### Case

#### Cheap natural gas won’t block SMR commercialization

**Marston 12** (Theodore U. Marston PHD. – Principal @ Marston Consulting Board of Managers, Idaho National Laboratory Formerly DOE NERAC Generation IV Oversight Committee 2001-2002)

(March 2012, “Status of Small Modular Light Water Reactors in the US” in “The Nuclear Decarbonization Option: Profiles of Selected Advanced Reactor Technologies”

The primary economic challenge to the commercialization of smLWRs is whether the electricity production costs are (1) affordable and (2) competitive with other forms of generation. With regard to affordability, smLWRs offer potential optionality to the US electric utilities, when the only real options for large generation additions are gas fired, coal fired or large nuclear plants. SmLWRs, being smaller and modular, potentially offer a more manageable nuclear option. SmLWRs are more ‘affordable’, i.e. less of a fiscal risk. They can be deployed in much smaller increments, matching the utilities’ load growths better and reduce the ‘single shaft’ generation risk to an acceptable level. Competing with other forms of electricity generation is a much greater challenge today. Vast amounts of natural gas are being discovered across the US in so-called tight gas (shale) deposits, resulting in cheap and abundant natural gas. The current spot market price of natural gas is less than $3.00/MMBTU. Carbon restraints (taxes or credits), which would improve the competitiveness of smLWRs, appear unlikely to arise in the near future. However it is expected that carbon emissions from large stationary sources will be reduced systematically over time one way or another, and US utilities are very interested in reducing their ‘carbon footprints’. If the economics of the smLWRs are what some of the designs claim, there is a real chance to compete with natural gas fired plants, particularly when carbon constraints are in place. The cost competitiveness of smLWR depend heavily on achieving the following opportunities: l Streamline design and manufacturing are necessary to offset the economies of scale of other generation options, particularly nuclear plants. ALWRs are becoming larger and larger due to the economies of scale. The only prospect to reverse this effect for the smaller smLWRs is to streamline the shop fabrication of the NSSS and other modules, ship them to the site and install them rapidly. The requisite quality standards must be maintained throughout the entire process. l Modularity of the smLWRs provides the opportunity to transform how we design, build, operate and decommission nuclear power plants. l Reduce construction time by modularization and construction efficiencies l SMRs do not require loan guarantees. This sets the smLWR apart from the larger ALWR, which currently benefit from federal loan guarantees, especially for regulated utilities. Experience shows the loan guarantee process to be a protracted and expensive affair, requiring the expenditure of significant political and fiscal capital.

### 2AC: T – Procurement ≠ Financial Incentive

#### We meet – we provide financial incentives for investors to build SMRs, the procurement is just a guarantee

Their yosouf evidence indicates that ..

Financial incentives exist when an agent can expect some form of reward in exchange for a particular course of action

#### CI - Financial incentives induce behaviors using cash

Webb 93 – lecturer in the Faculty of Law at the University of Ottawa (Kernaghan, “Thumbs, Fingers, and Pushing on String: Legal Accountability in the Use of Federal Financial Incentives”, 31 Alta. L. Rev. 501 (1993) Hein Online)

In this paper, "financial incentives" are taken to mean disbursements 18 of public funds or contingent commitments to individuals and organizations, intended to encourage, support or induce certain behaviours in accordance with express public policy objectives. They take the form of grants, contributions, repayable contributions, loans, loan guarantees and insurance, subsidies, procurement contracts and tax expenditures.19 Needless to say, the ability of government to achieve desired behaviour may vary with the type of incentive in use: up-front disbursements of funds (such as with contributions and procurement contracts) may put government in a better position to dictate the terms upon which assistance is provided than contingent disbursements such as loan guarantees and insurance. In some cases, the incentive aspects of the funding come from the conditions attached to use of the monies.20 In others, the mere existence of a program providing financial assistance for a particular activity (eg. low interest loans for a nuclear power plant, or a pulp mill) may be taken as government approval of that activity, and in that sense, an incentive to encourage that type of activity has been created.21 Given the wide variety of incentive types, it will not be possible in a paper of this length to provide anything more than a cursory discussion of some of the main incentives used.22 And, needless to say, the comments made herein concerning accountability apply to differing degrees depending upon the type of incentive under consideration. By limiting the definition of financial incentives to initiatives where *public funds are either disbursed or contingently committed*, a large number of regulatory programs with incentive *effects* which exist, but in which no money is forthcoming,23 are excluded from direct examination in this paper. Such programs might be referred to as *indirect* incentives. Through elimination of indirect incentives from the scope of discussion, thedefinition of the incentive instrument becomes both more manageable and more particular. Nevertheless, it is possible that much of the approach taken here may be usefully applied to these types of indirect incentives as well.24 Also excluded from discussion here are social assistance programs such as welfare and *ad hoc* industry bailout initiatives because such programs are not designed primarily to *encourage* behaviours in furtherance of specific public policy objectives. In effect, these programs are assistance, but they are not incentives.

#### Our definition’s from the DoE

Waxman 98 **–** Solicitor General of the US (Seth, Brief for the United States in Opposition for the US Supreme Court case HARBERT/LUMMUS AGRIFUELS PROJECTS, ET AL., PETITIONERS v. UNITED STATES OF AMERICA, http://www.justice.gov/osg/briefs/1998/0responses/98-0697.resp.opp.pdf)

2 On November 15, 1986, Keefe was delegated “the authority, with respect to actions valued at $50 million or less, to approve, execute, enter into, modify, administer, closeout, terminate and take any other necessary and appropriate action (collectively, ‘Actions’) with respect to Financial Incentive awards.” Pet. App. 68, 111-112. Citing DOE Order No. 5700.5 (Jan. 12, 1981), the delegation defines “Financial Incentives” as the authorized financial incentive programs of DOE, “including direct loans, loan guarantees, purchase agreements, price supports, guaranteed market agreements and any others which may evolve.” The delegation proceeds to state, “[h]owever, a separate prior written approval of any such action must be given by or concurred in by Keefe to accompany the action.” The delegation also states that its exercise “shall be governed by the rules and regulations of [DOE] and policies and procedures prescribed by the Secretary or his delegate(s).” Pet. App. 111-113

#### Here’s a list of financial incentives we allow

Manage 6 (12 Manage, management portal which contains over 400 methods and theories along with more than 1500 management terms, “Incentives,” 3-9, http://www.12manage.com/description\_incentives.html)

Definition Incentives. Description.

An Incentive is any extrinsic reward factor that motivates an employee or manager or team to achieve an important business goal on top of his/her/their intrinsic motivation. It is a factor aiming to shape or direct behavior. In an optimal form, executives and employees should be remunerated well (but cost-effectively) where they deserve it, and not where they do not. Pay-offs for failure should be kept to a minimum. Furthermore, to be effective, a layered or gradual approach is better than an all-or-nothing incentive. A smart executive reward scheme is one of the pillars to ensure entrepreneurial behavior and maximizing shareholder value (Compare: Value Based Management). An incentive is unlike coercion, in that coerced work is motivated by the threat or use of violence, punishment or negative action, while an incentive is a positive stimulation. Incentives can also be used as Anti Hostile Takeover Mechanisms.

categories of incentives. Classes

 Financial Incentive. Also called, Remunerative Incentive, this category involves offering a material reward (often in the form of money) in exchange for certain results or behavior. In business, this is the most important category. The many variants include:

 Profit sharing (the traditional, oldest approach).

 Merit pay (merit wage or salary increase, often depending on the results of an appraisal).

 Scientific Management (Taylor) and Piece-Rate systems (very effective on productivity, but may lead to quality issues).

 Pay for Performance or Gain Sharing.

 Moral Incentive. Where a particular behavior is widely regarded as the right thing to do, or as particularly admirable, or where the failure to act in a certain way is condemned as indecent.

 Coercive Incentive. Where a failure to behave in a certain way or to achieve certain results can be expected to result in physical force being used.

Furthermore, incentives can be either a:

 Personal Incentive (motivating a specific individual person).

 Social Incentive (motivating any individual in certain circumstances).

#### CI – Energy production means generation of power

IILS 11 (International Institute for Labour Studies, “Toward a Green Economy: The Social Dimensions,” <http://www.ilo.org/public/english/bureau/inst/research/ecinst/greensyn.pdf>)

More accurate would be the term “generation of power”, since energy cannot be “produced”. For simplicity, we use the term “production of energy” throughout the report

#### “Production” of nuclear power includes heat content of steam of a nuclear reactor

Eurostat 5 (Statistical Office of the European Communities, “Energy Statistics Manual,” International Energy Agency, <http://www.iea.org/stats/docs/statistics_manual.pdf>)

Primary electricity and heat Setting a figure for the production of primary electricity and heat is closely related to the definition of these two forms of energy in the different conditions of their exploitation. In general, the statistical production point is chosen to be a suitable measurement point as far “downstream” as possible from the capture of the energy flow before the energy flow is used. For example, for hydroelectricity, this will be the electricity generated at the alternators driven by the water turbines. For nuclear reactors, it will be the heat content of the steam leaving the reactor; there are a few cases where some steam is taken from reactors and used for district heating purposes as well as electricity generation. Where this does not occur, the steam input to the turbine may be used.

#### Prefer it

#### Ground – allows a wider variety of incentive mechanisms which are key since the reduce restrictions part of the topic is the biggest– forcing the aff to spend government money is the only stable mechanism for disad links and counterplan competition.

#### Predictable – it’s the only big SMR aff, you should be prepared to debate it

#### Extra T is good – more K, CP ground

#### Prefer reasonability – they can always find the most limiting interpretation to exclude any aff – kills topic education because teams will go for T instead of researching the topic

### CP

#### Perm do both – CP’s either popular and shields the plan, or links to elections

#### Doesn’t solve DoD – don’t have the DoD procure, doesn’t solve grid stability or heg, fwd

#### Doesn’t solve warming – licensing is the key issue not financing, that’s the wheeler evidence, other countries are looking to model NRC licensing which only the plan solves through DoD involvement, so only we solve a global transition away from fossil fuels that’s key to solve warming

#### Condo is a voter- results in argument irresponsibility, time and strat skews- no cost options in the 1nc make the 2ac impossible and kills in round education – 1 condo solves your offense

### 2AC – Consumption K

#### Case outweighs – global warming is real, happening now and will consume the planet, only the plan can solve global emissions by spurring a global nuclear transition , heg descalates conflicts and solves great power wars

#### Extinction outweighs

Bok 88 (Sissela, Professor of Philosophy at Brandeis, Applied Ethics and Ethical Theory, Rosenthal and Shehadi, Ed.)

The same argument can be made for Kant’s other formulations of the Categorical Imperative: “So act as to use humanity, both in your own person and in the person of every other, always at the same time as an end, never simply as a means”; and “So act as if you were always through your actions a law-making member in a universal Kingdom of Ends.” No one with a concern for humanity could consistently will to risk eliminating humanity in the person of himself and every other or to risk the death of all members in a universal Kingdom of Ends for the sake of justice. To risk their collective death for the sake of following one’s conscience would be, as Rawls said, “irrational, crazy.” And to say that one did not intend such a catastrophe, but that one merely failed to stop other persons from bringing it about would be beside the point when the end of the world was at stake. For although it is true that we cannot be held responsible for most of the wrongs that others commit, the Latin maxim presents a case where we would have to take such responsibility seriously – perhaps to the point of deceiving, bribing, even killing an innocent person, in order that the world not perish. To avoid self-contradiction, the Categorical Imperative would, therefore, have to rule against the Latin maxim on account of its cavalier attitude toward the survival of mankind. But the ruling would then produce a rift in the application of the Categorical Imperative. Most often the Imperative would ask us to disregard all unintended but foreseeable consequences, such as the death of innocent persons, whenever concern for such consequences conflicts with concern for acting according to duty. But, in the extreme case, we might have to go against even the strictest moral duty precisely because of the consequences. Acknowledging such a rift would post a strong challenge to the unity and simplicity of Kant’s moral theory.

#### Perm do the plan and reorient our relationship to consumption

#### A. Consumption focus fails---political action key

Bryant 12—prof of philosophy at Collin College (Levi, Black Ecology: A Pessimistic Moment, [larvalsubjects.wordpress.com/2012/03/19/black-ecology-a-pessimistic-moment/](http://larvalsubjects.wordpress.com/2012/03/19/black-ecology-a-pessimistic-moment/))

So why is this an issue? It’s an issue because while environmentalists prescribe all sorts of action we need to take to avert the climate catastrophe, it seems to me that in failing to engage in an ecology of social and political institutions they are whistling past the graveyard by failing to address the question of the conditions under which action is possible. Here’s the part where everyone gets angry with me. Given the way in which government and corporations are today intertwined*, I don’t think there’s much we can do to avert the coming catastrophe*. As Morton says, referring to logical time, “the catastrophe has already happened”. So what would it mean, I wonder, to take Morton’s thesis seriously? Here I know Tim will disagree with me. When I look at environmental discussions in popular media and from many around me, I see the discussion revolving almost entirely around consumers. We’re told that we have to consume differently to solve this problem. I agree that we need to consume differently, but **I don’t see any feasible way in which**driving fuel efficient cars, **using less** heat and AC, eating less meat, etc **will solve these problems**. This is because the lion’s share of our climate change problems arise from the production and distribution end of the equation, rather than the consumption end. They are problems arising from agricultural practices, factories, and how we ship goods throughout countries and the world. The problem is that given the way in which governments and corporations are intertwined with one another, and given the way in which third world countries are dependent on fossil fuels for their development, andgiven the fact that only governmental solutions can address problems of production and distribution, **we’re left with no recourse for action**. We can only watch helplessly while our bought and sold politicians continue to fiddle as the world burns.

#### B. The perm radicalizes reformism

Doran and Barry 6 – worked at all levels in the environment and sustainable development policy arena - at the United Nations, at the Northern Ireland Assembly and Dáil Éireann, and in the Irish NGO sector. PhD--AND-- Reader in Politics, Queen's University School of Politics, International Studies, and PhilosophyPhD Glasgow (Peter and John, Refining Green Political Economy: From Ecological Modernisation to Economic Security and Sufficiency, Analyse and Kritik 28/2006, p. 250–275, <http://www.analyse-und-kritik.net/2006-2/AK_Barry_Doran_2006.pdf>) EM = Ecological Modernization

Viewed in isolation EM can be painted as a reformist and limited strategy for achieving a more sustainable economy and society, and indeed questions could be legitimately asked as to whether the development of a recognisably ‘green’ political economy for sustainable development can be based on it. In this paper,  it is contended that there are strategic advantages in seeking to build upon and radicalise EM. There are indications in the UK that the debate on sustainable consumption may lead to new deliberative fora for a re-negotiation of the meaning and ends of consumption. Could it be that ‘suﬃciency’ will emerge as the logical complement (on the consumer side) of the early production-side debate on EM on the limits of ‘eﬃciency’ without an ecological context? While there are various reasons one can give for this, in this conclusion we focus on two—one normative/principled the other strategic. From a strategic point of view, it is clear that, as Dryzek and his colleagues have shown, **if green and sustainability goals, aims and objectives are to be integrated within state policy, these need to attach themselves to one of the core state imperatives—accumulation/economic growth or legitimacy** (Dryzek et al. 2003; Barry 2003b). It is clear that the discourse of EM allows (some) green objectives to be integrated/translated into a policy language and framework which complements and does not undermine the state’s core imperative of pursuing orthodox economic growth. Therefore if (in the absence of a Green Party forming a government or being part of a ruling coalition, or even more unlikely of one of the main traditional parties initiating policies consistent with a radical understanding of sustainable development), the best that can be hoped for under current political conditions is the ‘greening of growth and capitalism’ i. e. a narrow, ‘business as usual’ version of EM. Or as Jonathan Porritt has put it, “We need more emphasis about the inherent unsustainability of our dominant economic model, even as we seek to improve the delivery of that model in the short to medium term” (Porritt 2004, 5). 23 On a more principled note, the adoption of EM as a starting point for the development of a model/theory of green political economy does carry with it the not inconsiderable beneﬁt of removing the ‘anti-growth’ and ‘limits to growth’ legacy which has (in our view) held back the theoretical development of a positive, attractive, modern conceptualisation of green political economy and radical conceptualisations of sustainable development. Here the technological innovation, the role of regulation driving innovation and eﬃciency,the promise that the transition to a more sustainable economy and society does not necessarily mean completely abandoning currently lifestyles and aspirations—strategically important in generating democratic support for sustainable development, and as indicated above, importance if the vision of a green sustainable economy is one which promotes diversity and tolerance in lifestyles and does not demand everyone conform to a putative ‘green’ lifestyle. Equally, this approach does not completely reject the positive role/s of a regulated market within sustainable development. However, it does demand a clear shift towards making the promotion of economic security (and quality of life) central to economic (and other) policy. Only when this happens can we say we have begun the transition to implementing the principles of sustainable development rather than fruitlessly seeking for some ‘greenprint’ of an abstract and utopian vision of the ‘sustainable society’.

####  Plan solve meltdowns

**Wheeler 10** – Workforce Planning Manager with Entergy; Producer “This Week in Nuclear” Podcast (John, 11/21 “Small Modular Reactors May Offer Significant Safety & Security Enhancements.” http://thisweekinnuclear.com/?p=1193)

They are smaller, so the amount of radioactivity contained in each reactor is less. So much less in fact, that even if the worst case reactor accident occurs, the amount of radioactive material released would not pose a risk to the public. In nuclear lingo we say SMRs have a smaller “source term.”  This source term is so small we can design the plant and emergency systems to virtually eliminate the need for emergency actions beyond the physical site boundaries.  Then, by controlling access to the site boundary, we can eliminate the need for off-site protective actions (like sheltering or evacuations). These smaller reactors contain less nuclear fuel.  This smaller amount of fuel (with passive cooling I’ll mention in a minute) slows down the progression of reactor accidents.  This slower progression gives operators more time to take action to keep the reactor cool.  Where operators in large reactors have minutes or hours to react to events, operators of SMRs may have hours or even days. This means the chance of a reactor damaging accident is very, very remote. Even better, most SMRs are small enough that they cannot over heat and melt down. They get all the cooling they need from air circulating around the reactor. This is a big deal because if SMRs can’t melt down, then they can’t release radioactive gas that would pose a risk to the public.  Again, this means the need for external emergency actions is virtually eliminated. Also, some SMRs are not water cooled; they use gas, liquid salt, or liquid metal coolants that operate at low pressures.  This lower operating pressure means that if radioactive gases build up inside the containment building there is less pressure to push the gas out and into the air.  If there is no pressure to push radioactive gas into the environment and all of it stays inside the plant, then it poses no risk to the public. SMRs are small enough to be built underground. This means they will have a smaller physical footprint that will be easier to defend against physical attacks.  This provides additional benefits of lower construction costs because earth, concrete and steel are less costly than elaborate security systems in use today, and lower operating costs (a smaller footprint means a smaller security force).

#### Meltdowns cause extinction

Lendman 11 – Research Associate of the Centre for Research on Globalization (Stephe, 3/13. “Nuclear Meltdown in Japan” The People’s Voice <http://www.thepeoplesvoice.org/TPV3/Voices.php/2011/03/13/nuclear-meltdown-in-japan>)

Reuters said the 1995 Kobe quake caused $100 billion in damage, up to then the most costly ever natural disaster. This time, from quake and tsunami damage alone, that figure will be dwarfed. Moreover, under a worst case core meltdown, all bets are off as the entire region and beyond will be threatened with permanent contamination, making the most affected areas unsafe to live in. On March 12, Stratfor Global Intelligence issued a "Red Alert: Nuclear Meltdown at Quake-Damaged Japanese Plant," saying: Fukushima Daiichi "nuclear power plant in Okuma, Japan, appears to have caused a reactor meltdown." Stratfor downplayed its seriousness, adding that such an event "does not necessarily mean a nuclear disaster," that already may have happened - the ultimate nightmare short of nuclear winter. According to Stratfor, "(A)s long as the reactor core, which is specifically designed to contain high levels of heat, pressure and radiation, remains intact, the melted fuel can be dealt with. If the (core's) breached but the containment facility built around (it) remains intact, the melted fuel can be....entombed within specialized concrete" as at Chernobyl in 1986. In fact, that disaster killed nearly one million people worldwide from nuclear radiation exposure. In their book titled, "Chernobyl: Consequences of the Catastrophe for People and the Environment," Alexey Yablokov, Vassily Nesterenko and Alexey Nesterenko said: "For the past 23 years, it has been clear that there is a danger greater than nuclear weapons concealed within nuclear power. Emissions from this one reactor exceeded a hundred-fold the radioactive contamination of the bombs dropped on Hiroshima and Nagasaki." "No citizen of any country can be assured that he or she can be protected from radioactive contamination. One nuclear reactor can pollute half the globe.Chernobyl fallout covers the entire Northern Hemisphere." Stratfor explained that if Fukushima's floor cracked, "it is highly likely that the melting fuel will burn through (its) containment system and enter the ground. This has never happened before," at least not reported. If now occurring, "containment goes from being merely dangerous, time consuming and expensive to nearly impossible," making the quake, aftershocks, and tsunamis seem mild by comparison. Potentially, millions of lives will be jeopardized. Japanese officials said Fukushima's reactor container wasn't breached. Stratfor and others said it was, making the potential calamity far worse than reported. Japan's Nuclear and Industrial Safety Agency (NISA) said the explosion at Fukushima's Saiichi No. 1 facility could only have been caused by a core meltdown. In fact, 3 or more reactors are affected or at risk. Events are fluid and developing, but remain very serious. The possibility of an extreme catastrophe can't be discounted. Moreover, independent nuclear safety analyst John Large told Al Jazeera that by venting radioactive steam from the inner reactor to the outer dome, a reaction may have occurred, causing the explosion. "When I look at the size of the explosion," he said, "it is my opinion that there could be a very large leak (because) fuel continues to generate heat." Already, Fukushima way exceeds Three Mile Island that experienced a partial core meltdown in Unit 2. Finally it was brought under control, but coverup and denial concealed full details until much later. According to anti-nuclear activist Harvey Wasserman, Japan's quake fallout may cause nuclear disaster, saying: "This is a very serious situation. If the cooling system fails (apparently it has at two or more plants), the super-heated radioactive fuel rods will melt, and (if so) you could conceivably have an explosion," that, in fact, occurred. As a result, massive radiation releases may follow, impacting the entire region. "It could be, literally, an apocalyptic event.

#### Growth is sustainable and solves resource depletion

**Emerson 10** (Patrick, Associate Professor of Economics – Oregon State University, “Economic Growth: The Planet's Poor Need Sustainable Expansion,” Oregon Live, 8-7, <http://www.oregonlive.com/opinion/index.ssf/2010/08/economic_growth_the_planets_po.html>)

Does economic growth represent the biggest threat to the planet, or its salvation? In a recent op-ed ("The fallacy of growth in a finite world," Aug. 1), Jack Hart argues that the goal of economic growth is antithetical to a sustainable world. Hart's views reveal a wealthy-country bias about what growth means and fail to appreciate the perspective of poor countries. His characterization of growth is also inaccurate and perpetuates a common misconception about economic growth -- that it necessarily means resource depletion. Finally, his anti-growth agenda would leave the world more imperiled: Economic growth represents the world's best hope to meet the challenges of the future. What does growth mean for the stark realities of life in a low-income society? High-income countries enjoy an average life expectancy of almost 80 years, while in low-income countries it's just 53 years. In developing countries an estimated 900 million people do not have enough food, 1 billion people have no access to safe drinking water, 2.4 billion people have inadequate sanitation and 10,000 children die every day from diseases caused by contaminated water. The infant mortality rate in high-income countries is 7 per 1,000, compared with 114 in low-income countries. These sobering facts of poverty result from a lack of growth. What economic growth has brought to those of us fortunate to live in a wealthy country is not just big TVs and fancy cars, but a safe, secure and long life for ourselves and our children. These statistics are real measures of despair for most of the world's population. The myth of the happy peasant is an arrogant conceit of the wealthy that has existed for centuries to justify income inequality, and it is no truer today than it was in feudal times. Hart argues that the growth of the 19th and 20th centuries has come largely through the depletion and degradation of the earth's natural resources. Growth does not mean resource depletion, however; this is but one way to accomplish growth. Becoming more efficient -- in other words, conserving our resources -- is another. Anything that provides value produces growth. A better, more energy-efficient light bulb, a time-saving personal computer and a better electric car are all ways through which growth can be achieved. Poverty and population growth are highly correlated because poor families in developing countries need children to provide the social safety net that their governments do not. Societies that have experienced economic growth, however, have seen population growth rates decline precipitously. And more people doesn't necessarily represent a problem; it represents a challenge, an incentive and a resource. More people means an increased emphasis on finding more efficient ways to live; it means more potential talent -- brainpower and creativity -- to help solve the very problems we face. Not only does growth not mean resource depletion, but creating more efficient technologies is necessarily growth-enhancing. This is why growth represents the hope of the future, not the challenge to it. Much of the recent growth in developed countries has been achieved not through resource depletion but through the microcomputer and information technology revolution, through designing more efficient buildings and machines, and through substantial improvements in transportation efficiency. This is what will typify 21st century growth: doing more with less. High-income countries, led by the United States, do use the lion's share of the world's energy. But the U.S. produces a lot more value per unit of energy than does China. And high-income countries are making the biggest investment in renewable-energy technology, because our wealth causes us to place increased value on the environment.

#### Consumption and consumerism are inevitable and build ethical democratic solidarity

Cohen 2 (Patricia, Writer for the New York Times, citing James B. Twitchell, Professor of English at the University of Florida, “In Defense Of Our Wicked, Wicked Way”, The New York Times, July 7, <http://www.clas.ufl.edu/users/jtwitche/nytimesarticle.pdf>)

"I CAN stand here and look at this for hours," said James B. Twitchell as he parked himself in front of the bottled water section in City Market, just past the jars of $30-per-pound teas and behind the eight-foot display of imported olive oils. Mr. Twitchell, a professor of English at the University of Florida in Gainesville, specializes in the Romantic poets, but his real obsession is shopping. Given the choice of reading literary theorists like Foucault or gazing at shelves stacked with artfully shaped bottles of water piled up like Jay Gatsby's beautifully tailored shirts, he would quickly choose the latter. "There is more that I can sustain myself with at the water aisle than in all of modern criticism," he said. In a series of books, the latest of which is "Living It Up: Our Love Affair With Luxury" (Columbia University Press), Mr. Twitchell has detailed the consumption habits of Americans with all the scholarly delight of a field anthropologist who has discovered the secret courting rituals of a remote tribe. He is exquisitely attuned to the subtle gradations of status conferred by the labels on what people wear, eat, drink, drive and freeze ice cubes in. And he is not alone. Whether prompted by the 90's spendathon or the endless fascination not only with shopping, but with reading about shopping, a new title by an academic or journalist on the subject appears practically every week. Burlington, where Mr. Twitchell grew up and where he now spends summers, was singled out by David Brooks in his wickedly funny "Bobos in Paradise" as a model Latte Town, a city that has perfectly reconciled the mercenary instincts of the bourgeoisie with the artistic spirit of the bohemians to create an upscale consumer culture. What distinguishes Mr. Twitchell's study of excessive consumerism, though, is that he applauds it. To him, Evian and Pellegrino, Vermont Pure and Dasani are evidence of what could be called his trickledown theory of luxury: that the defining characteristic of today's society is the average person's embrace of unnecessary consumption, superficial indulgence, wretched excess and endless status-seeking. Oh, earthly paradise! Once defined by exclusiveness, luxury is now available -- whether in the form of limited-edition coffee at Starbucks or Michael Graves tea kettles at Target -- to all. And that, Mr. Twitchell maintains, is a good thing. Sure, he argues in his book,buying essentially useless luxury items "is one-dimensional, shallow, ahistorical, without memory and expendable. But it is also strangelydemocratic and unifying. If what you want is peace on earth, a unifying system that transcends religious, cultural and caste differences, well, whoops!, here it is. The Global Village is not the City on the Hill, not quite the Emerald City, and certainly not quite what millennial utopians had in mind, but it is closer to equitable distribution of rank than what other systems have provided." That is, to say the least, a minority report. For centuries, philosophers, artists and clerics railed against luxury. Ecclesiastical courts forbade most people from eating chocolate, drinking coffee or wearing colors like Prussian blue and royal purple -- "luxuria" that signaled living above one's God-ordered place. Thorstein Veblen offered the first modern critique of "conspicuous consumption" in his 1899 treatise "The Theory of the Leisure Class." Post-World War II social critics and economists extended Veblen's critique to the expanding middle class. John Kenneth Galbraith warned in "The Affluent Society" of the binge afflicting the postwar generation. Unwitting consumers, he said, were essentially suckered by admen and salesmen into spending money on things they didn't need. In his 1970 study "The Cultural Contradictions of Capitalism" Daniel Bell argued that "the culture was no longer concerned with how to work and achieve, but with how to spend and enjoy." This trend, he warned, could end up undermining the very work ethic that made capitalism function That, obviously, did not happen. If anything people worked more so they could spend more. In "The Overspent American," Juliet B. Schor noted that people no longer compared themselves with others in the same income bracket, but with the richer and more famous they saw on television, propelling them to spend more than they could afford. To Mr. Twitchell, the naysayers are scolds and spoilsports. Indoor plumbing, sewing machines, dishwashers, college educations, microwaves, coronary bypasses, birth control and air travel all began as luxury items for the wealthy. Nor are buyers mindlessly duped by canny advertisers into buying items they don't really want, he said. Quite the opposite. They enjoy the sensual feel of an Hermes silk tie, the briny delicacy of Petrossian caviar or simply the sensation ofindulging themselves. These things may not bring happiness, but neither does their absence from the lives of people too poor to afford them. It may seem an odd moment to champion luxury. The spectacular boom of the 90's now looks as if it was partly built on spectacular sleight of hand, with Enron, Global Crossing, Adelphia and WorldCom all recently admitting that billions in reported profits were nonexistent. The moment seems ripe for a chastened culture to repent its indulgences. Reassessing the get-and-spend ethic -- not defending consumerism -- might well be the defining current of the next few years. The problem with Mr. Twitchell's view, said Robert H. Frank, author of "Luxury Fever," is that our sense of what we need to live comfortably keeps spiraling upward. It is not that luxury spending isn't good for particular individuals, but that it is bad for society overall. "It's like when everybody stands up for a better view, you don't see better than before," Mr. Frank said from his home in Ithaca. There's a lot of waste in luxury spending. Instead of building safer roads or providing better health care, we are spending that money on bigger diamonds and faster cars. Mr. Twitchell is unpersuaded, however. Walking down Church Street, Burlington's busy pedestrian mall, he pointed out the transformation that the consumer culture has wrought in his hometown. Lean and tanned, with cropped gray hair and rounded tortoise-shell glasses, Mr. Twitchell looks a bit like Dennis the Menace's father after Dennis has grown up, moved across the country and given his old man a few years to recover. "Church Street once serviced needs, now it services desires," Mr. Twitchell said. The optician's shop is gone, and so is Sears and JCPenney. He pointed out the Ann Taylor store, where the Masonic temple used to be. A chic French children's store sits in the old bank. "The key to modern luxe is that **most of us can have a bit of it on the plate**," Mr. Twitchell said. "I can't own a Lexus, but I can rent one. I can't go to Bermuda for a winter, but I can have a time share for a weekend. I don't own a yacht but I'm taking a Princess cruise." *The process of democratization* is mirrored in Mr. Twitchell's family history. His great-grandfatherAndrew A. Buell made his fortune building wooden boxes from Adirondack lumber. Driving up Lodge Road to "the hill," where Mr. Buell built a red stone Romanesque mansion with a copper-topped tower, Mr. Twitchell passed the Burlington Country Club, which his grandfather Marshall Coleman Twitchell helped found. The family's sprawling former home is now a women's dormitory, and the surrounding 66-acre estate serves as the University of Vermont's Redstone campus. A couple of blocks from the hilltop, both in location and status, is the relatively modest white wooden house that Mr. Twitchell, the son of Marshall Coleman Twitchell Jr., an ophthalmologist, and his sisters grew up in. At that time, said Mr. Twitchell, now 59, one's social place was determined by birth, or "what I call the lucky sperm culture." Today, birth-ordained status has been supplanted by store-bought status. Mr. Twitchell has no regrets about this lost world. "Though I was a beneficiary of it, I'm glad it's over," he said. "There is something refreshing about the material world that downtown Burlington opened up." Compared to the traditional ways of marking status -- race, parentage, accent, private schools -- one's purchases are a preferable way of telling who's up and who's down, he said. On that point, Mr. Twitchell is not alone. Gary Cross, a historian at Penn State University, said that consumer culture in one sense is "democracy's highest achievement, giving meaning and dignity to people when workplace participation, ethnic solidarity and even representative democracy have failed." Still, as Mr. Cross argued in 2000 in "An All-Consuming Century: Why Commercialism Won in Modern America," "most of us, no matter our politics, are repulsed by the absolute identity of society with the market and individual choice with shopping." True enough, Mr. Twitchell readily conceded. But he maintains the critics are missing the essential characteristic of luxury spending. "Luxury has very little to do with money or things," he said. "Luxury is a story we tell about things," and it's ultimately the story we are after. That is, our purchases are imbued with elaborate narratives about the life we want to live. It is advertisers and manufacturers who give objects meaning by constructing the stories about them, Mr. Twitchell said, and that meaning is as much a source of desire as the object itself. Think of the elaborate fantasies spun by marketers like Ralph Lauren and Martha Stewart. It goes for whatever you're buying, whether it's Jimmy Choo, Birkenstock or Payless shoes. When Mr. Twitchell, a dedicated factory outlet shopper, flashes his member's card at Sam's Club, "the allure is not just that I'm saving money," he said, "but that I'm smarter and savvier, that I'm duping the duper." Or consider an experiment he performed on his colleagues. He told some English professors that he was going to spend $6,000 to buy an 1850 copy of Wordsworth's "Prelude." Brilliant idea, everyone said. A few days later, Mr. Twitchell told the same colleagues that he had changed his mind and was going to use the $6,000 to buy a used BMW. "I could have said that I was investing in a collection of Beanie Babies comics or a diamond pinkie ring for the shocked response that I got," he wrote. Critics of consumption will say they are making a moral argument, Mr. Twitchell said, but "often what is condemned as luxury is really just a matter of taste."To Mr. Twitchell, as long as human beings crave sensation, they will desire material goods and luxurious ones at that, Wall Street scandals notwithstanding. "If this year it's Enron and WorldCom, then another year it was Long-Term Capital Management," he said. Recessions may come and go, but consumption is eternal. The ad slogan is right: Diamonds are forever.

#### SMR’s are key to successful desalination – solves water wars

Solan et al 10 – Assistant Professor of Public Policy & Administration and Director of the Energy Policy Institute at Boise State University (David, June. “Economic and Employment Impacts of Small Modular Nuclear Reactors.” Energy Policy Institute, Center for Advanced Energy Studies. http://epi.boisestate.edu/media/3494/economic%20and%20employment%20impacts%20of%20smrs.pdf)

Besides electricity generation, additional applications may be well-suited for SMR systems in the future. While the applicability of nuclear energy to additional applications is not dependent on facility size, the actual use of large nuclear facilities does not occur due to economic considerations. Currently, only a few countries utilize nuclear energy for non-generation purposes, primarily desalination and district heating (IAEA, 2008). A brief overview of the application possibilities for SMRs is provided below. Desalination.&&The IAEA has identified desalination as possibly the leading non-electric civilian use for nuclear energy. Water scarcity is becoming an increasingly problematic global issue in both developed and developing countries. As noted in an IAEA (2007) report, Because of population growth, surface water resources are increasingly stressed in many parts of the world, developed and developing regions alike. Water stress is counter to sustainable development; it engenders disease; diverts natural flows, endangering flora and fauna of rivers, lakes wetlands, deltas and oceans; and it incites regional conflicts over water rights. In the developing world, more than one billion people currently lack access to safe drinking water; nearly two and a half billion lack access to adequate sanitation services. This would only get worse as populations grow. Water stress is severe in the developed world as well…In light of these trends, many opportunities in both developed and developing countries are foreseen for supply of potable water generated using nuclear process heat or off-peak electricity (p. 23).

#### Extinction

Weiner 90 (Jonathan, Pulitzer Prize winning author, “The Next One Hundred Years”, p. 270)

If we do not destroy ourselves with the A-bomb and the H-bomb, then we may destroy ourselves with the C-bomb, the Change Bomb. And in a world as interlinked as ours, one explosion may lead to the other. Already in the Middle East, from North Africa to the Persian Gulf and from the Nile to the Euphrates, tensions over dwindling water supplies and rising populations are reaching what many experts describe as a flashpoint. A climate shift in that single battle-scarred nexus might trigger international tensions that will unleash some of the 60,000 nuclear warheads the world has stockpiled since Trinity.

#### Collapse is worse for every impact – try or die flips aff

**Monbiot 9** (George, Columnist – The Guardian, held visiting fellowships or professorships at the universities of Oxford (environmental policy), Bristol (philosophy), Keele (politics), Oxford Brookes (planning), and East London (environmental science), “Is There Any Point in Fighting to Stave Off Industrial Apocalypse?,” Guardian, 8-17, http://www.guardian.co.uk/commentisfree/cif-green/2009/aug/17/environment-climate-change)

The interesting question, and the one that probably divides us, is this: to what extent should we welcome the likely collapse of industrial civilisation? Or more precisely: to what extent do we believe that some good may come of it? I detect in your writings, and in the conversations we have had, an attraction towards – almost a yearning for – this apocalypse, a sense that you see it as a cleansing fire that will rid the world of a diseased society. If this is your view, I do not share it. I'm sure we can agree that the immediate consequences of collapse would be hideous: the breakdown of the systems that keep most of us alive; mass starvation; war. These alone surely give us sufficient reason to fight on, however faint our chances appear. But even if we were somehow able to put this out of our minds, I believe that what is likely to come out on the other side will be worse than our current settlement. Here are three observations: 1 Our species (unlike most of its members) is tough and resilient; 2 When civilisations collapse, psychopaths take over; 3 We seldom learn from others' mistakes. From the first observation, this follows: even if you are hardened to the fate of humans, you can surely see that our species will not become extinct without causing the extinction of almost all others. However hard we fall, we will recover sufficiently to land another hammer blow on the biosphere. We will continue to do so until there is so little left that even Homo sapiens can no longer survive. This is the ecological destiny of a species possessed of outstanding intelligence, opposable thumbs and an ability to interpret and exploit almost every possible resource – in the absence of political restraint. From the second and third observations, this follows: instead of gathering as free collectives of happy householders, survivors of this collapse will be subject to the will of people seeking to monopolise remaining resources. This will is likely to be imposed through violence. Political accountability will be a distant memory. The chances of conserving any resource in these circumstances are approximately zero. The human and ecological consequences of the first global collapse are likely to persist for many generations, perhaps for our species' remaining time on earth. To imagine that good could come of the involuntary failure of industrial civilisation is also to succumb to denial. The answer to your question – what will we learn from this collapse? – is nothing. This is why, despite everything, I fight on. I am not fighting to sustain economic growth. I am fighting to prevent both initial collapse and the repeated catastrophe that follows. However faint the hopes of engineering a soft landing – an ordered and structured downsizing of the global economy – might be, we must keep this possibility alive. Perhaps we are both in denial: I, because I think the fight is still worth having; you, because you think it isn't.

#### Growth is key to solve warming – Kuznets curve prove

**Orubu 11** (Dr. Christopher, Professor of Economics – Delta State University, “Environmental Quality and Economic Growth: Searching for Environmental Kuznets Curves for Air and Water Pollutants in Africa,” Energy Policy, 39(7), July, 4178–4188, ScienceDirect)

The EKC hypothesis places the relationship between environmental quality and economic growth within the framework of the development continuum. Specifically, observed historical facts suggest that economic growth, taking place at the intermediate stage does increase pollution, hence deterioration in environmental quality. However, the capacity to offset this relationship tends to increase in later stages of the growth process. [Grossman and Krueger, 1991] and [Grossman and Krueger., 1995] argue that during the initial stage of the developmental process, when the typical economy is dominated by agriculture and allied activities, pollution intensity will be generally low. But as the economy moves into heavy industry, pollution will tend to increase. Furthermore, as the economy shifts into high technology and services, pollution intensity will tend to fall. What is implied in this observation is that pollution intensity is likely to be increasing in countries at the lowest rung of the development ladder, up to the intermediate stage, before possibly declining after reaching a threshold point. A number of factors are commonly advanced as the proximate determinants of the EKC relationship (Copeland and Taylor, 2004). The most important explanations relate to the scale, composition, and technology effects. The scale effect arises from the fact that increasing the output of the economy requires the use of more inputs in the form of material and natural resources. At the same time, more output implies more wastes and emissions as by-products, which contribute to environmental degradation. Economic growth, which necessarily involves expanding the scale of production therefore, has the potential of adversely affecting the quality of the environment. Scale is ultimately determined by the total amount of material inputs into the process of producing goods and services as well as the volume of output that is consumed and fed into the environment by way of pollution and waste. Essentially, the scale effect encapsulates two types of environmental pressure – one arising from increased use of resources, which has a depletion effect – and the other from increased associated waste, with a pollution effect. It is equally true that the scale effect works to reduce environmental degradation or pollution at higher levels, as certain pollution control measures may not be practicable at small scales of production. More specifically, at higher levels of output (hence income), it becomes relatively cheaper to reduce pollution, and producers are more easily able and willing to adopt pollution-reducing measures and technologies. The composition effect has to do with the proportion of each type of productive activity in the volume of the economy's output. As noted by Stagl (1999), the common trajectory of development has been that societies progress from subsistence agriculture, which is less polluting, to more material and energy-intensive modes of agricultural production, agro-processing and light manufacturing that are relatively more pollution-intense. Pollution intensity is highest as the economy moves into the stage of heavy industry, and finally declines as it shifts toward high technology, knowledge, and service-based industries. Within this compositional continuum, pollution per unit of output will tend to rise as the economy progresses on the development ladder, but eventually falls as structural changes take place over time. During the earlier stages of development; the composition effect tends to reinforce environmental pressures arising from increasing scale, while tending to counteract it at higher levels of development. It could therefore be argued that the composition effect works to reduce environmental degradation over time, by reducing the relative size of those sectors of the economy that produce large residuals, and by expanding those sectors that produce relatively less residuals per unit of output. The technological effect arises from the impact of improvements in the state of technology. Generally, improvements in processing technology reduces pollution indirectly by reducing the consumption of material inputs, while technological advancement makes it possible to adopt better pollution control techniques. Thus the technological effect works through productivity and emissions-related advantages. In these ways, it is possible for a naturally heavily polluting industry to record declining emissions even as output rises, provided the increase in output comes from factories using less polluting production processes. In principle, the technological effect works to improve environmental quality as economic growth progresses by reducing the residuals intensity of production through the invention and adoption of new technologies and standards, which leave smaller amounts of residuals per unit of output produced and through changes in input mixes that result from substituting less environmentally damaging inputs for more injurious types.

\*\*environmental Kuznets curve (EKC)

#### Consumption good – western civilization wouldn’t exist without it

Glover and Economides 11 (– http://www.globalwarming.org/2011/12/12/energy-climate-wars-energy-consumption-is-good/

Without modern energy Western civilization would grind to a halt, literally. Your refrigerator would no longer keep cheap food chilled for weeks and months; you would need fresh food daily, with all the extra costs and the journeys that entails. Private cars would be obsolete. You would have to read by candlelight. Your home would have to be heated by burning wood or, if you had a local source of hydrocarbon fuels—what we call primary—burning oil, gas, or coal. In short, you would be subject to the technology of the mid-nineteenth century. At this point, an extreme idealist may naively insist that life was better in former generations than today. A less extreme idealist may claim that hydrocarbon fuels are no longer necessary and that we could switch, with the right social and political will, to alternative energy sources. The argument runs that, if only we could divest ourselves of our “addiction” to oil, gas, and coal (“fossil” fuels) we could, at a stroke, clean up our environment by making a wholehearted commitment to renewable, clean and “free” energy, wind, wave, hydro, solar, and geothermal power to solve our future energy needs. Only one problem with that: there’s more chance of Donald Duck becoming president of the United States. Just try to make that particular energy switchover and stand back and watch the lights go out all over the world. True, some radicals want it that way. They think it would be “quaint” to return to dark ages lifestyle, the same “quaint,” often poverty-stricken, lifestyles to which they would doom other societies who today are desperate to industrialize, as the West has. This is an easy pastime, of course, when you are an armchair eco-liberal enjoying the fruits of a post-industrial society. The reality of doing that which today’s anti-hydrocarbon eco-warriors demand in their relentless, ultimately pointless, war on carbon is that the developed nations would simply find themselves among the ranks of those nations whose low energy consumption meant that they never came out of the “dark ages” in the first place. While some environmental activists may perceive the “old ways” as simple, something to hanker after, they conveniently forget the high infant mortality rates, sickness, pollution, and shortness of life that went with that “quaint” lifestyle, a lifestyle that for many even today is an all too unpleasant, even deadly, daily reality. Ironic, is it not, that in an age when we live longer, healthier, more pollution-free lives than countless previous generations, we should have become even more angst-ridden and obsessive about our health and our environment? Yet such concerns, suffused with an unhealthy self-injected dose of idealism, are not only driving some modern Western governments to make mostly unnecessary and uneconomic social changes, but are also powerfully influencing global and national policies as they affect the world’s most important commodity: energy. The truth is, we owe our longer, greater, healthier life, indeed our economic prosperity in the West generally, to the Industrial Revolution and the economic development that resulted from it. And that prosperity is a direct consequence of our growing energy consumption of energy. Like it or not, the great energy-driven reality of our age is, whatever idealistic social engineers may desire, that modern civilization (and those societies currently undergoing their own industrialization) remain wholly dependent upon the per capita consumption of primary energy of oil, gas, and coal. What is more, they will continue to do so for decades to come…. In the modern world, there is a direct correlation between the level of energy consumption and national wealth creation. Indeed the relative wealth and poverty of nations is entirely definable by its per capita energy consumption. It is equally axiomatic that demand for energy is connected to wealth; the corollary is also true: use of energy promotes and generates wealth. Thus the perennial vilification of the US as the world’s largest consumer of energy (25 percent of global use) is wholly misguided, in that it is largely based on the fallacy that US energy demand is only the result of its wealth. Rather, energy demand is the cause of US wealth, as it is elsewhere. This is vital to understand. Especially in the light of the constant assertions made about the need to cut energy consumption when the right and proper aspiration of any modernizing country and government is to promote and sponsor the wealth, welfare, and prosperity of its constituent peoples. To achieve this, nations clearly have to increase their energy consumption. After all, isn’t an ever-improving standard of living and greater prosperity the goal to which every caring family and nation aspires?

#### Alt fails and no impact

Datschefski 4 [Edwin Datschefski BioThinking International, January 15th, 2004, <http://www.biothinking.com/consume.pdf>, Chetan]

It seems that it's natural to use energy, and the more the better. Ecologists like Lotka (1922) and Odum and Pinkerton (1955) suggested that the biological systems that survive are those that develop the most power inflow and u se it to best meet their needs for survival. Schneider and Kay (1994) proposed that a better description of these "power laws" would be that biological systems develop in a manner as to "increase their degradation rate, and that biological growth, ecosystem development and evolution represent the development of new dissipative pathways." As ecosystems develop or mature they tend to increase their total dissipation, and develop more complex structures with greater diversity, more cycling, more energy flow and more hierarchical levels. So ecological theory shows us that a complex adaptive system like the current industrial system will inherently evolve to maximise throughput of energy and materials. I'm not disputing the benefits of efficiency, or the limits to growth. But there does seem to be a lot of (in my view) futile effort directed at encouraging people to consume l ess. People are natural-born shoppers. I defy anyone reading this to claim that they have deprived themselves of that hifi, boat, shoes, camera, etc. that they really fancied. You also can't solve environmental problems by simply using less. There is a fundamental package of food and goods that a household requires, and while it's possible to make the footprint of that package smaller, we're still looking at about 7 tonnes of stuff per household per year, which is about 140 tonnes including embodied energy and mass. You can avoid this shooting up to 10 or 15 tonnes of stuff by renting and buying durable products and so on, but even the thriftiest household will still have a basic consumption requirement. The focus for improvement must therefore be on changing product and process design so that materials flow is more systemic. All products are ultimately disposable. We just need all of them to be designed to go back and become food for another system. So don't feel guilty about buying the products you have to get. Buy with caution and respect for the materials used. And divert the energy of your concerns into action -- tell the manufacturer of your new camera / car / bed etc. about how they can make it better. Most manufacturers think they are doing perfectly OK if they are complying with the law and have no -one demonstrating outside their head office. Going 100% cyclic solar and safe simply isn't on the agenda yet. So what if every member of every environment group (that's about 5 to 50% of the population, depending what country you live in) asked the manufacturers of the myriad of products that they

#### No resource impact – natural resources will be available

Sagoff 97 (Mark – Pew Scholar in Conservation and the Environment and awarded a Fellowship at the Woodrow Wilson International Center for Scholars. He is a Fellow of the American Association for the Advancement of Science and of the Hastings Center. , “Do We Consume Too Much”, June 1997, <http://www.theatlantic.com/past/docs/issues/97jun/consume.htm>)

IN the 1970s Paul Ehrlich, a biologist at Stanford University, predicted that global shortages would soon send prices for food, fresh water, energy, metals, paper, and other materials sharply higher. "It seems certain," Paul and Anne Ehrlich wrote in The End of Affluence (1974), "that energy shortages will be with us for the rest of the century, and that before 1985 mankind will enter a genuine age of scarcity in which many things besides energy will be in short supply." Crucial materials would near depletion during the 1980s, Ehrlich predicted, pushing prices out of reach. "Starvation among people will be accompanied by starvation of industries for the materials they require." Things have not turned out as Ehrlich expected. In the early 1990s real prices for food overall fell. Raw materials -- including energy resources -- are generally more abundant and less expensive today than they were twenty years ago. When Ehrlich wrote, economically recoverable world reserves of petroleum stood at 640 billion barrels. Since that time reserves have increased by more than 50 percent, reaching more than 1,000 billion barrels in 1989. They have held steady in spite of rising consumption. The pre-tax real price of gasoline was lower during this decade than at any other time since 1947. The World Energy Council announced in 1992 that "fears of imminent [resource] exhaustion that were widely held 20 years ago are now considered to have been unfounded." The World Resources Institute, in a 1994-1995 report, referred to "the frequently expressed concern that high levels of consumption will lead to resource depletion and to physical shortages that might limit growth or development opportunity." Examining the evidence, however, the institute said that "the world is not yet running out of most nonrenewable resources and is not likely to, at least in the next few decades." A 1988 report from the Office of Technology Assessment concluded, "The nation's future has probably never been less constrained by the cost of natural resources." It is reasonable to expect that as raw materials become less expensive, they will be more rapidly depleted. This expectation is also mistaken. From 1980 to 1990, for example, while the prices of resource-based commodities declined (the price of rubber by 40 percent, cement by 40 percent, and coal by almost 50 percent), reserves of most raw materials increased. Economists offer three explanations. First, with regard to subsoil resources, the world becomes ever more adept at discovering new reserves and exploiting old ones. Exploring for oil, for example, used to be a hit-or-miss proposition, resulting in a lot of dry holes. Today oil companies can use seismic waves to help them create precise computer images of the earth. New methods of extraction -- for example, using bacteria to leach metals from low-grade ores -- greatly increase resource recovery. Reserves of resources "are actually functions of technology," one analyst has written. "The more advanced the technology, the more reserves become known and recoverable." Second, plentiful resources can be used in place of those that become scarce. Analysts speak of an Age of Substitutability and point, for example, to nanotubes, tiny cylinders of carbon whose molecular structure forms fibers a hundred times as strong as steel, at one sixth the weight. As technologies that use more-abundant resources substitute for those needing less-abundant ones -- for example, ceramics in place of tungsten, fiber optics in place of copper wire, aluminum cans in place of tin ones -- the demand for and the price of the less-abundant resources decline. One can easily find earlier instances of substitution. During the early nineteenth century whale oil was the preferred fuel for household illumination. A dwindling supply prompted innovations in the lighting industry, including the invention of gas and kerosene lamps and Edison's carbon-filament electric bulb. Whale oil has substitutes, such as electricity and petroleum-based lubricants. Whales are irreplaceable. Third, the more we learn about materials, the more efficiently we use them. The progress from candles to carbon-filament to tungsten incandescent lamps, for example, decreased the energy required for and the cost of a unit of household lighting by many times. Compact fluorescent lights are four times as efficient as today's incandescent bulbs and last ten to twenty times as long. Comparable energy savings are available in other appliances: for example, refrigerators sold in 1993 were 23 percent more efficient than those sold in 1990 and 65 percent more efficient than those sold in 1980, saving consumers billions in electric bills. Amory Lovins, the director of the Rocky Mountain Institute, has described in these pages a new generation of ultralight automobiles that could deliver the safety and muscle of today's cars but with far better mileage -- four times as much in prototypes and ten times as much in projected models (see "Reinventing the Wheels," January, 1995, Atlantic). Since in today's cars only 15 to 20 percent of the fuel's energy reaches the wheels (the rest is lost in the engine and the transmission), and since materials lighter and stronger than steel are available or on the way, no expert questions the feasibility of the high-mileage vehicles Lovins describes. Computers and cameras are examples of consumer goods getting lighter and smaller as they get better. The game-maker Sega is marketing a hand-held children's game, called Saturn, that has more computing power than the 1976 Cray supercomputer, which the United States tried to keep out of the hands of the Soviets. Improvements that extend the useful life of objects also save resources. Platinum spark plugs in today's cars last for 100,000 miles, as do "fill-for-life" transmission fluids. On average, cars bought in 1993 have a useful life more than 40 percent longer than those bought in 1970. As lighter materials replace heavier ones, the U.S. economy continues to shed weight. Our per capita consumption of raw materials such as forestry products and metals has, measured by weight, declined steadily over the past twenty years. A recent World Resources Institute study measured the "materials intensity" of our economy -- that is, "the total material input and the hidden or indirect material flows, including deliberate landscape alterations" required for each dollar's worth of economic output. "The result shows a clearly declining pattern of materials intensity, supporting the conclusion that economic activity is growing somewhat more rapidly than natural resource use." Of course, we should do better. The Organization for Economic Cooperation and Development, an association of the world's industrialized nations, has proposed that its members strive as a long-range goal to decrease their materials intensity by a factor of ten. Communications also illustrates the trend toward lighter, smaller, less materials-intensive technology. Just as telegraph cables replaced frigates in transmitting messages across the Atlantic and carried more information faster, glass fibers and microwaves have replaced cables -- each new technology using less materials but providing greater capacity for sending and receiving information. Areas not yet wired for telephones (in the former Soviet Union, for example) are expected to leapfrog directly into cellular communications. Robert Solow, a Nobel laureate in economics, says that if the future is like the past, "there will be prolonged and substantial reductions in natural-resource requirements per unit of real output." He asks, "Why shouldn't the productivity of most natural resources rise more or less steadily through time, like the productivity of labor?"

### 2AC – Elections

#### Won’t go nuclear

Dyer 2 (Gwynne, Ph.D. in War Studies – University of London and Board of Governors – Canada’s Royal Military College, The Coming War, Queen’s Quarterly, December, Lexis)

All of this indicates an extremely dangerous situation, with many variables that are impossible to assess fully. But there is one comforting reality here: **this will not become World War III**. Not long ago, wars in the Middle East always went to the brink very quickly, with the Americans and Soviets deeply involved on opposite sides, bristling their nuclear weapons at one another. And for quite some time we lived on the brink of oblivion. But that is over. **World War III has been cancelled, and I don't think we could pump it up again no matter how hard we tried**. The connections that once tied Middle Eastern confrontations to a global confrontation involving tens of thousands of nuclear weapons have **all been undone**. The East-West Cold War is finished. The truly dangerous powers in the world today are the industrialized countries in general. We are the ones with the resources and the technology to churn out weapons of mass destruction like sausages. But the good news is: we are out of the business.

#### Their guardian card SUCKS

#### Israel will wait until after the election in an attempt to convince the US to back a strike

The Guardian, 9-4-2012

Julian Borger, staff writer, “Israeli war drums muted on Iran”, <http://www.guardian.co.uk/world/julian-borger-global-security-blog/2012/sep/04/israel-iran-nuclear?newsfeed=true> (JW PRE)

The odds against an Israeli military strike on Iran in the next few months appear to be lengthening, and perhaps the strongest evidence comes from none other than Binyamin Netanyahu, the man who has beaten the war drums loudest over the past few months.

By calling for clear international (read US) 'red lines' containing Iran's nuclear programme, the Israeli prime minister has put the focus back on diplomacy, and given himself a ladder to climb down from his earlier rhetoric.

Meanwhile, Ehud Barak, the defence minister who had claimed that Iran was approaching a 'zone of immunity' beyond which it could not be stopped, is now reported to be against an Israeli attack (£) before the coming US presidential elections.

Consequently, Mike Rogers, the head of the US House intelligence committee returned from a visit to Israel with the conviction that Israel will not launch an attack before the US vote in November. According to The Hill online, the Republican congressman said the Israeli threat had lifted for now, "because I think they believe that maybe after the election they could talk the United States into cooperating".

Such cooperation would be more likely in the event of a Mitt Romney victory in November, and with the poor state of the US economy, that seems increasingly possible. Netanyahu would look particularly foolish if he led Israel into a conflict on its own, just weeks before a close US ally came to power in Washington. The former CIA chief and current Romney adviser, Michael Hayden, was in Israel yesterday echoing the Obama administration message that military action can wait.

Writing in Haaretz, the columnist Amos Harel, notes that Israel Hayom (£) , owned by the American casino magnate and one of Romney's biggest backers, Sheldon Adelson, and which is widely viewed as a Netanyahu mouthpiece, has considerably toned down its coverage of Iran's nuclear programme in recent days. Harel's reading is that Netanyahu and Barak have overplayed their hand in poker terms, and have realised they have damaged Israel's relationship with the US for little or no strategic gain.

#### Romney will win --- Electoral College models prove.

**Hoover**, **10/5**/2012 (Tim – staff writer for the Denver Post, CU professors double-down on prediction of Romney win due to economic factors, The Denver Post, p. <http://blogs.denverpost.com/thespot/2012/10/05/cu-professors-doubledown-prediction-romney-win-due-economic-factors/83220/>)

Remember the University of Colorado professors who predicted Mitt Romney would win the election because of economic factors – despite national pollsters predicting President Barack Obama well ahead? Well, political science professors Kenneth Bickers of CU-Boulder and Michael Berry of CU Denver have updated their model and say the new data still shows a Romney win. According to the updated analysis, Romney would get 330 Electoral College votes to Obama’s 208 votes, even less than the 218 the pair predicted during the summer and still well short of the 270 needed to win. Again, it’s a huge disconnect from national punditry which still shows an easy Obama victory (though experts say new polling will have to gauge the effect of Romney’s success during Wednesday’s debate). “We continue to show that the economic conditions favor Romney even though many polls show the president in the lead,” Bickers said. “Other published models point to the same result, but they looked at the national popular vote, while we stress state-level economic data.” The pair’s analysis relies on state and national unemployment figures and changes in real per capita income, among other factors. Their updated analysis includes unemployment rates from August instead of May, and has changes in per capita income from the end of June rather than March. The duo predicts Romney winning all but three of 13 battleground states.

#### Fiscal responsibility link is from May, and Obama’s spent money since then

**Double bind –**

**Link is nonunique – extend the energy.gov evidence – Obama has already publicly endorsed SMRs, supporting DOE loan guarantees, so he should already be losing and should’ve already triggered the fiscal responsibility link**

**If they win he’s not losing, that just proves nuclear power isn’t a key issue for the election OR that obama’s not tied to agency action which means the DoD shields perception**

**Heslop ‘11** (Janelle, Analyst at GreenOrder and LRN Advsior Group, “3 Reasons Why the Military is Leading the Clean-Energy Change” 10/11/11)

3. **Even while national progress on energy policy stagnates in the midst of partisan debate, the military has the ability to make large, impactful and immediate investments in clean energy**. **This is because the military's commitment to renewable energy adoption, though fiscally subject to congressional approval, is not dictated by the same political discourse that is hindering the creation of a national energy bill.** As a result, **the military does not need to wait for the political debate to complete its course,** **and with its large purchasing power can confidently begin** [**investing**](http://www.greenbiz.com/blog/2011/10/12/3-reasons-why-military-is-leading-clean-energy-charge?page=0%2C1) **in a clean energy future now**. In fact, the military's goals on energy are far more aggressive than what seems politically feasible in the civilian world in the near term and will likely stay that way for some time.

#### The DoD spends the money not Obama so he looks fiscally responsible

#### Federal SMR loans coming—announced in September

Energy Collective 12 [Energy Collective, 7/26/12, Race for DOE SMR money heats up, theenergycollective.com/dan-yurman/97081/race-doe-smr-money-heats]

The Department of Energy is reviewing proposals from B&W and several other SMR firms to be granted up to $452 million over five years to support SMR engineering and licensing work. The agency will make up to two awards by the end of September this year.

**Overwhelming public support for nuclear energy - multiple polls**

**WNA 12** (WNA is the World Nuclear Association. “US Nuclear Power Policy” August, 2012. http://www.world-nuclear.org/info/inf41\_US\_nuclear\_power\_policy.html)

**Public opinion regarding nuclear power has generally been fairly positive, and has grown more so as people have had to think about security of energy supplies. Different polls show continuing increase in public opinion favorable to nuclear power in the USA. More than three times as many strongly support nuclear energy than strongly oppose it**. Two-thirds of self-described environmentalists favor it. A May 2008 survey (N=2925) by Zogby International showed 67% of Americans favored building new nuclear power plants, with 46% registering strong support; 23% were opposed[10](http://www.world-nuclear.org/info/inf41_US_nuclear_power_policy.html#References). Asked which kind of power plant they would prefer if it were sited in their community, 43% said nuclear, 26% gas, 8% coal. Men (60%) were more than twice as likely as women (28%) to be supportive of a nuclear power plant. A March 2010 Bisconti-GfK Roper survey showed that strong public support for nuclear energy was being sustained, with 74% in favor of it[11](http://www.world-nuclear.org/info/inf41_US_nuclear_power_policy.html#References). In particular, **87% think nuclear will be important in meeting electricity needs in the years ahead, 87% support license renewal for nuclear plants, 84% believe utilities should prepare to build more nuclear plants, 72% supported an active federal role in encouraging investment in "energy technology that reduces greenhouse gases", 82% agree that US nuclear plants are safe and secure, 77% would support adding a new reactor at the nearest nuclear plant, and 70% say that USA should definitely build more plants in the future.** Only 10% of people said they strongly opposed the use of nuclear energy. In relation to recycling used nuclear fuel, 79% supported this (contra past US policy), and the figure rose to 85% if "a panel of independent experts" recommended it. Although 59% were confident that used reactor fuel could be stored safely at nuclear power plant sites, 81% expressed a strong desire for the federal government to move used nuclear fuel to centralized, secure storage facilities away from the plant sites until a permanent disposal facility is ready. Half of those surveyed considered themselves to be environmentalists. A February 2011 Bisconti-GfK Roper survey showed similar figures, and that 89% of Americans agree that all low-carbon energy sources – including nuclear, hydro and renewable energy – should be taken advantage of to generate electricity while limiting greenhouse gas emissions. Just 10% disagreed. Also some **84% of respondents said that they associate nuclear energy "a lot" or "a little" with reliable electricity;** 79% associate nuclear energy with affordable electricity; 79% associate nuclear energy with economic growth and job creation; and 77% associate nuclear energy and clean air. A more general March 2010 Gallup poll (N=1014) on energy showed 62% in favor of using nuclear power, including 28% strongly so, and 33% against, the most favorable figures since Gallup began polling the question in 1994. However, only 51% of Democrat voters were in favor[12](http://www.world-nuclear.org/info/inf41_US_nuclear_power_policy.html#References). An early March 2011 Gallup poll just before the Fukushima accident showed 57% in favor and 38% against, and in March 2012 (N=1024) still 57% in favor with 40% against (men: 72%-27%, women 42%-51%). **Regarding plant safety, the polls showed consistent 56-58% positive views over 2009-12, but men-women split similar. A survey conducted in September 2011** by Bisconti Research Inc. with GfK Roper **showed that although support for nuclear power decreased following the Fukushima accident** and compared with a year earlier (a survey carried out in March 2010 by Bisconti Research found 74% of Americans favored nuclear power), **62%** of the 1000 **adults** surveyed in the latest poll **were supportive of utilizing nuclear power** while 35% expressed opposition. The survey found that **82% of Americans believed that lessons had been learned from** Fukushima and 67% of respondents considered US nuclear power plants safe (the same level as reported one month before the nuclear accident in Japan occurred). Also **85% of said that an extension of commercial operation should be granted to those plants that comply with federal safety standards**, and 59% believed more nuclear power plants should definitely be built in the future, while 75% contend that “Electric utilities should prepare now so that new nuclear power plants could be built if needed in the next decade.” Finally, further expansion of the site of the nearest already operating nuclear power plant is supported by 67% and opposed by 28%. By February 2012 support had increased slightly to 64% supported using nuclear power, while 33% opposed it. Some 81% of respondents believed that nuclear energy will be important in meeting the USA's future electricity needs (compared with 80% in September), and 82% thought the USA should "take advantage of all low-carbon energy sources, including nuclear, hydro and renewable energy." Significantly, 74% believed that nuclear power plants operating in the USA are safe, up from 67% in both 2011 surveys. However, a Harris survey in February 2012 (N=2056) showed that only 40% of US adults believed that the benefits of nuclear outweigh its risks, while 41% thought the reverse. A similar poll conducted in 2011 before the Fukushima accident occurred, indicated that 42% thought that the benefits outweighed the risks, while 37% believed the opposite. In a 2009 poll, 44% thought the benefits outweighed the benefits, while 34% thought they did not. The southern states had the highest percentage of people believing the benefits outweigh the risks (at 43%), compared with 33% in the East and 41% in the Midwest and West. Some 42% of Americans thought that the benefits of using coal outweighed the risks (up from 38% positive in 2011), while 40% said the risks outweighed the benefits.

**Plan is as a foreign policy win – seen as a move towards energy independence**

**More than half the country support nuclear expansion – its key to job growth**

**Whitman 8-13** [Christine Todd Whitman CASEnergy Co-Chair, Former EPA Administrator and New Jersey Governor, “Nuclear Power Garners Bipartisan Support”, August 13th, 2012, <http://energy.nationaljournal.com/2012/08/finding-the-sweet-spot-biparti.php>, Chetan]

**The energy policy that I’ve seen garner consistent support from the left and the right** over the years is also one with which I’m deeply familiar. This policy **involves** building a diverse portfolio of low-carbon energy sources, featuring a **renewed investment in nuclear energy. And it’s not just policymakers** from both sides of the aisle who support nuclear energy – **it’s everyday energy consumers** as well. According to a Gallup poll conducted in March of this year, **nearly 60 percent of Americans support the use of nuclear energy** to meet our nation’s electricity needs, **and a majority support expanding America’s use of nuclear power**. **Next-generation** nuclear energy **projects are underway in Georgia, South Carolina and Tennessee, thanks** in part **to steady popular support**, as well as support from President Obama, bipartisan congressional leaders and other policymakers at the federal and state levels. **An additional 10 combined construction and operating licenses** for 16 plants **are under review** by the Nuclear Regulatory Commission. This support is founded in the fact that nuclear energy, safely managed, provides an efficient, reliable source of energy. In fact, nuclear power is the only baseload source of carbon-free electricity. It provides nearly two-thirds of the nation’s low-carbon electricity, and will continue to be an important source of energy well into the future given the advent of innovative large and small reactor designs. The use of nuclear energy prevents more than 613 million metric tons of carbon dioxide every year – as much CO2 as is emitted by every passenger car in America. Bipartisan **support for nuclear energy** also st**ems from the boost that it provides to local job markets and to local and state economies**. As nuclear energy expands and as more than half of the industry workforce approaches retirement, **the industry offers growing opportunities for well-paying careers**. The industry already supports more than 100,000 jobs, and the combination of retirements and the construction of **new facilities could create as** **many as 25,000 new jobs in the near term**. What’s more, the **construction of a nuclear facility spurs the creation of other local jobs in industries ranging from manufacturing to hospitality. The industry generates** between $40 and $50 billion in revenue and electricity sales, or **some $470 million in total economic output** and $40 million in labor wages at each U.S. facility every year. **That’s a powerful economic engine and a positive impact that leaders are embracing.** As America refocuses on cleaner energy policies that help boost our economy, nuclear power is becoming a clear and critical part of a secure, sustainable energy portfolio. **We need electricity and we want clean air; with nuclear energy we can have both.** It’s a source of power that leaders on both sides of the aisle can support.

**Disad’s not intrinsic – logical policymaker can do the plan and not allow relations with Russia to collapse**

**SMRs address the only public concern about nuke power**

**Worthington 11** [David Worthington – Contributing Editor to SmartPlanet, “Small nuclear reactors: America’s energy future?” December 18th, 2011, <http://www.smartplanet.com/blog/intelligent-energy/small-nuclear-reactors-americas-energy-future/11412>, Chetan]

**Small Modular Reactor** (SMR) **concepts could help make future nuclear power plants in the United States safer** **and easier** to construct **while helping to recycle stockpiles of existing uranium fuel waste**. **The general idea** behind SMRs **is to cluster together many small reactors** to match the output of obsolete coal or nuclear facilities. Steam output from many modules would power a common generator to produce electricity. **Each module would be equipped with its own containment assembly** that’s housed in a pre-fabricated unit. Think of it as a nuclear assembly line. A module would be small enough to be shipped to a new reactor build by rail or truck rather than assembly components inside of a containment dome onsite. All-in-one fabrication would streamline nuclear power plant construction by several years, said Steve Rus, executive director for nuclear technologies at Black & Veatch. SMRs would be housed in a steel and concrete embedment that resides below grade. B&V has had a sizeable nuclear business since World War II. Small modular reactor designs are also supported by the Obama administration, which sees nuclear power as a way to reduce carbon emissions. However, **the public is understandably warier of nuclear power post Fukushima, and would need some reassurances of its safety. The SMR addresses the greatest perceived danger - nuclear meltdowns** – a threat that has loomed since the dawn of the nuclear era. **It doesn’t require active cooling systems to prevent a meltdown, and would theoretically shut down safely without any outside intervention.** Traditional active cooling systems at large scale reactors utilize water pumps and back-up power systems to control residual or decay heat after a reaction is stopped. An external power source and/or coolant are eventually necessary within a matter of days. Recent third generation+ reactor designs incorporate passive cooling technologies with traditional active cooling techniques, but that approach only buys more time until there’s meltdown conditions. Several **reactors at** Tokyo Electric Power’s **Fukushima plants melted down when** diesel back-up systems failed and mainland power lines were destroyed in the wake of twin natural disasters. **It was reliant on active cooling**, and its engineers hadn’t envisioned a tsunami striking far inland. **A module reactor’s passive cooling system could** theoretically **survive that scenario,** and non-water cooling systems could further increase margins of safety. “The concept is **these could go on almost indefinite periods** in passive manner **with no intervention** relative to the cooling of core and decay/residual heat. Potentially, it could never require any additional intervention,” Rus said. The initial SMRs will continue to utilize water for cooling and uranium fuel, but sodium and lead bismuth alloys could foreseeably replace water in fourth generation models – provided they pass Nuclear Regulatory Commission (NRC) review, Russ said. The NRC’s regulators are very familiar with light water reactors, but alternative fuel sources would require different cooling methods, Rus said. Thorium is arguably safer than uranium both in the risk of accidents and for nuclear nonproliferation. “The coolant form is different than water, therefore there’s natural benefits in the way it cools reactor,” Rus explained. A sodium coolant would be liquid under normal operating conditions, but solidify and encase the reactor upon a cold shutdown. Molten salt is also a potential future fuel source. Aside from the NRC’s institutional history, uranium’s other advantage is that there’s also an abundance of fuel in the form of nuclear waste that is being sequestered at nuclear facilities around the United States. Spent fuel rods could become a source of energy for newer generation reactors, Rus suggested. “More than 90 percent of the energy is still in that fuel. One thing that has to come to life is recycling. **After reprocessing, waste is significantly less,** and then there ultimately needs to be a way to address that waste.”

**Plan not key --- the state of the economy will outweigh.**

**N**ew **Y**ork **T**imes, 3/13/**2012** (Muddled Economic Picture Muddles the Political One, Too, p. <http://www.nytimes.com/2012/03/14/us/politics/economy-plays-biggest-role-in-obama-re-election-chances.html?_r=1>)

The final major economic turning point of President Obama’s first term seems to have arrived. **The question is which way the economy will turn**. Job growth has picked up nicely in the last few months, raising the prospect that the American economy is finally in the early stages of a recovery that will gather strength over time. But with gas prices rising, the government cutting workers and consumers still deep in debt, some forecasters predict that economic growth — and with it, job growth — will slow in coming months. Politically, **the difference between the two situations is vast. In one**, Mr. **Obama will be able to campaign on a claim**, as he has recently begun to do, **that the country is back on track. In another, he will be left to explain that recoveries** from financial crises **take years**, and to argue that Republicans want to return to the Bush-era policies that created the crisis — as he tried to argue, unsuccessfully, in the 2010 midterm election. His approval rating has slipped again in some polls recently, with higher gas prices possibly playing a role. As a result, **the economic numbers** over the next couple of months, including an unemployment report on April 6, **will have bigger political implications** than the typical batch of data. The Federal Reserve acknowledged the uncertainty in its scheduled statement on Tuesday, suggesting the economy had improved somewhat but still predicting only “moderate economic growth.” Economists say the economy’s near-term direction depends relatively little on Mr. Obama’s economic policies. The standoff over Iran’s nuclear program, the European debt crisis and other events will most likely affect the economy more. But **many American voters are still likely to make their decision based on the economy. Historically, nothing — not campaign advertisements, social issues or even wars — has influenced voters more heavily than the direction of the economy in an election year. “If you could know one thing and you had to predict which party was going to win the** next presidential **election**,” Lynn **Vavreck, a political scientist at** the **U**niversity of **C**alifornia, **L**os **A**ngeles, **said, “you couldn’t do better than knowing the change in economic growth**.”

**Energy is not a key election issues --- other issues outweigh.**

**The Washington Post**, 6/27/**2012** (Energy ads flood TV in swing states, p. <http://www.washingtonpost.com/politics/energy-ads/2012/06/27/gJQAD5MR7V_story.html>)

Energy issues don’t spark much excitement among voters, **ranking below health care, education and the federal budget deficit — not to mention jobs and the economy**. And yet those same voters are being flooded this year with campaign ads on energy policy. Particularly in presidential swing states, the airwaves are laden with messages boosting oil drilling and natural gas and hammering President Obama for his support of green energy. The Cleveland area alone has heard $2.7 million in energy-related ads. The disconnect between what voters say they care about and what they’re seeing on TV lies in the money behind the ads, much of it coming from oil and gas interests. Those funders get the double benefit of attacking Obama at the same time they are promoting their industry. Democrats also have spent millions on the subject, defending the president’s record and tying Republican candidate Mitt Romney to “Big Oil.” Overall, more than $41 million, about one in four of the dollars spent on broadcast advertising in the presidential campaign, has gone to ads mentioning energy, more than a host of other subjects and just as much as health care, according to ad-tracking firm Kantar Media/Cmag. In an election focused heavily on jobs and the economy, all of this attention to energy seems a bit off topic. But the stakes are high for energy producers and environmentalists, who are squared off over how much the government should regulate the industry. And attention has been heightened by a recent boom in production using new technologies such as fracking and horizontal drilling, as well as a spike in gas prices this spring just as the general election got underway. When asked whether energy is important, more than half of voters say yes, according to recent polls. But asked to rank their top issues, **fewer than 1 percent mention energy**.