orszag, 2008

[Peter, Director of the CBO, The Congress of the United States, Congressional Budget Office, February, "Policy Options for Reducing CO2 Emissions," CBO Study No. 2930]

Relative to a cap-and-trade program with prespecified emission limits each year, **a steadily rising tax could better accommodate cost fluctuations while simultaneously achieving a long-term target for emissions. Such a tax would provide firms with an incentive to undertake more emission reductions when the cost of doing so was relatively low and allow them to reduce emissions less when the cost of doing so was particularly high.** In contrast, an inflexible cap-and-trade program would require that annual caps were met regardless of the cost, thereby failing to take advantage of low-cost opportunities to cut more emissions than were required by the cap and failing to provide firms with leeway in years when costs were higher.

Renewables Add-On

A. Renewables generate jobs and increase exports

Abramavicius, 2002

[The San Diego Union-Tribune, 5/3/02Pg. B-9, Jessica; Abramavicius is campaign director for the California Public Interest Research Group (CALPIRG), a statewide public interest advocacy group, "A chance at intelligent environmental policy"]

Recent studies have shown that **renewable energy provides more jobs and more tax revenues per megawatt than gas-fired power does**. A study done last year by the California Energy Commission and the Electric Power Research Institute determined that **if the state doubled its renewable energy use in the next decade, we would create thousands of new nonpolluting jobs and billions of dollars in new state revenues. We also could attract billions of dollars from burgeoning worldwide clean energy investment markets, which experts estimate will grow from \$6 billion in 2000 to over \$80 billion by the end of the decade**. Great Britain and the state of Illinois recently adopted renewable energy standards to significantly increase the amounts of power they receive from clean sources. **These locales will now become magnets for clean energy investment**, but California could be next. **Add to this that doubling our clean energy use by 2010 would reduce our global warming emissions equal to taking 3.7 million cars off the road**, and it's clear that California would benefit enormously by utilizing our homegrown renewable power resources. **Renewable energy also can help us lessen our dependence on unreliable fossil fuels**. Even before the energy crisis hit in 2000, California was more dependent on gas-fired power than any other state in the nation. In 2000, 90 percent of California's power came from fossil fuels and other unsustainable power sources, and over 95 percent of the power contracts the state is renegotiating are for gas-fired power. **Depending so much on one fuel source sets us up for future energy crises**, as nationwide demand for natural gas skyrockets and the productivity of domestic gas wells declines. By taking advantage of the sun and the wind instead, we can meet growth in energy demand while at the same time diversifying our energy portfolio, thereby decreasing the likelihood of blackouts and price spikes. Sensible and rational solutions to our problems abound, but don't bother looking to Washington, D.C. to find them. **Rather than viewing energy and economic problems as unrelated, we should treat them with a remedy that can heal both**. Now, the onus and opportunity falls to California policy-makers, who can help the economy and solve energy problems by increasing our use of clean energy. **The reason why we're not already utilizing renewable power as much as we could is that there is currently no market for new renewable plants. The utilities would rather do business as usual and continue to contract for new gas-fired power**.

B. Free trade solves nuclear war

Copley News Service '99

[December 1, lexis/nexis]

For decades, many **children** in America and other countries **went to bed fearing annihilation by nuclear war**. The specter of nuclear winter freezing the life out of planet Earth seemed very real. Activists protesting the World Trade Organization's meeting in Seattle apparently have forgotten that threat. The truth is that **nations join together** in groups like the WTO not just **to further their own prosperity, but also to forestall conflict with other nations**. In a way, **our planet has traded in the threat of a worldwide nuclear war for the benefit of cooperative global economics**. Some Seattle protesters clearly fancy themselves to be in the mold of nuclear disarmament or anti-Vietnam War protesters of decades past. But they're not. They're special-interest activists, whether the cause is environmental, labor or paranoia about global government. Actually, most of the demonstrators in Seattle are very much unlike yesterday's peace activists, such as Beatle John Lennon or philosopher Bertrand Russell, the father of the nuclear disarmament movement, both of whom urged people and nations to work together rather than strive against each other. These and other war protesters would probably approve of 135 WTO nations sitting down peacefully to discuss economic issues that in the past might have been settled by bullets and bombs. **As long as nations are trading peacefully, and their economies are built on exports to other countries, they have a major disincentive to wage war**. That's why bringing China, a budding superpower, into the WTO is so important. As exports to the United States and the rest of the world feed Chinese prosperity, and that prosperity increases demand for the goods we produce, the threat of hostility diminishes. Many anti-trade protesters in Seattle claim that only multinational corporations benefit from global trade, and that it's the everyday wage earners who get hurt. That's just plain wrong. First of all, it's not the military-industrial complex benefiting. It's U.S. companies that make high-tech goods. And those companies provide a growing number of jobs for Americans. In San Diego, many people have good jobs at Qualcomm, Solar Turbines and other companies for whom overseas markets are essential. In Seattle, many of the 100,000 people who work at Boeing would lose their livelihoods without world trade. Foreign trade today accounts for 30 percent of our gross domestic product. That's a lot of jobs for everyday workers. **Growing global prosperity has helped counter the specter of nuclear winter. Nations of the world are learning to live and work together**, like the singers of anti-war songs once imagined. **Those who care about world peace shouldn't be protesting world trade. They should be celebrating it**.

Modeling Solvency

US ENERGY POLICY IS MODELLED WORLDWIDE. OUR DECISIONS ARE FOLLOWED

WIRTH, GRAY, & PODESTA 2003

[Timothy is President of the United Nations Foundation, C. Boyden & John, "The Future of energy policy," Foreign Affairs, July-Aug., Pg. 132]

Energy is a common thread weaving through the fabric of critical American interests and global challenges. **U.S. strategic energy policy must take into account** the three central concerns outlined above -- economic security, environmental protection, and poverty alleviation -- **and set aggressive goals for overcoming** them. **Leadership from Washington is critical because the United States is so big, so economically powerful, and so vulnerable to oil shocks and terrorism.** This is a time of opportunity, too -- **a major technological revolution is beginning in energy, with great potential markets. And finally, the reality is that where the United States goes, others will likely follow.** America's example for good or for ill sets the tempo and the direction of action far beyond its borders and far into the future.

Modeling Solvency

US energy leadership key to solving warming – we cannot do it alone

WIRTH, GRAY, & PODESTA 2003

[Timothy is President of the United Nations Foundation, C. Boyden & John, "The Future of energy policy," Foreign Affairs, July-Aug., Pg. 132]

The clearest consequences of increased concentrations of carbon in the atmosphere have now been well documented: rising temperatures and sea levels, altered precipitation patterns, increased storm intensity, and the destruction or migration of important ecosystems. Most unsettling, however, is the growing scientific concern that climatic changes may not happen gradually, as has been commonly assumed. In a recent report, the National Research Council warned: Recent scientific evidence shows that major and widespread climate changes have occurred with startling speed. For example, roughly half the north Atlantic warming since the last ice age was achieved in only a decade. ... Abrupt climate changes were especially common when the climate system was being forced to change most rapidly. Thus, greenhouse warming and other human alterations of the earth system may increase the possibility of large, abrupt, and unwelcome regional or global climatic events. Preventing catastrophic climate change is, at its core, an energy challenge. Globally, fossil fuel production and use accounts for nearly 60 percent of the emissions that are causing the earth's atmospheric greenhouse to trap more heat. In the United States, the number is 85 percent. To avoid worsening the problem, governments around the world would have to take immediate, far-reaching steps: dramatically reducing the burning of fossil fuels, slowing deforestation, altering agricultural practices, and stemming the use of certain chemicals. Because change of this magnitude will take so much time, and because there is so much momentum built into the current rate of carbon release, it will be impossible to hold atmospheric concentrations at the current level of 380 parts per million (which is already one-third higher than preindustrial levels). More realistically, studies for the Intergovernmental Panel on Climate Change suggest that an extremely ambitious program to reduce worldwide carbon emissions by as much as two-thirds by the end of the century will be necessary just to hold the level of accumulated carbon in the earth's atmosphere below 550 parts per million -- roughly double preindustrial levels. Even if this goal is reached, the likely result is that sea levels will rise significantly and species extinction will increase. Because energy consumption is so vital to industrialized economies, the barriers, both economic and political, to developing international agreements on climate change have been very high. Although most countries, including the United States, have ratified the UN Framework Convention on Climate Change, implementation has been much more problematic. The Kyoto Protocol, which seeks to implement the convention, is too modest in its scope and at the same time unrealistically ambitious in its timetable for the United States. It must be supplemented by U.S.-led initiatives that start quickly yet leave sufficient time for the private investment needed to achieve the treaty's objective: stabilization of greenhouse gases in the atmosphere at a safe level. Obviously, Washington cannot hope to attain this goal unless it also engages developing countries, whose greenhouse gas emissions are growing much faster than those of industrialized countries. To help maintain stability in the world's climate system, China, India, Brazil, and others must, as their economies and populations grow, fuel their development with economically competitive clean energy options.

Modelling Solvency

Carbon tax is easily modeled and implemented around the globe

Shapiro, 2007

[Robert J., "Addressing the Risks of Climate Change: The Environmental Effectiveness and Economic Efficiency of Emissions Caps and Tradable Permits, Compared to Carbon Taxes," former U.S. Undersecretary of Commerce for Economic Affairs during the Clinton Administration, February, <http://www.aci-citizenresearch.org/Shapiro.pdf>]

The second important difference is that **uniform, net carbon taxes have generally comparable effects from country to country,** while a global cap-and-trade program usually does not. **When slow growth or mild weather reduces the energy use and emissions of a country or an industry, it will pay less carbon taxes; but in good times or bad times, a uniform net carbon tax will impose comparable costs and provide comparable incentives from country to country to develop and adopt climate-friendly** technologies and strategies. By contrast, a global cap-and-trade system creates a wide range of effects and incentives in countries, depending on the base from which it calculates the emissions targets for each country. Once a cap-and-trade agreement determines that a country's emissions should be reduced by a certain percentage relative to its current emissions or to its emissions in some previous base year, the country may be able to meet its target without taking any steps if its economy slows – or it could take serious measures to reduce emissions and still fail to meet its target because its economy grows faster than normal.

Modeling Solvency

US action will ensure developing country participation in global emissions reductions

Reilly 2003

[Associate Director for Research for Joint Program on the Science and Policy of Global Change, 2003 COLO. J. INTL ENVTL. L. & POLY 117]

Stewart and Wiener correctly claim that **developing country participation is necessary for effective climate policy, and the U.S. Senate's 95-0 vote to reject an agreement that did not substantively involve developing countries** in the months leading up to the Kyoto Protocol **demonstrates the perceived importance of such participation.**¹⁸ Unfortunately, **if the U.S. cannot act first, without developing countries, then the chance of meaningful climate policy seems remote** - we might as well hunker down, move to higher ground, and turn up our air conditioners - because **developing countries are not going to sign on, at least until they see the world's largest emitter take some concrete action**.¹⁹

Modeling Solvency

US action sends a global signal to shift to renewables

Herzog et. al., 2001

[Antonia V. Herzog, Timothy E. Lipman, Jennifer L. Edwards, and Daniel M. Kammen, *Environment*, Vol. 43 No. 10 (December 2001), RENEWABLE ENERGY: A VIABLE CHOICE, http://www.nrel.gov/analysis/seminar/pdfs/2004/ea_seminar_sept_20_2.pdf]

The push to develop renewable and other clean energy technologies is no longer being driven solely by environmental concerns; these technologies **are becoming economically competitive**. According to Merrill Lynch's Robin Batchelor, **the traditional energy sector has lacked appeal to investors in recent years because of heavy regulation, low growth, and a tendency to be cyclical**.¹⁰The United States' lack of support for innovative new companies sends a signal that U.S. energy markets are biased against new entrants. **The clean energy industry could, however, become a world-leading industry akin to that of U.S. semi-conductors and computer systems.** Renewable energy sources have historically had a difficult time breaking into markets that have been dominated by traditional, large-scale, fossil fuel-based systems. This is partly because **renewable and other new energy technologies are only now being mass produced and have previously had high capital costs relative to more conventional systems, but also because coal-, oil-, and gas-powered systems have benefited from a range of subsidies over the years**. These include military expenditures to protect oil exploration and production interests overseas, the costs of railway construction to enable economical delivery of coal to power plants, and a wide range of tax breaks

Warming Advantage – Coral Reefs Add-On

A. Warming destroys coral reefs, causing oceanic biodiversity to disappear

Herbert 2002

[New York Times June 20, 2002, Section A; Column 5; Editorial Desk; Pg. 25, "No Margin for Error," Bob, staff to the NYT]

Global warming is already attacking the world's coral reefs and, if nothing is done soon, could begin a long-term assault on the vast West Antarctic Ice Sheet. If the ice sheet begins to disintegrate, the worldwide consequences over the next several centuries could well be disastrous. **Coral reefs are sometimes called the rain forests of the oceans because of the tremendous variety of animal and plant life that they support. "They're the richest ocean ecosystem, and if they are destroyed or severely damaged, a lot of the biological diversity simply goes away,"** said Dr. Michael Oppenheimer, a professor of geosciences and international affairs at Princeton who is an expert on climate change. Dr. Oppenheimer and Brian C. O'Neill, a professor at Brown, have an article in the current issue of Science magazine that addresses some of the long-term dangers that could result if nothing is done about global warming. One of the things that is not widely understood about the greenhouse gases that are contributing to the warming of the planet is that once they are spewed into the atmosphere, they stay there for centuries, and in some cases, millennia. So a delay of even a decade or so in reducing those emissions can make it much more difficult -- and costly -- to slow the momentum of the warming and avert the more extreme consequences. In their article, Dr. Oppenheimer and Dr. O'Neill suggest that public officials and others trying to determine what levels of global warming would actually be dangerous could use the destruction of the world's coral reefs as one of their guides. **Coral reefs, which are breathtakingly beautiful natural phenomena, tend to thrive in water temperatures that are only slightly below the maximum temperature at which they can survive. There is not much margin for error.** Even allowing for some genetic adaptation, **a sustained increase in water temperatures of as little as a couple of degrees Fahrenheit can result in widespread coral reef destruction in just a few years.** A number of factors are already contributing to the destruction of coral reefs, and global warming is one of them. **As the earth's temperature continues to rise, global warming will most likely become the chief enemy** of what Dr. Oppenheimer calls **"these wonderful sources of biological diversity."**

B. Reefs are an essential life support system necessary for human survival.

Global News Wire, 2002

[Philippine Daily Inquirer "Reefs Under Stress" 12/10/2002, Pg 8]

Coral reefs are the marine equivalent of rainforests that are also **being destroyed at an alarming rate** not only in the Philippines but **all over the world.** The World Conservation Union says **reefs are one of the "essential life support systems" necessary for human survival, homes to huge numbers of animals and plants.** Dr. Helen T. Yap of the Marine Science Institute of the University of the Philippines said that the country's **coral reefs,** together with those of Indonesia and Papua New Guinea, **contain the biggest number of species of plants and animals. "They lie at the center of biodiversity in our planet,"** she said.

Warming Advantage – Disease Add-On

A. Global warming spurs disease spread, collapses the global economy

Steffen et. Al., 2004

[Steffen, Will; Andrae, Meinrat O.; Bolin, Bert; Cox, Peter M.; Crutzen, Paul J.; Cubasch, Ulrich; Held, Hermann; Nakicenovic, Nebojsa; Scholes, Robert J.; Talaue-McManus, Liana; Turner, B.L., II, Environment, April 1, 2004, Pg. 8(13) Vol. 46 No. 3 ISSN: 0013-9157, "Abrupt changes: the Achilles' heels of the Earth System."]

Warmer and wetter conditions as a result of climate change may also facilitate the spread of diseases. Malnutrition, poverty, and inadequate public health systems in many developing countries provide large populations that are immune compromised with few immunological and institutional defenses against the spread of an aggressive infectious disease. An event similar to the 1918 Spanish Flu pandemic, which is thought to have killed 20-40 million people worldwide, could now result in more than 100 million deaths within a single year. (34) Such a catastrophic event, the possibility of which is being seriously considered by the epidemiological community, would probably lead to severe economic disruption and possibly even rapid collapse in a world economy dependent on fast global exchange of goods and services.

B. Disease spread ends in extinction

The Boston Globe '95

[June 18, 1995, Pg. 62, "Plagued planet"]

But these diseases learned to mutate and become drug-resistant. Today, according to The Economist magazine, 90 percent of staph infections have become resistant to penicillin. Mutating, drug-resistant tuberculosis, taking advantage of deteriorating immune systems, has become the handmaiden of AIDS. The ability of diseases to switch back and forth between animals and man is not new. In 1918 an influenza pandemic born of swine killed 20 million people. Modern flus, although less dangerous, race around the world periodically, usually originating in rural China, where people live close to their pigs in an environment where flu viruses can jump from animals to humans and back. The true terror will come if and when viruses like AIDS and Ebola find a way to become airborne like flu. Modern air travel has made these diseases almost impossible to isolate. The potential for a disease that kills not 20 million, but 90 percent of the world's population, is the ultimate environmental horror.

Warming Advantage – Biodiversity Add-On

A. Global warming can lead to massive biodiversity loss within 4 years and destruction of the stratosphere

ANSA English Media Service 2004

(June 7, "ENVIRONMENT: GLOBAL WARMING THREAT TO BIODIVERSITY")

Global warming is the greatest threat to biodiversity and could cause the gradual extinction of a quarter of the Earth's plants and animals, according to a study by Britain's Leeds University. The study was carried out in six areas across the world, representative in terms of biodiversity. **Between 15 percent and 37 percent of all species living in the six areas could perish within three or four years in case of any serious climate change which could cause the extinction of some one million species if spilled over in the whole world.** What is even more alarming is that the temperature on the North and the South poles is rising three times as fast as it should. Even a minor three-degree Celsius rise in the average Earth temperature could reduce the ice in the Greenland Sea and affect negatively the Ogden Feature, the tongue of ice which acts like a water pump driving currents in the North Atlantic, but has failed to do so for several years in succession. **Global warming which,** according to the United Nations Intergovernmental Panel on Climate Change (IPCC), **will have negative effects also on more inner ice layers, speeds up the decomposition of ozone in the stratosphere, the atmospheric layer between the troposphere and the mesosphere, which also protects plankton. This phenomenon will on one hand deprive innumerable sea species of their primary food** and on the other reduce the oceans' capacity to absorb carbon dioxide.

B. Loss of Biodiversity leads to planetary extinction

Diner 1994

{Major David N., Judge Advocate General's Corps, United States Army, Military Law Review, Winter}

Biologically diverse ecosystems are characterized by a large number of specialist species, filling narrow ecological niches. These ecosystems inherently are more stable than less diverse systems. "The more complex the ecosystem, the more successfully it can resist stress...**Like a net, in which each knot is connected to others by several strands, such a fabric can resist collapse better than a simple, unbranched circle of threads – which if cut anywhere breaks down as a whole.**" **By causing widespread extinctions, humans have artificially simplified many ecosystems. As biologic simplicity increases, so does the risk of ecosystem failure.** The spreading Sahara Desert in Africa, and the dustbowl conditions of the 1930s in the United States are relatively mild examples of what might be expected if this trend continues. Theoretically, **each new animal or plant extinction,** with all its dimly perceived and intertwined affects, **could cause total ecosystem collapse and human extinction. Each new extinction increases the risk of disaster. Like a mechanic removing, one by one, the rivets from an aircraft's wings, humankind may be edging closer to the abyss.**

Warming Advantage – Rainforest Add-On

A. Warming will destroy rainforests

Lean 2005

[Geoffrey, 2/6/2005, The Independent on Sunday, Pg. 10,11, SPECIAL REPORT: GLOBAL WARMING: APOCALYPSE NOW: HOW MANKIND IS SLEEPWALKING TO THE END OF THE EARTH; FLOODS, STORMS AND DROUGHTS. MELTING ARCTIC ICE, SHRINKING GLACIERS]

What could happen? **Famously wet tropical forests, such as those in the Amazon, go up in flames, destroying the world's richest wildlife habitats and releasing vast amounts of carbon dioxide to speed global warming.** How would this come about? Britain's Met Office predicted in 1999 that **much of the Amazon will dry out and die within 50 years, making it ready for sparks** - from humans or lightning - **to set it ablaze.** How likely is it? Very, if the predictions turn out to be right. **Already there have been massive forest fires in Borneo and Amazonia,** casting palls of highly polluting smoke over vast areas.

B. Rainforests are the earth's lungs: human survival is at stake

Chiang, 2004

staff, Science World, 4/26/2004 Pg. 8(7) Vol. 60 No. 13 ISSN: 1041-1410

What if humans destroy all the world's rain forests? We're not sure what would happen. **Rain forests are like giant lungs: The trees absorb large amounts of carbon dioxide** [heat-trapping gas that contributes to global warming] **from the air and "exhale" a huge quantity of oxygen. Rain forests are** also important **water recyclers: They soak up moisture and send water vapor back into the atmosphere. Without rain forests, Earth's heat and water cycle would be damaged,** affecting global climate. **Humans may not be able to cope with the change.**

Warming Advantage – Now Key Time

We are at the breaking point- must take action to stop warming now or risk extinction – even a 1 degree change in temperature could lead to runaway warming

Engelhardt, 05

("Mired in Denial, Lost in the Present Dropping in on the Apocalypse by Tom Engelhardt February 07, 2005 " <http://www.zmag.org/content/showarticle.cfm?ItemID=7193>)

In a new study published in the prestigious British scientific journal Nature, to take but one recent example, **researchers from some of Britain's leading universities used computer modeling to predict that global warming might prove "twice as catastrophic as previously thought,** flooding settlements on the British coast and turning the interior into an unrecognizable tropical landscape." **The Earth,** the study found, **was "far more sensitive to increases in man-made greenhouse gases than previously realized."** The study's worst-case scenario, **a rise in average global temperatures 11C** greater than today, according to Professor Bob Spicer, of the Open University, **would be "unprecedented** in the long geological record of the Earth. "If we go back to the Cretaceous, which is 100 million years ago, the best estimates of the global mean temperature was about 6C higher than present." Or what about the new report, "Meeting the Climate Challenge," just issued by the International Climate Change Task Force, co-chaired by a Tony Blair confidant, Stephan Byers, and U.S. Senator Olympia Snowe of Maine: "The countdown to climate-change catastrophe is spelt out by a task force of senior politicians, business leaders and academics from around the world -- and it is remarkably brief. **In as little as 10 years, or even less,** their report indicates, **the point of no return with global warming may have been reached... And it breaks new ground by putting a figure -- for the first time in such a high-level document -- on the danger point of global warming, that is, the temperature rise beyond which the world would be irretrievably committed to disastrous changes. These could include widespread agricultural failure, water shortages and major droughts, increased disease, sea-level rise and the death of forests -- with the added possibility of abrupt catastrophic events such as 'runaway' global warming, the melting of the Greenland ice sheet, or the switching-off of the Gulf Stream.**"The report says this point will be two degrees centigrade above the average world temperature prevailing in 1750 before the industrial revolution, when human activities -- mainly the production of waste gases such as carbon dioxide (CO₂), which retain the sun's heat in the atmosphere -- first started to affect the climate. But it points out that global average temperature has already risen by 0.8 degrees since then, with more rises already in the pipeline -- so **the world has little more than a single degree of temperature latitude before the crucial point is reached.**

Warming Advantage – Now Key Time

Warming is occurring - the only question should be what should we do about it

Fox 2005

[February 18, 2005 4:45 PM Studies confirm global warming underway By Maggie Fox, Health and Science Correspondent
<http://www.swissinfo.org/sen/swissinfo.html?siteSect=143&sid=5548239>]

A parcel of studies looking at the oceans and melting Arctic ice leave no room for doubt that it is getting warmer, people are to blame, and the weather is going to suffer, climate experts say. New computer models that look at ocean temperatures instead of the atmosphere show the clearest signal yet that global warming is well underway, said Tim Barnett of the Scripps Institution of Oceanography. Speaking at an annual meeting of the American Association for the Advancement of Science, Barnett said on Thursday **climate models based on air temperatures are weak because most of the evidence for global warming is not even there. "The real place to look is in the ocean,"** Barnett told a news conference. His team used millions of temperature readings made by the U.S. National Oceanic and Atmospheric Administration to calculate steady ocean warming. **"The debate over whether or not there is a global warming signal is now over, at least for rational people,"** he said. The report was published one day after the United Nations Kyoto Protocol took effect, a 141-nation environmental pact the United States government has spurned for several reasons, including stated doubts about whether global warming is occurring and is caused by people. Barnett urged U.S. officials to reconsider. **"Could a climate system simply do this on its own? The answer is clearly no,"** Barnett said. His team used U.S. government models of solar warming and volcanic warming, just to see if they could account for the measurements they made. "Not a chance," he said. **And the effects will be felt far and wide.** "Anywhere that the major water source is fed by snow ... or glacial melt," he said. **The debate is what are we going to do about it."**

Warming Advantage – Now Key Time

Must act to stop warming immediately, any number of changes due to warming could tip the climate balance over the edge into runaway warming – will kill 97% of humans

McKibben, 2006

[Bill, scholar in residence at Middlebury College, "How Close to Catastrophe?" October 23, <http://www.zmag.org/znet/viewArticle/2904>]

This homeostasis is now being disrupted by **our brief binge of fossil fuel consumption**, which **has released a huge amount of carbon dioxide into the atmosphere. Indeed,** at one point Lovelock predicts -- more gloomily than any other competent observer I am aware of -- that we have already pushed the planet over the brink, and that **we will soon see remarkably rapid rises in temperature, well beyond those envisioned in most of the computer models now in use** -- themselves quite dire. He argues that **because the earth is already struggling to keep itself cool, our extra increment of heat is particularly dangerous,** and he predicts that **we will soon see the confluence of several phenomena:** the death of ocean algae in ever-warmer ocean waters, reducing the rate at which these small plants can remove carbon from the atmosphere; the death of tropical forests as a result of higher temperatures and the higher rates of evaporation they cause; sharp changes in the earth's "albedo," or reflectivity, as white ice that reflects sunlight back out into space is replaced with the absorptive blue of seawater or the dark green of high-latitude boreal forests; and the release of large amounts of methane, itself a greenhouse gas, held in ice crystals in the frozen north or beneath the sea. **Some or all of these processes will be enough,** Lovelock estimates, **to tip the earth into a catastrophically hotter state, perhaps eight degrees centigrade warmer** in temperate regions like ours, over the course of a very few decades, **and that heat will in turn make life as we know it nearly impossible in many places.** Indeed, in the photo section of the book there is one picture of a red desert captioned simply "Mars now -- and what the earth will look like eventually." **Human beings,** a hardy species, **will not perish entirely,** he says; in interviews during his book tour, Lovelock has predicted that about 200 million people, or **about one thirtieth of the current world population, will survive if competent leaders make a new home for us near the present-day Arctic.** There may also be other survivable spots, like the British Isles, though he notes that rising sea levels will render them more an archipelago. In any event, he predicts that **"teeming billions" will perish.**

Warming Advantage – Now Key Time

We are running out of time, without massive policy shift – warming will end civilization

McKibben, 2006

[Bill, scholar in residence at Middlebury College, "How Close to Catastrophe?" October 23,
<http://www.zmag.org/znet/viewArticle/2904>]

Hansen is not quite as gloomy as Lovelock. Although he recently stated that the Earth is very close to the hottest it has been in a million years, he said that **we still have until 2015 to reverse the flow of carbon into the atmosphere before we cross a threshold and create a "different planet."** When Hansen gave this warning last December we had ten years to change course, but **soon we'll have only nine years, and since nothing has happened in the intervening time to suggest that we're gearing up for an all-out effort to reduce greenhouse gas emissions,** the divergence between Hansen and Lovelock may be academic. (Somehow it's small comfort to be rooting for the guy who says you've got a decade.) What's amazing is that even Al Gore's fine and frightening film An Inconvenient Truth now lags behind the scientific cutting edge on this issue -- the **science is moving fast. It's true that the world is beginning slowly to awaken to the idea that global warming may be a real problem, and legislatures (though not ours) are starting to nibble at it. But very few understand with any real depth that a wave large enough to break civilization is forming, and that the only real question is whether we can do anything** at all to weaken its force.

Warming Advantage – Warming Now

Records, soil cores, and tree ring data confirm the global warming models predictions of warming:

Columbus Dispatch, 2004

[March 16, 2004; Pg. 06A, "2003 SUMMER IN EUROPE LIKELY HOTTEST SINCE 1500"]

Last year's deadly summer in Europe probably **was the hottest** on the continent **in at least five centuries**, according to researchers who analyzed old records, soil cores and other evidence. Researchers at the University of Bern, Switzerland, collected and analyzed temperature data from all over Europe, including such climate measures as tree rings from 1500. They found that **the climate has been generally warming and last summer -- when the** scorching **heat killed more than 19,000 -- was the most torrid of all.** Researchers said the study showed that European winters are also warmer now. The average winter and annual temperatures during the three decades from 1973 to 2002 were the highest of the half millennium, they said. Some climatologists say **the new study agrees with models that have predicted a steady rise in global temperature as a result of the greenhouse effect.**

Warming Advantage – Warming Now

Antarctic ice melts prove that we are warming now

Gelbspan 2005

(People's Ratification Of The Kyoto Global Warming Treaty by Ross Gelbspan February 17, 2005 Grist Magazine
<http://www.zmag.org/content/showarticle.cfm?SectionID=56&ItemID=7266>)

As if on cue, about a week later, **researchers with the British Antarctic Survey reported that the massive West Antarctic ice sheet may already have begun to collapse.** Citing recently discovered increased glacial flows into the Antarctic Ocean, Chris Rapley, head of the survey, noted: "**The last IPCC report characterized Antarctica as a slumbering giant in terms of climate change. I would say it is now an awakened giant.**" Also in late January, Britain's Hadley Center for Climate Prediction and Research released giant computer models created by the combined power of more than 95,000 computers in 150 countries. The **models dramatically increased the estimate of future warming from between 4 and 10 degrees Fahrenheit to as much as 20 degrees Fahrenheit. "The danger zone is not something we are going to reach in the middle of this century."** said the center's Myles Allen. "**We are in it now.**"

Warming Advantage – Warming Now

Global warming is happening at an unprecedented rate- the full impacts will be felt within the next 20 years

Lautenberg, U.S. Senator, '04

(Frank, US Senator-NJ, Senate Committee on Commerce, Science and Transportation, "U.S. SENATOR JOHN MCCAIN (R-AZ) HOLDS HEARING ON CLIMATE CHANGE," May 6 1/n)

New reports in **scientific updates on the impacts of climate change continue to provide fresh evidence that our world is undergoing a dramatic shift in its temperature and that human activities are mainly responsible**. The Pentagon's report on climate change which was disclosed last February described some of the very frightening potential scenarios. **These could play out in the event of an abrupt climate change**, kind of going over the cliff, which scientists tell us could happen. Over the next 20 years, for instance, **we could experience unprecedented droughts, famine, riots and wars of survival**. Last summer, 35,000 people died during the heatwave that enveloped Europe. It was the hottest summer there in five centuries, but such deterioration of society does not have to happen. **With America's capacity to innovate, our wealth, our technological expertise, we could be leading the world effort to reduce greenhouse gas emissions instead of lagging behind**. Frankly, our unwillingness to take action is an international embarrassment. Striking events are occurring that cannot be ignored, events such as last October's breakup of the Arctic's largest ice shelf, the Ward Hunt ice shelf. It had been unchanged for 3,000 years and then broke into two pieces after having lost 90 percent of its mass in less than a century. Since 1950, the average thickness of Arctic ice has decreased by a staggering 40 percent. No doubt, more ice shelf breakups can be expected. **Ocean levels around the globe have risen four to eight inches in the 20th century**, and are expected to rise another four to thirty-five inches this century. For my home state of New Jersey, 127-mile shoreline, that could be catastrophic. According to the Environmental Protection Agency, the sea level along the New Jersey shoreline has been rising at 15 inches a century, at least twice the global average. Understand this, **it is likely to rise another 27 inches by the end of the 21st century**. I hate to imagine what would happen to my state's population and our economy if that rise in sea level continues as expected.

Warming Advantage – Flaring → Warming

Flaring/Venting leads to massive warming- every effort should be taken to stop it

Leveen 05

(MS degree in chemical engineering from Iowa State University of Science and Technology, Hydrocarbon Processing, “What to do when you have gas” January 1, 2005 l/n)

On a pound-for-pound basis, **methane has 21 times the greenhouse effect of carbon dioxide.** Therefore, as **combustion produces** only **2.75 lb of carbon dioxide for each pound of methane flared,** flaring is 7.6 times more preferable than venting from a greenhouse point of view. Of course, **every effort should be made to capture and use the natural gas as opposed to venting or flaring.**

Warming Advantage – GHG → Warming

Oceanic research and model comparisons prove that greenhouse gases are the cause of warming

Henderson 2005

(World News February 18, 2005 New proof that man has caused global warming From Mark Henderson, Science Correspondent, in Washington" <http://www.timesonline.co.uk/article/0,,3-1489955,00.html>)

In the study, **Dr Barnett's team examined more than seven million observations of temperature, salinity and other variables in the world's oceans**, collected by the US National Oceanic and Atmospheric Administration, **and compared the patterns with those that are predicted by computer models of various potential causes of climate change**. It found that **natural variation in the Earth's climate**, or changes in solar activity or volcanic eruptions, which have been suggested as alternative explanations for rising temperatures, **could not explain the data collected in the real world. Models based on man-made emissions of greenhouse gases, however, matched the observations almost precisely.**

Warming Advantage – Positive Feedbacks

Multiple positive feedback loops will accelerate warming to unstoppable levels- we must act now

Meacher, 2004

[Michael, former environment secretary for Oldham, Manchester Guardian Weekly, April 24, 2004; Vol. 170, No. 20; Pg. 18, "Apocalypse soon"]

But that is not the end of the story. A conference of top climate scientists concluded last year that **previous models had underestimated the cooling effect of smoke and other particles in the atmosphere**, so that **if it hadn't been for the haze from forest fires and coal-burning power stations, the world would have warmed up three times more** than the 0.6C rise actually experienced. **Now that smoke pollution is in decline, mainly due to efforts to tackle acid rain, the scientists calculate that global warming could rise by 7C-10C** this century. That would be without precedent in recorded geological history. Yet it **could still be intensified by two more factors. One is the die-back of the drought-stricken Amazon forests in the second half of this century**, as predicted by the UK Hadley Centre, **which would release all their locked-up carbon into the atmosphere, raising global warming by another 1.5C**. But **the most frightening scenario is a feedback effect whereby fast-rising temperatures unlock other global warming sources -- notably vast quantities of methane in the oceans, equal to more than double the world's fossil-fuel reserves -- which could trigger an unstoppable heating-up**.

Warming Advantage – Coral Reefs

Long term studies show that rising sea temperatures will kill 95% of coral on existing reefs

Sands 2004

[Neil, Agence France Presse, 2/21/04 "Great Barrier Reef corals mostly dead by 2050, says Australian study"]

Authors Hans and Ove Hoegh-Guldberg -- the **head of Queensland University's marine studies centre and his economist father -- spent two years examining the effects of rising sea temperature on the reef** for Queensland tourism authorities and the World Wildlife Fund for Nature (WWF). Their 350-page report found no prospect of avoiding the "chilling long-term eventualities" of coral bleaching because greenhouse gases were already warming the seas as part of a process it said would take decades to stop. **"Coral cover will decrease to less than five percent on most reefs by the middle of the century under even the most favourable assumptions," the report said. "This is the only plausible conclusion if sea temperatures continue to rise." Warmer sea waters make corals suffer thermal stress, eventually making them bleach and die.** The report said **this could occur if temperatures increased by as little as one degree centigrade, well below the two to six degrees water temperatures around the reef are expected to rise by over the next century.** "There is no evidence that corals can adapt fast enough to match even the lower projected temperature rise," it found. Organisms reliant on coral would become rare or even face extinction, the report said.

Warming Advantage – Oceans

Warming making the oceans acidic – destroying coral reefs and causing irreversible harm to the ocean life cycle

Lean 2005

[Geoffrey, 2/6/2005, The Independent on Sunday, Pg. 10,11, SPECIAL REPORT: GLOBAL WARMING: APOCALYPSE NOW: HOW MANKIND IS SLEEPWALKING TO THE END OF THE EARTH; FLOODS, STORMS AND DROUGHTS. MELTING ARCTIC ICE, SHRINKING GLACIERS]

What could happen? **The seas will gradually turn more and more acid. Coral reefs, shellfish and plankton, on which all life depends, will die off. Much of the life of the oceans will become extinct.** How would this come about? **The oceans have absorbed half the carbon dioxide, the main cause of global warming, so far emitted by humanity. This forms dilute carbonic acid, which attacks corals and shells.** How likely is it? It is already starting. Scientists warn that **the chemistry of the oceans is changing in ways unprecedented for 20 million years.** Some predict that **the world's coral reefs will die within 35 years**

Warming Advantage - → ME Conflict

Warming causes water wars in the Middle East

Lean 2005

[Geoffrey, 2/6/2005, The Independent on Sunday, Pg. 10,11, SPECIAL REPORT: GLOBAL WARMING: APOCALYPSE NOW: HOW MANKIND IS SLEEPWALKING TO THE END OF THE EARTH; FLOODS, STORMS AND DROUGHTS. MELTING ARCTIC ICE, SHRINKING GLACIERS]

What could happen? **Wars break out over diminishing water resources as populations grow and rains fail.**
How would this come about? **Over 25 per cent more people than at present are expected to live in countries where water is scarce in the future, and global warming will make it worse.** How likely is it? Former UN chief Boutros Boutros-Ghali has long said that **the next Middle East war will be fought for water, not oil.**

Warming Advantage – Resource Wars Impact

Warming brings scarcity in resources, resulting in multi-polarity and a rash of never-ending global conflicts

Stipp '04

[David, staff writer, Fortune, Feb 9, Pg. 100, The Pentagon's Weather Nightmare; The climate could change radically, and fast. That would be the mother of all national security issues]

As the decade progresses, **pressures to act become irresistible --history shows that whenever humans have faced a choice between starving or raiding, they raid.** Imagine Eastern European countries, struggling to feed their populations, invading Russia--which is weakened by a population that is already in decline--for access to its minerals and energy supplies. Or picture Japan eyeing nearby Russian oil and gas reserves to power desalination plants and energy-intensive farming. Envision nuclear-armed Pakistan, India, and China skirmishing at their borders over refugees, access to shared rivers, and arable land. Or Spain and Portugal fighting over fishing rights--fisheries are disrupted around the world as water temperatures change, causing fish to migrate to new habitats. Growing tensions engender novel alliances. Canada joins fortress America in a North American bloc. (Alternatively, Canada may seek to keep its abundant hydropower for itself, straining its ties with the energy-hungry U.S.) North and South Korea align to create a technically savvy, nuclear-armed entity. Europe forms a truly unified bloc to curb its immigration problems and protect against aggressors. Russia, threatened by impoverished neighbors in dire straits, may join the European bloc. Nuclear arms proliferation is inevitable. **Oil supplies are stretched thin as climate cooling drives up demand. Many countries seek to shore up their energy supplies with nuclear energy, accelerating nuclear proliferation. Japan, South Korea, and Germany develop nuclear-weapons capabilities, as do Iran, Egypt, and North Korea. Israel, China, India, and Pakistan also are poised to use the bomb. The changes relentlessly hammer the world's "carrying capacity"--the natural resources, social organizations, and economic networks that support the population. Technological progress and market forces, which have long helped boost Earth's carrying capacity, can do little to offset the crisis--it is too widespread and unfolds too fast.** As the planet's carrying capacity shrinks, **an ancient pattern reemerges: the eruption of desperate, all-out wars over food, water, and energy supplies.** As Harvard archeologist Steven LeBlanc has noted, wars over resources were the norm until about three centuries ago. **When such conflicts broke out, 25% of a population's adult males usually died. As abrupt climate change hits home, warfare may again come to define human life.**

Warming Advantage – Extinction

Impact to warming is extinction

Henderson, 2k6

[Bill, countercurrents.org, August 19, <online> <http://www.countercurrents.org/cc-henderson190806.htm>]

The scientific debate about human induced global warming is over but policy makers - let alone the happily shopping general public - still seem to not understand the scope of the impending tragedy. Global warming isn't just warmer temperatures, heat waves, melting ice and threatened polar bears. **Scientific understanding increasingly points to runaway global warming leading to human extinction.** If impossibly Draconian security measures are not immediately put in place to keep further emissions of greenhouse gases out of the atmosphere we are looking at the death of billions, the end of civilization as we know it and in all probability the end of man's several million year old existence, along with the extinction of most flora and fauna beloved to man in the world we share. **Runaway global warming: there are 'carbon bombs': carbon in soils, carbon in warming temperate and boreal forests and in a drought struck Amazon, methane in Arctic peat bogs and in methane hydrates melting in warming ocean waters. For several decades it has been hypothesized that rising temperatures** from increased greenhouse gases in the atmosphere due to burning fossil fuels **could be releasing some of and eventually all of these stored carbon stocks to add substantially more potent greenhouse gases to the atmosphere..** Given time lags of 30-50 years, we might have already put enough extra greenhouse gases into the atmosphere to have crossed a threshold to these bombs exploding, their released **greenhouse gases leading to ever accelerating global warming with future global temperatures maybe tens of degrees higher than our norms of human habitation and therefor extinction or very near extinction of humanity.**

Oceans Advantage – Flaring Add-On

A. Offshore flaring leads to massive marine ecological damage

Patin, 99

(prominent Russian specialist on environmental problems of the ocean, Waste discharges during the offshore oil and gas activity by Stanislav Patin, translation by Elena Cascio based on "Environmental Impact of the Offshore Oil and Gas Industry", <http://www.offshore-environment.com/discharges.html>)

In spite of the fact that some countries now prohibit **flaring of oil-associated gases, it remains one of the major sources of atmospheric emissions in the world. These gases are dissolved in the crude produced oil.**

As the pressure goes down, they bubble out in amounts up to 300 m³ for each ton of extracted oil. **The associated gases give about 30% of the gross world production of gaseous hydrocarbons.** However, because of the undeveloped technology and lack of required capacities and equipment on many field developments, **up to 25% of all associated gases are flared.** In Russia alone, the volumes of annually burned (flared) oil-associated gases reach up to 10-17 billion cubic meters [VNIIP, 1994]. Astronauts have witnessed that the view of the gas-burning torches, for example above Western Siberia or the Persian Gulf, is an impressive proof of the large scale of human economic activity and, we would add, of its bad management as well. **Components of atmospheric pollution caused by oil and gas development include gaseous products of hydrocarbon evaporation and burning as well as aerosol particles of the unburned fuel.** From the ecological perspective, **the most hazardous components are nitrogen and sulfur oxides, carbon monoxide, and the products of the incomplete burning of hydrocarbons.** These interact with atmospheric moisture, transform under the influence of solar radiation, and precipitate onto the land and sea surfaces to form fields of local and regional pollution. **Clear evidence of the impact of atmospheric emissions on the marine environment from the offshore flaring was found,** in particular, during well testing in the Canadian zone of the Beaufort Sea. Here, **the ice surface around the test site where intensive flaring of combustible wastes occurred was polluted by atmospheric fallout of heavy oily residue.** The chemical composition of the residue was similar to one of the higher-molecular-weight fractions of produced oil [GESAMP, 1993]. According to some estimates [Kingston, 1991], **up to 30% of the hydrocarbons emitted into the atmosphere during well testing precipitate onto the sea surface and create distinctive and relatively unstable slicks around the offshore installations.** The results of the aircraft **observations** in the North Sea **indicate that such slicks are found with an average frequency of 1-2 cases per every hour of flight** [ICES, 1995]. Technical means to rectify and prevent atmospheric pollution during offshore oil and gas production are practically identical to the analogous methods that are widely and often effectively used on land and in other industries. However, offshore atmospheric emissions thus far have not gotten the deserved attention, probably due to the remoteness of these developments from densely populated places.

B. Flaring leads to extinction from ozone depletion

Osai 02

(A Niger Deltan Denounces Shell's False Public Relations in Its Community Outreach In Niger Delta "SHELL AS AGAMA LIZARD BY JASON OSAI Professor Jason Osai, formerly of the Faculty of the Social Sciences of the University of Port Harcourt, in Nigeria's Niger Delta, is currently with the Rivers State of Arts & Science, Port Harcourt" <http://www.waado.org/Environment/OilCompanies/Shell-Communities/ShellFalsePR.html> Sunday, March 17, 2002)

Talking of **the impact of gas flaring on the environment**, in 1984/85, I was part of a team of professors and graduate students from the Faculty of Social Sciences of the University of Port Harcourt that undertook a field trip to what is now called the Orashi Region. I guided the team to the gas flare site at Obagi, Obrikom, Ebocha, Ukwugba and Izombe. From one site to another, we took sample of cassava and other crops; **we observed the plantains, palm trees and the general vegetation within a certain radius of the gas flared racks and we noted that though the cassava stems and leaves looked unaffected, their tubers were rotten. We also observed a pathetic degeneration from the lush vegetation with giant trees that used to be a rustic meadow; giant racks, spewing roaring flames into the sky had taken the place of the giant trees.** These findings were published in Newswatch. It is, therefore, an insult on the collective intellect of the peoples of the Niger Delta for Shell to aver that "gas flaring is not detrimental to the immediate environment." Matter-of-factly, the statement is an insult on the collective intellect of **humanity, which is facing imminent extinction as a result of the depletion of the ozone layer - a phenomenon that gas flaring contributes immensely to.** Incidentally, I did my administrative

internship in 1977 at the Cleveland Division of Air Pollution Control, Cleveland, Ohio, USA and I think I learned quite a bit about pollution and its negative impact on the environment - immediate or otherwise.

Oceans Advantage – Acidity Increasing

Oceans are becoming more acidic due to fossil fuel use

Elperin, 2006

<http://www.washingtonpost.com/wp-dyn/content/article/2006/07/04/AR2006070400772.html>"Growing Acidity of Oceans May Kill Corals," Washington Post, Juliet Eilperin, Washington Post Staff Writer, Wednesday, July 5, 2006; Page A01

The escalating level of carbon dioxide in the atmosphere is making the world's oceans more acidic, government and independent scientists say. They warn that, by the end of the century, the trend could decimate coral reefs and creatures that underpin the sea's food web. Although scientists and some politicians have just begun to focus on the question of ocean acidification, they describe it as one of the most pressing environmental threats facing Earth. **"It's just been an absolute time bomb that's gone off both in the scientific community and, ultimately, in our public policymaking,"** said Rep. Jay Inslee (D-Wash.), who received a two-hour briefing on the subject in May with five other House members. **"It's another example of when you put gigatons of carbon dioxide into the atmosphere, you have these results none of us would have predicted."** Thomas E. Lovejoy, president of the H. John Heinz III Center for Science, Economics and the Environment, has just rewritten the paperback edition of "Climate Change and Biodiversity," his latest book, to highlight the threat of ocean acidification. "It's the single most profound environmental change I've learned about in my entire career," he said last week. A coalition of federal and university scientists is to issue a report today describing how **carbon dioxide emissions are,** in the words of a press release from the National Center for Atmospheric Research and the National Oceanic and Atmospheric Administration, **dramatically altering ocean chemistry and threatening corals and other marine organisms that secrete skeletal structures.** For decades, scientists have viewed the oceans' absorption of carbon dioxide as an environmental plus, because it mitigates the effects of global warming. **But by taking up one-third of the atmosphere's carbon dioxide** -- much of which stems from exhaust from automobiles, power plants and other industrial sources -- **oceans are transforming their pH level.** The pH level, measured in "units," is a calculation of the balance of a liquid's acidity and its alkalinity. The lower a liquid's pH number, the higher its acidity; the higher the number, the more alkaline it is. The pH level for the world's oceans was stable between 1000 and 1800, but has dropped one-tenth of a unit since the Industrial Revolution, according to Christopher Langdon, a University of Miami marine biology professor. **Scientists expect ocean pH levels to drop by another 0.3 units by 2100, which could seriously damage marine creatures that need calcium carbonate to build their shells and skeletons.** Once absorbed in seawater, carbon dioxide forms carbonic acid and lowers ocean pH, making it harder for corals, plankton and tiny marine snails (called pteropods) to form their body parts.

Oceans Advantage – Fossil Fuels → Acidity

Fossil Fuel driven ocean acidity is threatening oceanic food chains and biodiversity

Vergano, 2006

[USA TODAY, http://www.usatoday.com/tech/science/2006-07-05-ocean-acidity_x.htm]

Corals and shelled sea creatures face an uncertain future in oceans made increasingly corrosive by the industrial emissions that fuel global warming, a government report warned Wednesday. Human activities, chiefly the burning of fossil fuels, have upset a natural balance in ocean acidity, concludes the report called *Impacts of Ocean Acidification on Coral Reefs and Other Marine Calcifiers: A Guide for Future Research*. From corals to sea snails to microscopic plankton, **the creatures affected underpin many ocean food chains,** say the authors of the report, a document reflecting the views of 50 top experts in ocean chemistry. The research was sponsored by the National Oceanic and Atmospheric Administration (NOAA) and other federal agencies. **"We have very clear evidence, and there is no doubt this is occurring,"** says report co-author Richard Feely of the NOAA Pacific Marine Environmental Laboratory in Seattle.

Oceans Advantage – Acidity Kills Coral Reefs

Increasing pH imbalances in ocean acidity will destroy coral reefs by the end of the century

Elperin, 2006

[<http://www.washingtonpost.com/wp-dyn/content/article/2006/07/04/AR2006070400772.html>] "Growing Acidity of Oceans May Kill Corals," Washington Post, Juliet Eilperin, Washington Post Staff Writer, Wednesday, July 5, 2006; Page A01]

"The paper by Lo?iciga ignores decades of scholarship, presents inappropriate calculations and draws erroneous conclusions that simply do not apply to real ocean," they wrote. They added that, **unless carbon dioxide levels in the atmosphere stabilize soon, the seas will soon exceed the Environmental Protection Agency's recommended acidity limits.** Scientists have conducted a few ocean acidification experiments in recent years. **All have shown that adding carbon dioxide to the water slows corals' growth rate and can dissolve pteropods' shells.** Langdon, who conducted an experiment between 1996 and 2003 in Columbia University's Biosphere 2 lab in Tucson, concluded that corals grew half as fast in aquariums when exposed to the level of carbon dioxide projected to exist by 2050. **Coupled with the higher sea temperatures that climate change produces,** Langdon said, **corals may not survive by the end of the century. "It's going to be on a global scale and it's also chronic,"** Langdon said of ocean acidification. **"Twenty-four/seven, it's going to be stressing these organisms. . . . These organisms probably don't have the adaptive ability to respond to this new onslaught."** Stanford University marine biologist Robert B. Dunbar has studied the effect of increased carbon dioxide on coral reefs in Israel and Australia's Great Barrier Reef. "What we found in Israel was the community is dissolving," Dunbar said. Caldeira has mapped out where corals exist today and the pH levels of the water in which they thrive; by the end of the century, no seawater will be as alkaline as where they live now. **If carbon dioxide emissions continue at their current levels, he said, "It's say goodbye' to coral reefs."**

Elections Add-On (McCain Good)

A. Carbon tax unpopular – hurts the Democrats, it will cost them the election

Kriz, 2007

Margaret, "Dingell's Dare," [the National Journal](#), October 20

Champions of a carbon tax admit that **energy taxes are wildly unpopular on Capitol Hill**. Dingell, first elected to Congress in 1955, remembers the uproar in 1993 **when the Clinton administration tried to cut U.S. demand for coal and oil by taxing their energy content. The fight that followed "is widely reputed to have severely hurt the Democrats in the following election."** Dingell notes. In 1994, **Democrats lost control of both the House and the Senate**. So no one was surprised when congressional Republicans blasted the energy taxes proposed by Dingell and by Rep. James Oberstar, D-Minn., who sought to raise the federal gasoline tax to help pay for road repairs after the Minneapolis bridge collapse. House **Republican Whip Roy Blunt** of Missouri **accused the Democrats of targeting rural workers**. "This nonsensical policy would greatly harm our economy and disproportionately punish those who live outside our nation's cities and depend on their cars and trucks to get to work," he charged.

B. Obama's retreat in Iraq would spur massive terrorism and warfare across the Mid East

Craft '08

[Paul, Craft Reports for Renew America, Feb 11, "Should Israel Fear Barack Obama?"
<http://www.renewamerica.us/columns/craft/080211>]

Senator **Obama** has made it very clear that he **would begin withdrawal of American troops from Iraq** as soon as he becomes President. Regardless if you think President Bush made a mistake by attacking Iraq, **the consequences of a premature withdrawal would be catastrophic. The situation in Iraq has stabilized and Al-Qaeda is on the run**. It was reported today that, "some leaders of Al-Qaeda in Iraq and other extremist groups are fleeing Iraq with cash to escape US forces and possibly to try to regroup outside the country, a senior US commander said Monday." With the U.S. and Iraqi government gaining control, **the possible outcome of an Obama immediate withdrawal would give a free reign of terror in the Middle East**. Without an American troop presence as a deterrent, **the fleeing extremist groups would be emboldened to again begin their reign of terror**. You can bet that Iran's President Mahmoud Ahmadinejad will try to take advantage of the situation.

C. Mid East instability causes global nuclear war

Steinbach '02

[John, Centre for Research on Globalisation, <http://www.globalresearch.ca/articles/STE203A.html>]

Meanwhile, the existence of an arsenal of mass destruction in such an unstable region in turn has serious implications for future arms control and disarmament negotiations, and even the threat of nuclear war. Seymour Hersh warns, **"Should war break out in the Middle East** again,... or should any Arab nation fire missiles against Israel, as the Iraqis did, **a nuclear escalation**, once unthinkable except as a last resort, **would now be a strong probability**." (41) and Ezer Weissman, Israel's current President said "The nuclear issue is gaining momentum (and the) next war will not be conventional." (42) Russia and before it the Soviet Union has long been a major (if not the major) target of Israeli nukes. It is widely reported that the principal purpose of Jonathan Pollard's spying for Israel was to furnish satellite images of Soviet targets and other super sensitive data relating to U.S. nuclear targeting strategy. (43) (Since launching its own satellite in 1988, Israel no longer needs U.S. spy secrets.) Israeli nukes aimed at the Russian heartland seriously complicate disarmament and arms control negotiations and, at the very least, **the unilateral possession of nuclear weapons by Israel** is enormously destabilizing, and **dramatically lowers the threshold for** their actual use, if not for **all out nuclear war**. In the words of Mark Gaffney, "... if the familiar pattern (Israel refining its weapons of mass destruction with U.S. complicity) is not reversed soon- for whatever reason- **the deepening Middle East conflict could trigger a world conflagration.**"

CTX - Elections Link

Carbon tax is politically unpopular

Cranford, 2007

John, CQ Columnist, CQ Weekly, "Political Economy: In a Pigovian's Eye," November 10

Arthur Cecil Pigou was an early 20th century economist at Cambridge University whose most important work included analyses of how government-imposed taxes and subsidies can be used to correct for cases where markets fail to efficiently allocate resources. In essence, **a Pigovian tax is intended to counter behavior that is considered socially undesirable by raising the price.** An added virtue of such taxes is that **they generate revenue that can be used to alleviate disproportionate effects of the tax, or further contribute to the social welfare.** Taxes on tobacco are a good example. Today, the Pigovians (and they range from Paul Krugman on the left to Alan Greenspan on the right) are all lined up on the side of imposing a tax on the carbon content of fuels as the best way to limit the effects of carbon dioxide and other greenhouse gases on climate change. However, **as much as economists of all stripes embrace this idea, it has almost no takers among politicians and relatively few among environmentalists.** (Two prominent exceptions are former Vice President Al Gore and Mayor Michael Bloomberg of New York.)

McCain Good - Latin America

McCain consolidates latin American democracy – Obama would destroy it.

Hidalgo '08

[Juan Carlos, project coordinator for Latin America at the Cato Institute's Center for Global Liberty and Prosperity, Jun 3, "Beyond Castro," http://www.spectator.org/dsp_article.asp?art_id=13306]

MCCAIN'S BROADER VISION for Latin America, however, is far better than Obama's. The Republican candidate once again insisted on the importance of free trade as the bedrock of U.S. relations throughout the region. He underscored the importance of free trade agreements in building prosperity and strengthening democracy, and renewed his call for approving the U.S.-Colombia deal on an expedited basis. For his part, though he repeatedly talked of not treating the region as a "junior partner," Obama offered a condescending set of policies that reinforce the Washingtonian arrogance he claims to want to replace. Calling for a "new alliance of the Americas" (another one?), Obama offered to save Latin America from itself. According to the Democratic candidate, populism and authoritarianism in many countries are the results of U.S. failure to engage the region. If only Washington could rescue its southern neighbors from their own failures. Obama - who once promised to "perfect" the United States, seems to regard himself equally capable of "targeting every source of fear in the Americas" and "advanc[ing] freedom from want" in the region. For this purpose, he promises to "substantially increase" foreign aid to Latin America, despite the mediocre record of official assistance in lifting people out of poverty around the world. Offering aid to governments in the region instead of trade agreements that benefit their citizens directly underscores the perception of Latin Americans that the U.S. sees them as "poor relatives" instead of equals. More troubling is Obama's recipe against drug trafficking in Central America. He promises to escalate U.S. involvement in the region, and conditions more resources to governments on "clear benchmarks for drug seizures, corruption prosecutions, crime reduction, and kingpins busted." These "benchmarks" on sovereign governments are an affront to Obama's call for "mutual respect" between the U.S. and Latin America. It's been widely said that Latin America has been badly neglected under the Bush administration. The solution is said to be more U.S. involvement in the region. But that is simply not the case. Prosperity and democracy ultimately depend on Latin Americans themselves, and the policies they implement. Washington can only help by strengthening commercial ties between both sides. McCain seems to understand this. Obama still doesn't.

Latin America is key to global democracy.

Weintraub '95

[Sidney, Chair in Political Economy at CSIS, Summer, "U.S. Policy, Brazil, and the Southern Cone," Washington Quarterly, Lexis]

Yet this triad of objectives -- economic liberalization and free trade, democratization, and sustainable development/ alleviation of poverty -- is generally accepted in the hemisphere. The commitment to the latter two varies by country, but all three are taken as valid. All three are also themes expounded widely by the United States, but with more vigor in this hemisphere than anywhere else in the developing world. Thus, failure to advance on all three in Latin America will compromise progress elsewhere in the world.

Global democratic consolidation solves extinction.

Diamond '95

[Larry, Senior Fellow at Hoover Institute, "Why Promote Democracy?" <http://wwics.si.edu/subsites/ccpdc/pubs/di/1.htm>]

This hardly exhausts the lists of threats to our security and well-being in the coming years and decades. In the former Yugoslavia nationalist aggression tears at the stability of Europe and could easily spread. The flow of illegal drugs intensifies through increasingly powerful international crime syndicates that have made common cause with authoritarian regimes and have utterly corrupted the institutions of tenuous, democratic ones. Nuclear, chemical, and biological weapons continue to proliferate. The very source of life on Earth, the global ecosystem, appears increasingly endangered. Most of these new and unconventional threats to security are associated with or aggravated by the weakness or absence of democracy, with its provisions for legality, accountability, popular sovereignty, and openness. LESSONS OF THE TWENTIETH CENTURY The experience of this century offers important lessons. Countries that govern themselves in a truly democratic fashion do not go to war with one another. They do not aggress against their neighbors to aggrandize themselves or glorify their leaders. Democratic governments do not ethnically "cleanse" their own populations, and they are much less likely to face ethnic insurgency. Democracies do not sponsor terrorism against one another. They do not build [w]eapons of [m]ass [d]estruction to use on or to threaten one another. Democratic countries form more reliable, open, and enduring trading partnerships. In the long run they offer better and more stable climates for investment. They are more environmentally responsible because they must answer to their own citizens, who organize to protest the destruction of their environments. They are better bets to honor international treaties since they value legal obligations and because their openness makes it much more difficult to breach agreements in secret. Precisely because, within their own borders, they respect competition, civil liberties, property rights, and the rule of law, democracies are the only reliable foundation on which a new world order of international security and prosperity can be built.

McCain Good – US/India Relations

a. McCain is key to US-Indian relations – Obama will collapse them.

Aiyar '08

[Swaminathan, The Times of India, Apr 27, "India needs McCain as US President,"
http://timesofindia.indiatimes.com/Columnists/S_A_Aiyar_India_for_McCain/articleshow/2986947.cms]

Which of the three candidates for the US Presidency — Hilary Clinton, Barack Obama, and John McCain — will be best for India? Most Indians would opt for Obama or Clinton. But from a policy viewpoint, McCain would be best for India. Indians have followed with fascination the Democratic struggle in primaries between Clinton and Obama. Through history, all presidential candidates of the Republican and Democratic parties have been white males. This time, all white males have been eliminated early in the Democratic primaries, and the race is now between a woman and a black. Indian feminists would love to see Clinton win. The US constitution in 1787 had a noble vision of equality for all humans, yet women did not get the vote till 1920. For a woman to be elected this year would be a US landmark. However, female rulers are not news at all in South Asia. Every major country in the region has had female rulers — Indira and Sonia Gandhi in India, Begums Hasina and Khaleida in Bangladesh, Benazir Bhutto in Pakistan, and Srimavo Bandaranaike and Chandrika Kumaratunge in Sri Lanka. All these women attained power because they were related to earlier male prime ministers. Hence, they represented a feudal culture of inheritance within powerful families, not of feminists storming male bastions. Hilary Clinton's rise also owes much to her relationship with a powerful male president. So, a Hilary victory would replicate the South Asian model, with women coming to power via the bedroom door. From a gender viewpoint, that is not an uplifting model. Far more uplifting would be the election of a black as US president. Blacks entered the US as slaves in the 18th and 19th centuries. The US Civil War ended slavery, but southern States enacted laws that, by one device or another, prevented most blacks from voting. Only with the civil rights legislation of the 1960s did blacks become full partners in the US democracy. Most Indians passionately supported the US civil rights movement, and so will be delighted with an Obama victory. John McCain cannot possibly capture our imagination the same way. As a Republican, he carries the odium of being President Bush's party colleague. Remember, Indian political parties unanimously passed a parliamentary resolution in 2003 deploring the US invasion of Iraq. McCain is a hawk on Iraq, and wants the US forces to stay there almost forever. He is much admired in the US as a Vietnam War hero. But Indians view American soldiers in Vietnam as failed imperialists rather than heroes. However, what matters for Indo-US relations is not the colour, gender or war record of any presidential candidate. What matters is their position on key bilateral issues. And in this regard, McCain beats Clinton and Obama hollow. Both the Democrats say they will reduce US troops in Iraq quickly, but not withdraw totally. Both are as hawkish on Iran as McCain. Both are working hard to change the image of the Democrats as being soft on defence and security issues. The Indo-US nuclear deal is in a limbo after Left Front objections, and can be revived only after fresh elections and fresh rulers in the two countries in November 2008 and May 2009 respectively. Historically, the US nuclear non-proliferation lobby was always dead against Indian nuclear advancement, but President Bush bulldozed his way through these objections to try and create a new Indo-US strategic partnership. McCain as president will be inclined to pursue the Bush line. However, Democrats have always strongly opposed nuclear proliferation. Bill Clinton imposed sanctions on India for its 1998 nuclear explosion. If the next president is a Democrat, non-proliferators will once again occupy key positions of power. Nuclear specialists in past Democratic regimes, such as Strobe Talbott or George Perkovich, are strongly opposed to the Indo-US nuclear deal. Even if the new president is inclined to go ahead, the non-proliferation lobby will probably attach new conditions — such as curbing economic ties with Iran — that India may find unacceptable. In matters of trade, Democrats have always been instinctively protectionist. Both Clinton and Obama have sworn to renegotiate the North American Free Trade Agreement with Canada and Mexico, and have opposed free-trade agreements with Colombia and Korea. The US is slipping into recession, and so protectionist pressures are going to rise sharply. A Democratic president will favour protectionist measures to stop the migration of jobs from the US to emerging markets like India and China. Curbs on Indian software and outsourcing deals can be expected, and the issue of visas to Indian specialists to work in the US will be curbed. By contrast, McCain is generally in favour of free trade. He will oppose most protectionist measures proposed by the US Congress (which has a Democratic majority) with some determination. He is more likely than any Democrat to offer concessions on agricultural subsidies in the Doha Round negotiations. Indians find Obama and Clinton more likeable than McCain, but personal likeability is irrelevant in international relations. McCain will be best for India.

b. US-Indo relations solve extinction and solves the warming advantage.

Tellis '06

[Ashley, Senior Assoc Carnegie Endowment, Apr 26, <http://www.senate.gov/~foreign/testimony/2006/TellisTestimony060426.pdf>]

Finally, a strong American partnership with a democratic India will be essential if we are to successfully preserve a global order that protects liberal societies and advances freedom in myriad ways. This objective encompasses a congeries of diverse goals, including promoting democracy, defeating terrorism and religious extremism, collaborating to protect the energy routes and lines of communication supporting free trade and commerce, expanding the liberal international economic order, and managing climate change—each of which is critical to the well being of the United States. It does not take a great deal of imagination to recognize that for the first time in recent memory Indian and American interests on each of these issues are strongly convergent and that India's contribution ranges from important to indispensable as far as achieving U.S. objectives is concerned.

McCain Good - Free Trade

a. Obama is ultra-protectionist – will collapse free trade.

Wall Street Journal '08

[May 28, "Change You'll Have to Pay For," http://online.wsj.com/article/SB121191764691823641.html?mod=googlenews_wsj]

Here's one "change" presidential candidate Barack **Obama** apparently **believes in: higher prices.** Witness his letter last week urging President George W. Bush not to submit the U.S.-South Korea free-trade agreement to Congress for ratification. Mr. Obama's objection, as stated in his letter, is that the deal "would give Korean exports essentially unfettered access to the U.S. market and would eliminate our best opportunity for obtaining genuinely reciprocal market access in one of the world's largest economies." In other words, ordinary American consumers would get too good a deal. For an idea of how good, look at automobiles, about which Mr. Obama professes particular concern. The free-trade agreement would eliminate America's 2.5% tariff on most Korean car imports. Even better, it would phase out the 25% tariff on pick-ups and light trucks. Overall, the Korean trade deal would boost the U.S. economy by \$10 billion to \$12 billion. Mr. Obama thinks this benefit to U.S. consumers isn't worth the risk that South Korea might not live up to its promise to eliminate its own 8% tariff on U.S. autos and cut its bewildering array of nontariff barriers, such as arcane safety standards. This despite the fact that the deal includes enforcement provisions if Korea backtracks. On the record so far, Mr. **Obama is the most protectionist U.S. presidential candidate in decades.** In February **he inserted a statement opposing the Korean trade deal** into the Congressional record only days before securing the endorsement of the powerful Teamsters union. **He also opposes the U.S.-Colombia pact, and he has called for rewriting Nafta** – unilaterally if Canada and Mexico don't play along. Mr. Obama's economic adviser, Austan Goolsbee, told Canadian officials this was all for primary show, but the candidate is backing himself into a political corner should he win the White House. Mr. Obama is promising change you can believe in. But **on trade, it is closer to the status quo Americans will be paying for.**

b. Protectionism causes nuclear war.

Miller & Elwood '88

[Vincent (President of International Society for Individual Liberty) & James (Vice President of ISIL), "FREE TRADE OR PROTECTIONISM?" <http://www.isil.org/resources/lit/free-trade-protectionism.html#author>]

When Goods Don't Cross Borders, Armies Often **Do History is not lacking in examples of cold trade wars escalating into hot shooting wars:** Europe suffered from almost non-stop wars during the 17th and 18th centuries, when restrictive trade policy (mercantilism) was the rule; rival governments fought each other to expand their empires and to exploit captive markets. British tariffs provoked the American colonists to revolution, and later the Northern-dominated US government imposed restrictions on Southern cotton exports – a major factor leading to the American Civil War. In the late 19th Century, after a half century of general free trade (which brought a half-century of peace), short-sighted politicians throughout Europe again began erecting **trade barriers.** Hostilities built up until they **eventually exploded into World War I.** In 1930, facing only a mild recession, US **President Hoover** ignored warning pleas in a petition by 1028 prominent economists and signed the notorious Smoot-Hawley Act, which **raised some tariffs** to 100% levels. Within a year, over 25 other governments had retaliated by passing similar laws. The result? **World trade came to a grinding halt, and the entire world was plunged into the "Great Depression"** for the rest of the decade. **The depression in turn led to World War II.** The #1 Danger To World Peace The world enjoyed its greatest economic growth during the relatively free trade period of 1945-1970, a period that also saw no major wars. Yet we again see trade barriers being raised around the world by short-sighted politicians. Will the world again end up in a shooting war as a result of these economically-deranged policies? **Can we afford to allow this to happen in the nuclear age?**

McCain Good - China Bashing

a. Obama would pressure China on currency.

Callan '07

[Eoin, Financial Times, Jul 5, "Clinton and Obama back China crackdown," http://www.ft.com/cms/s/0/e628b512-2b20-11dc-85f9-000b5df10621.html?ncllick_check=1]

Hillary Clinton and Barack **Obama**, the frontrunners for the Democratic presidential nomination, have **agreed to co-sponsor legislation that would levy punitive duties on Chinese goods to cajole Beijing into revaluing its currency**, according to aides. The endorsement is a sign that trade with China is emerging as a hot political issue in the upcoming election and increases the prospect of the legislation passing with a veto-proof majority, analysts said. The bipartisan legislation has been spurred by claims that China's cheap currency makes its exports more attractive and is contributing to the record annual \$232.6bn (£115.6bn) US trade deficit with the country. The early pledge to vote for the bill will strengthen the candidates' claims to be defending US manufacturers against what they argue is unfair competition. A critical stance on US trade policy has become increasingly de rigueur for candidates as the Democratic presidential field tilts towards a populist stance on economic issues. The bill, introduced by Senators Max Baucus, Chuck Grassley, Charles Schumer and Lindsey Graham, would permit US companies to seek anti-dumping duties on Chinese imports based on the undervaluation of the currency and calls for a trade case to be brought by the US at the World Trade Organisation. Analysts said **the sponsorship of the bill by the two leading candidates made it more likely the US would take a more aggressive stance towards Beijing on trade issues if the Democrats took the White House.**

b. That collapses the economy.

Pethokoukis '07

[James, US News & World Report, Jun 17, "A Shot Across the Bow," <http://www.usnews.com/usnews/biztech/articles/070617/25trade.htm>]

Charles Schumer and Lindsey Graham may never be mistaken for Reed Smoot and W. C. Hawley, the congressional sponsors of the infamous 1930 tariff law that kick-started the Great Depression. **The much-anticipated trade bill** that Senators Schumer, a New York Democrat, and Graham, a South Carolina Republican, unveiled last week **is hardly a 21st-century update of Smoot-Hawley, which raised tariffs on some 20,000 imported goods.** Their Currency Exchange Rate Oversight Reform Act is a far more subtle and limited piece of protectionist legislation. Without ever mentioning China by name, **the bill is obviously designed to push—or at least nudge—Beijing into more quickly raising the value of its currency in hopes of reducing America's \$200 billion annual trade deficit with that nation.** "China is the elephant in the room," says trade attorney Brian Pomper.

c. Economic collapse causes nuclear war.

Cook '07

[Richard C., Writer Consultant & Former Analyst US treasury department, Global Research Online]

Times of economic crisis produce international tension and politicians tend to go to war rather than face the economic music. The classic example is the worldwide depression of the 1930s leading to World War II. Conditions in the coming years could be as bad as they were then. **We could have a really big war if the U.S. decides once and for all to haul off and let China, or whomever, have it in the chops. If they don't want our dollars or our debt any more, how about a few nukes?**