# a/t: licensing

**no licensing issues – madia – SMRs based on proven tech**

**Regulations don’t apply to the military**

**King et. al. ’11** (Marcus King , LaVar Huntzinger , Thoi Nguyen, CNA Think Tank, Environment and Energy Team, “Feasibility of Nuclear Power on U.S. Military Installations”, March 31, 2011, LEQ)

Certification and licensing issues The most basic licensing issue relates to whether NRC will have jurisdiction over potential nuclear reactor sites or whether DoD could be self-regulating. Our conversations with NRC indicate it is the only possible licensing authority for reactors that supply power to the com- mercial grid. However, DOE and DoD are authorized to regulate mission critical nuclear facilities under Section 91b of the Atomic Energy Act. There is some historical precedent for DoD exercising this authority. For example, the Army Nuclear Program was granted exception under this rule with regard to the reactor that operated aboard the Sturgis barge in the 1960s and 1970s.

**This changes the NRC**

Loudermilk and Andres ’10 (Richard B. Andres is a Senior Fellow at the Institute for National Strategic Studies at National Defense University and a Professor of National Security Strategy at the National War College, Micah J. Loudermilk is a researcher at the Institute for National Strategic Studies at National Defense University, “Small Reactors and the Military's Role in Securing America's Nuclear Industry”, <http://sitrep.globalsecurity.org/articles/100823646-small-reactors-and-the-militar.htm>, April 23, 2010, LEQ)

Faced with the dual-obstacles of growing worldwide energy demand and a renewed push for clean energy, the stage is set for a vibrant revival of the nuclear power industry in the United States. During his 2008 campaign, President Barack Obama committed to setting the country on the road to a clean, secure, and independent energy future - and nuclear power can play a vital role in that. With abundant energy resources available and near-zero emission levels, nuclear power offers a domestically-generated, clean, and long-term solution to America's energy dilemma. While countries around the world are building new reactors though, the U.S. nuclear power industry has remained dormant - and even borders on extinction - as no new plants have been approved for construction in the more than three decades following the Three Mile Island accident in 1979. Although Congress and the Executive Branch have passed laws and issued proclamations over the years, little actual progress has been made in the nuclear energy realm. A number of severe obstacles face any potential entrant into the reactor market - namely the Nuclear Regulatory Commission (NRC), which lacks the budget and manpower necessary to seriously address nuclear power expansion. Additionally, public skepticism over the safety of nuclear power plants has impeded serious attempts at new plant construction. However, despite the hurdles facing private industry, the U.S. military is in a position to take a leading role in the advancement of nuclear reactor technology through the integration of small reactors on its domestic bases. While the Obama Administration has pledged $8 billion in federal loan guarantees to the construction of two new reactors in Georgia and an additional $36 billion in new guarantees to the nuclear industry, this comes on top of $18.5 billion budgeted, but unspent, dollars. Despite this aid, it is still improbable that the U.S. will see any new large reactors now or in the foreseeable future as enormous cost, licensing, construction, and regulatory hurdles must be overcome. In recent years though, attention in the nuclear energy sphere has turned in a new direction: small-scale reactors. These next-generation reactors seek to revolutionize the nuclear power industry and carry a host of benefits that both separate them from their larger cousins and provide a legitimate opportunity to successfully reinvigorate the American nuclear industry. When compared to conventional reactors, small reactors have a number of advantages. First, the reactors are both small and often scalable - meaning that sites can be configured to house one to multiple units based on power needs. Although they only exist on paper and the military has yet to embrace a size or design, the companies investing in these technologies are examining a range of possibilities. Hyperion, for example, is working on a so-called "nuclear battery" - a 25 MWe sealed and transportable unit the size of a hot tub. Similarly, Babcock & Wilcox - the company which built many of the Navy's reactors - is seeking licensing for its mPower reactor, which is scalable and produces 125 MWe of power per unit. Other designs, such as Westinghouse's International Reactor Innovative and Secure (IRIS) model, have a generating capacity of up to 335 MWe. Second, large reactors come with enormous price tags - often approaching $10 billion in projected costs. The costs associated with building new reactors are so astronomical that few companies can afford the capital outlay to finance them. Additionally, the risks classically associated with the construction of nuclear reactors serve as an additional deterrent to interested utilities. As a result, companies must be willing to accept significant financial risks since ventures could potentially sink them or result in credit downgrades - as evidenced by the fact that 40 of 48 utilities issuing debt to nuclear projects suffered downgrades following the accident at Three Mile Island. All of this adds up to an environment that is not conducive to the sponsorship of new reactor plants. On the other hand, small reactors are able to mostly circumvent the cost hurdles facing large reactors. During the construction of large reactors, utilities face "single-shaft risk" - forced to invest and tie up billions of dollars in a single plant. However, small reactors present the opportunity for utilities to buy and add reactor capacity as needed or in a step-by-step process, as opposed to an all-or-nothing approach. Small reactors are also factory-constructed and shipped, not custom-designed projects, and can be built and installed in half the time - all of which are cost-saving measures. Additionally, despite concerns from critics over the proliferation and safety risks that a cadre of small reactors would potentially pose, the reality is considerably different. On the safety side, the new designs boast a number of features - including passive safety measures and simpler designs, thus reducing the number of systems to monitor and potential for system failure, enhancing the safety of the reactors. Small reactors can often be buried underground, are frequently fully contained and sealed (complete with a supply of fuel inside), can run longer between refueling cycles, and feature on-site waste storage - all of which serve to further insulate and secure the units. Finally, due to their small size, the reactors do not require the vast water resources needed by large reactors and in the event of an emergency, are far easier to isolate, shut off, and cool down if necessary. Notwithstanding all of these benefits, with a difficult regulation environment, anti-nuclear lobbying groups, and skeptical public opinion, the nuclear energy industry faces an uphill - and potentially unwinnable - battle in the quest for new reactors in the United States. Left to its own devices it is unlikely, at best, that private industry will succeed in bringing new reactors to the U.S. on its own. However, a route exists by which small reactors could potentially become a viable energy option: the U.S. military. Since 1948, the U.S. Navy has deployed over 500 reactors and possesses a perfect safety record in managing them. At the same time, grave concern exists over the fact that U.S. military bases are tied to and entirely dependent upon the civilian electric grid - from which they receive 99% of their power. Recently, attention has turned to the fact that the civilian grid, in addition to accidents, is vulnerable to cyber or terrorist attacks. In the event of a deliberate attack on the United States that knocks out all or part of the electric grid, the assets housed at the affected bases would be unavailable and U.S. global military operations potentially jeopardized. The presence of small-scale nuclear reactors on U.S. military bases would enable these facilities to effectively become "islands" - insulating them from the civilian grid and even potentially deterring attacks if the opponent knows that the military network would be unaffected. Unlike private industry, the military does not face the same regulatory and congressional hurdles to constructing reactors and would have an easier time in adopting them for use. By integrating small nuclear reactors as power sources for domestic U.S. military bases, three potential energy dilemmas are solved at the same time. First, by incorporating small reactors at its bases, the military addresses its own energy security quandary. The military has recently sought to "island" its bases in the U.S. -protecting them from grid outages, be they accidental or intentional. The Department of Defense has promoted this endeavor through lowering energy consumption on bases and searching for renewable power alternatives, but these measures alone will prove insufficient. Small reactors provide sufficient energy output to power military installations and in some cases surrounding civilian population centers. Secondly, as the reactors become integrated on military facilities, the stigma on the nuclear power industry will ease and inroads will be created for the adoption of small-scale reactors as a viable source of energy. Private industry and the public will see that nuclear reactors can indeed be utilized safely and effectively, resulting in a renewed push toward the expansion of nuclear power. Although many of the same hurdles will still be in place, a shift in public opinion and a stronger effort by utilities, coupled with the demonstrated success of small reactors on military bases, could prove the catalysts necessary for the federal government and the NRC to take more aggressive action. Finally, while new reactors are not likely in the near future, the military's actions will preserve, for a while longer, the badly ailing domestic nuclear energy industry. Nuclear power is here to stay around the globe, and the United States has an opportunity to take a leading role in supplying the world's nuclear energy and reactor technology. With the U.S. nuclear industry dormant for three decades, much of the attention, technology, and talent have concentrated overseas in countries with a strong interest in nuclear technology. Without the United States as a player in the nuclear energy market, it has little say over safety regulations of reactors or the potential risks of proliferation from the expansion of nuclear energy. If the current trend continues, the U.S. will reach a point where it is forced to import nuclear technology and reactors from other countries. Action by the military to install reactors on domestic bases will both guarantee the survival of the American nuclear industry in the short term, and work to solidify support for it in the long run. Ultimately, between small-scale nuclear reactors and the U.S. military, the capability exists to revitalize America's sleeping nuclear industry and promoting energy security and clean energy production. The reactors offer the ability to power domestic military bases, small towns, and other remote locations detached from the energy grid. Furthermore, reactor sites can house multiple units, allowing for greater energy production - rivaling even large reactors. Small reactors offer numerous benefits to the United States and a path initiated by the military presents a realistic route by which their adoption can be achieved.

# a/t: accidents

**Only SMR’s will commercialize- large scale reactors are a thing of the past**

Biello ’12 (David Biello, Award-winning journalist writing primarily about the environment and energy. I’ve been writing for Scientific American since November 2005 and have written on subjects ranging from astronomy to zoology for both the Web site and magazine. I’ve been reporting on the environment and energy since 1999—long enough to be cynical but not long enough to be depressed. I am the host of the 60-Second Earth podcast, a contributor to the Instant Egghead video series and author of a children’s book on bullet trains. I also write for publications ranging from Good to Yale e360, speak on radio shows such as WNYC’s The Takeaway, NHPR’s Word of Mouth, and PRI’s The World as well as host the duPont-Columbia award winning documentary “Beyond the Light Switch” for PBS, “Small Reactors Make a Bid to Revive Nuclear Power”, <http://www.scientificamerican.com/article.cfm?id=small-reactors-bid-to-revive-nuclear-power>, March 27, 2012, LEQ

FUTURE REACTOR: The Advanced Test Reactor at Idaho National Laboratory, with a maximum capacity of 250 megawatts, would qualify as a small modular design, although it is primarily used to test nuclear components for larger reactors. Image: Courtesy of Idaho National Laboratory Small may be beautiful for the nuclear power industry So argue a host of would-be builders of novel nuclear reactors. While the U.S. government has not given up on investing in large units that boast conventional designs, the Department of Energy has also announced the availability of $450 million in funds to support engineering and licensing of so-called "small modular reactors." "The Obama Administration and the Energy Department are committed to an all-of-the-above energy strategy that develops every source of American energy, including nuclear power," said Secretary of Energy Steven Chu in a statement announcing the funding, which aims to get such modular reactors hooked into the grid by 2022. "The Energy Department and private industry are working to position America as the leader in advanced nuclear energy technology and manufacturing." Globally, large reactor designs remain the predominant technology. One alternative to cut costs could be small, novel reactors, appropriate for areas with smaller electricity demands or as part of a flexible power production facility that could scale up quickly as necessary. Small reactors would have a maximum capacity of 300 megawatts of electricity, or enough to power more than 200,000 U.S. homes for a year. In addition, the reactors would be modular—made in factories and shipped to sites—to reduce costs. But such reactors still require the same electricity-generating, safety, and waste disposal systems as the hulking light-water reactors presently being built as well as identical rigorous licensing requirements, at least in the U.S.—and that may cost them. "Yeah, there's less concrete and, yeah, there's less steel in the reactor vessel," says nuclear engineer Eric Loewen, chief consulting engineer at GE Hitachi Nuclear Energy, which is proposing a modular fast reactor to help the U.K. with its plutonium problem. But the list of other expenses associated with nuclear will not change with the new designs and "that gives pause to small modular reactors." Mini-nuke A modern pressurized water reactor, like the two being built in Georgia, can pump out more than 1,000 megawatts worth of power using the heat from fission to boil water to spin a turbine. Babcock & Wilcox—one-time builder of large pressurized water reactors as well as smaller ones suitable for the submarines of the U.S. Navy—would like to shrink those down to just 180 megawatts. "It's not for lack of knowledge of how to build big reactors," says Chris Mowry, president of B&W Modular Nuclear Energy. Instead, B&W suggests that the fundamental problem facing the adoption of nuclear power is not the technology itself, but the financial risk of committing to a build a big nuclear reactor. Simply put, even the largest utilities do not have the capital to build a $7 billion reactor, and such large projects have a tendency to see costs balloon as projects are delayed. A case in point is the Tennessee Valley Authority's bid to complete a second reactor at its Watts Bar Nuclear Power Plant. The reactor, first begun in the 1970s and resumed in 2007, is behind schedule and "will cost more than forecast," admits TVA spokesman Terry Johnson. "It's a size issue," Mowry argues. So B&W has designed an integral pressurized-water reactor that it can manufacture in a factory and ship to a site. "We wanted to be able to put it on a rail car," Mowry says, and so the self-contained reactor is 25 meters tall and 4 meters wide. Operating at high pressure and temperature, such reactors are not truly novel, having propelled the first commercial nuclear ships, such as the nuclear-powered cargo ship named Savannah, in past decades. Shrinking the reactor and putting its parts (such as the control rods that regulate the fission process) inside the reactor vessel, also reduces the need for redundant safety systems to deal with problems such as leaky pipes. The pipes in and out of the reactor sit above the nuclear fuel rods themselves, ensuring that any leaks do not result in uncovered fuel. In addition, the pipes are much smaller than those required for a larger reactor. "You have a hell of a lot more water in the reactor relative to the size of the breaks that can happen," Mowry explains. External tanks hold enough additional water to cool the reactor for two weeks in the event of a loss of power as well. In addition, the reactor—in essence, a nuclear battery because it is largely self-contained—is buried, rendering it "immune from external events like tornadoes, hurricanes or tsunamis." The smaller reactor uses the same nuclear fuel rods—albeit slightly shorter in length to fit—but fissions them more slowly, operating for four years before fresh fuel is needed. A test facility near Lynchburg, Va. is up and running to ensure that what looks good on paper will also work in practice and B&W already has one potential customer in the U.S.—the TVA—expressing an interest in building as many as six of the small modular reactors at its Clinch River site, former home of a failed effort to build a fast breeder reactor in the 1970s. The B&W mPower reactor is not the only such small modular design moving forward: Westinghouse Electric, NuScale and Holtec—a company better known for making the hulking concrete and steel casks to store used nuclear fuel—have similar designs of varying sizes. "The advantage of the smaller one is: even if you need 1000 megawatts you can put investment in piecemeal and generate money while the next unit is put in," says Westinghouse CEO Aris Candris. But multiple reactor sites proved problematic at Fukushima Daiichi, where an accident in one rapidly became a crisis for multiple reactors and spent fuel pools. "If you're going to have multiple reactors, are you going to gain in safety or lose in safety?" asks physicist M.V. Ramana of Princeton University. "We don't know." "Early in the discovery of any new technology you have this rosy picture that is formed," Candris admits of small modular reactors. "In the early days of nuclear, there were people out there saying it would be too cheap to meter. We found out otherwise." Alternative fuel? Small modular reactors may help with two of the biggest challenges facing the nuclear industry: the growing stores of waste from existing reactors and residue from the mass production of nuclear weapons as well as the overall safety of nuclear power. GE's PRISM fast reactor, General Atomic's helium-cooled fast reactor, or Hyperion Power's liquid lead-bismuth cooled reactor could all turn waste into fuel. Hyperion hopes to demonstrate its reactor, capable of generating 25 megawatts of electricity, at the Savannah River National Laboratory in South Carolina. The site has also signed memorandums of understanding to host prototypes of the NuScale and Holtech reactors. Such nuclear batteries could in principle be sealed, placed in the ground, and run for a decade before being swapped out for an entirely new modular reactor. And if manufactured in a factory, they could also be cheap. "There is no inherent reason why nuclear power needs to be expensive," Bill Gates, who has invested in the novel reactor proposed by TerraPower, told the ARPA–e summit on February 28, noting that nuclear's relative expense largely derives from building in safety features. Evaluating the safety of such new reactors will take time, of course, and the U.S. Nuclear Regulatory Commission has yet to receive an application from any of the would-be vendors of small modular reactors, whether fast reactors or scaled-down light-water reactors. And staffing requirements, emergency planning and clean-up funds, among other issues, remain to be worked out between the reactor makers and the NRC—a key component of reducing the cost of such reactors. "The staff has contended pretty much all along that they will have to meet the same security requirements as all of the large reactors," says Michael Mayfield, director of the Division of Advanced Reactors and Rulemaking in the NRC's Office of New Reactors, noting that a timeline for licenses could be expedited if such reactors are simply scaled down versions of existing light water reactors that do not require new regulations. "Why would it take so long to review something that is substantially smaller with fewer parts? That however is based on the notion that vendors submit complete, high quality applications and address staff concerns more quickly than we have been able to do with some of the large [reactor] designs." By eliminating human intervention—through passive safety features that kick in without the help of operators—staffing requirements might be cut. And if buried or otherwise hardened, the need to pay security guards might also be reduced. "If you need humans to do something, that is not a good design," Gates argued at the ARPA-e conference. Ultimately, the success or failure of such scaled-down designs may relate to manpower. "If you need the same overhead to run 100 megawatts as you do to run a 1000, that's economically problematic," notes William Johnson, CEO of Progress Energy, a utility considering whether to build new nuclear power plants in future. The Homer Simpson factor Of course, human error has yet to be eliminated from either operating reactors or those that exist only on paper. And, much as in airplane or pharmaceutical development, government decisions will determine whether these reactors succeed. Small modular reactors "becoming a reality are dependent on government and the nuclear industry," said NRC commissioner William Ostendorff in a speech to the American Nuclear Society conference this past November. "With respect to new reactor licensing, 'the devil is in the details.'" Regardless of how cheap such small modular reactors may allow nuclear to be in future, it is unlikely to be as cheap as natural-gas-fired turbines in the present. In fact, low natural gas prices stalled the U.S. nuclear renaissance outside Georgia and South Carolina, long before the reactor meltdowns at Fukushima Daiichi in Japan. "Because of an unanticipated abundance of natural gas in the United States, nuclear energy, in general, is facing tough competition," noted an analysis of the prospects for small modular reactors from the University of Chicago published last November. The analysis also suggested that small reactors would be more expensive than large reactors on a per-megawatt basis until manufacturing in significant quantities has happened. "It [is] unlikely that SMRs will be commercialized without some form of government incentive." But the Department of Energy funding may only support two designs. Innovation spurred by competition seems unlikely. And that may ultimately erode the current U.S. nuclear industry advantage—from design to operation to regulation. That means that the rest of the world—particularly China, which is building almost every type of reactor on offer, and Russia—may well inherit the promise and peril of nuclear power, whether small or large. "China and India lead the world in nuclear safety today," NRG CEO David Crane told the Bloomberg New Energy Finance Summit on March 20. NRG initiated and abandoned plans to build at least two new large reactors in the last five years, thanks to falling natural gas prices and uncertainty surrounding U.S. government policy. "The U.S. cannot lead the world in safety, if we're not building new nuclear power plants."

**SMRs are safe – distinct from other nuclear designs**

**Shellenberger 9/7**, Michael, president of the breakthrough institute, Jessica Lovering, policy analyst at the breakthough institute, Ted Nordhaus, chairman of the breakthrough institute, [“Out of the Nuclear Closet,” http://www.foreignpolicy.com/articles/2012/09/07/out\_of\_the\_nuclear\_closet?page=0,0]

To move the needle on nuclear energy to the point that it might actually be capable of displacing fossil fuels, we'll need new nuclear technologies that are cheaper and smaller. Today, there are a range of nascent, smaller nuclear power plant designs, some of them modifications of the current light-water reactor technologies used on submarines, and others, like thorium fuel and fast breeder reactors, which are based on entirely different nuclear fission technologies. Smaller, modular reactors can be built much faster and cheaper than traditional large-scale nuclear power plants**.** Next-generation nuclear reactors are designed to be incapable of melting down, produce drastically less radioactive waste, make it very difficult or impossible to produce weapons grade material, useless water, and require less maintenance. Most of these designs still face substantial technical hurdles before they will be ready for commercial demonstration. That means a great deal of research and innovation will be necessary to make these next generation plants viable and capable of displacing coal and gas. The United States could be a leader on developing these technologies, but unfortunately U.S. nuclear policy remains mostly stuck in the past. Rather than creating new solutions, efforts to restart the U.S. nuclear industry have mostly focused on encouraging utilities to build the next generation of large, light-water reactors with loan guarantees and various other subsidies and regulatory fixes. With a few exceptions, this is largely true elsewhere around the world as well. Nuclear has enjoyed bipartisan support in Congress for more than 60 years, but the enthusiasm is running out. The Obama administration deserves credit for authorizing funding for two small modular reactors, which will be built at the Savannah River site in South Carolina. But a much more sweeping reform of U.S. nuclear energy policy is required. At present, the Nuclear Regulatory Commission has little institutional knowledge of anything other than light-water reactors and virtually no capability to review or regulate alternative designs. This affects nuclear innovation in other countries as well, since the NRC remains, despite its many critics, the global gold standard for thorough regulation of nuclear energy. Most other countries follow the NRC's lead when it comes to establishing new technical and operational standards for the design, construction, and operation of nuclear plants. What's needed now is a new national commitment to the development, testing, demonstration, and early stage commercialization of a broad range of new nuclear technologies -- from much smaller light-water reactors to next generation ones -- in search of a few designs that can be mass produced and deployed at a significantly lower cost than current designs. This will require both greater public support for nuclear innovation and an entirely different regulatory framework to review and approve new commercial designs. In the meantime, developing countries will continue to build traditional, large nuclear power plants. But time is of the essence. With the lion's share of future carbon emissions coming from those emerging economic powerhouses, the need to develop smaller and cheaper designs that can scale faster is all the more important. A true nuclear renaissance can't happen overnight. And it won't happen so long as large and expensive light-water reactors remain our only option. But in the end, there is no credible path to mitigating climate change without a massive global expansion of nuclear energy. If you care about climate change, nothing is more important **t**han developing the nuclear technologies we will need to get that job done.

# a/t: NIMBY

**Military use of nuclear power flips public opinion.**

Scott B. Clifton ‘07, Lieutenant Colonel – Marines (<http://www.mca-marines.org/gazette/atomic-bases-nuclear-power-dod>)

The visceral opposition to nuclear power is very similar to the opposition to any renewable energy source—not in my backyard (NIMBY). Americans are in favor of renewable energy as long as it doesn’t affect their daily lives or change the local aesthetics near their homes. Solar panels and wind farms are wonderful ideas as long as they are installed somewhere else. It is possible that by offering up DoD installations, the NIMBY argument would be marginalized as the installation would be the “somewhere else,” and for those Americans who believe DoD installations are already intrusive on local aesthetics, they might think this is a fine place to construct a nuclear reactor. The NIMBY argument would be offset through a thorough explanation of the steps that would be taken to ensure the safety of the local populace as well as clearly define the positive economic impacts to the local community through increased job opportunities as well as reducing electrical costs for the local area. Regardless of the location, as long the NIMBY mentality prevails, no progress will be made in the realm of renewable energy.

**Military renewables now**

**Kirshenbaum 12**, Warren, President and CEO of the Cherrytree Group “Military Renewable Energy Projects,” September 5th, http://www.cherrytree-group.com/\_blog/Cherrytree\_Group\_LLC\_Blog/post/Military\_Renewable\_Energy\_Projects/

The U.S. Department of Defense plans to open up 16 million acres of its land for renewable energy development, which it hopes will create a boom of solar, wind and geothermal projects and provide clean power to military bases. Defense Secretary Leon Panetta and the Interior Secretary Ken Salazar signed a memorandum of understanding to work together on promoting renewable energy generation projects on public land that has historically been restricted for military uses. About 13 million of those 16 million acres are located in western U.S., where a lot of solar, wind and geothermal power development already has been taking place on private and other types of public land. The administration has been making a strong push for renewable energy development by funding both technology research and power generation projects. The administration wants to accomplish two goals by supporting renewable energy: creating jobs and finding alternative, cleaner and more abundant power sources domestically. Last month, Salazar unveiled a roadmap for speeding up solar power project development on 285,000 acres of public land in six western states. The government support for renewable energy has indeed propelled the development of advanced materials and equipment and the construction of some of the largest solar power plants in the country. The Monday announcement by the Defense and Interior departments involved not only land set aside for the military but also offshore locations near military installations. The goal is to promote onshore and offshore energy projects, such as erecting wind turbines in the sea. The military has been vocal about its support of renewable energy, from electricity to transportation fuels, that it says will help it become more self-sufficient and reduce its vulnerabilities in the battle fields. “Renewable energy will allow a military base to maintain critical operations for weeks or months if an electric power grid goes down,” she said. The military wants to attract developers and private investments for building solar, wind and other renewable electricity power projects on its land. It plans to lease the land to developers and buy some or all of the power from each project for its own use, and any unused power will be sold local utilities, Robyn said. Each of the military services plans on getting 1 gigawatt of renewable energy installed near its bases by 2025.

**wind triggers the link**

Salkin 9. [Patricia, Raymond and Ella Smith Distinguished Professor of Law, Associate Dean, Director, Govt Law Center @ Albany Law, “Cooperative Federalism and Wind: A New Framework for Achieving Sustainability” Legal Studies Research Paper Series -- Hofstra Law Review -- Volume 37]

With strong support at both the national and state levels, wind energy seems poised to continue its rapid growth. Yet, proposed wind energy projects sometimes falter at the local level, where land use decisions are typically made.12 In opposing wind energy projects, local residents raise a host of concerns involving aesthetics, noise, safety and impacts on surrounding property values, wildlife and the environment.13 Indeed, the intensity of local opposition has prompted one prominent energy siting consultant to remark that ―wind energy is fast becoming¶ ̳the mother of all NIMBY wars.‘‖14 NIMBY, an acronym for Not In My Backyard, is a term used to describe the reaction of local homeowners who object to further development within their community,15 fearing that such development might reduce the market value of their homes or change the character of the community.16

**Solar triggers the link**

**Harb 11**, Ryan, Ecological designer, educator, & Chief Sustainability Coordinator for UMass Amherst Auxiliary Enterprises. “Solar panels becoming the new NIMBY... permaculture gardens becoming NIFTY!” December 3rd, http://www.ryanharb.com/1/post/2011/12/solar-panels-becoming-the-new-nimby-permaculture-gardens-becoming-nifty.html

The other day I sat in a meeting with a whole team of environmental specialists at UMass Amherst from a variety of backgrounds and disciplines and the subject of solar panels came up. Many agreed that solar panels have become the new NIMBY, a popular acronym ("Not In My Back Yard") often used to describe opposition by a group of residents who reject a proposal for a new development being constructed close to them. A lot of people like the idea of harvesting the sun's energy that hits our planet each day, but simply don't want them on their property or in a neighboring field. Another acronym you might run into is BANANA ("Build Absolutely Nothing Anywhere Near Anything (or Anyone)") which means people are against building something altogether (such as no nuclear power plants anywhere, no more new housing developments in a city, etc.)

# 2ac incentive

**we meet – we give the industry money and tax credits**

**Epa.gov 12** [“Solar Power Purchase Agreements,” May 24th, <http://www.epa.gov/greenpower/buygp/solarpower.htm>]

A Solar Power Purchase Agreement (SPPA) is a financial arrangement in which a third-party developer owns, operates, and maintains the photovoltaic (PV) system, and a host customer agrees to site the system on its roof or elsewhere on its property and purchases the system’s electric output from the solar services provider for a predetermined period. This financial arrangement allows the host customer to receive stable, and sometimes lower cost electricity, while the solar services provider or another party acquires valuable financial benefits such as tax credits and income generated from the sale of electricity to the host customer.

**DoE says we’re T**

**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.

**Interpretation – incentives are the disbursement of public funds**

**Gielecki 1**, Mark, economist with the Energy Information Administration, Fred Mayes, Senior Technical Advisor for the coal, nuclear, and renewables program within the EIA, Lawrence Prete, retired from the EIA, [“Incentives, Mandates, and Government Programs for Promoting Renewable Energy,” February, <http://lobby.la.psu.edu/_107th/128_PURPA/Agency_Activities/EIA/Incentive_Mandates_and_Government.htm>]

Over the years, incentives and mandates for renewable energy have been used to advance different energy policies, such as ensuring energy security or promoting environmentally benign energy sources. Renewable energy has beneficial attributes, such as low emissions and replenishable energy supply, that are not fully reflected in the market price. Accordingly, governments have used a variety of programs to promote renewable energy resources, technologies, and renewable-based transportation fuels. (1) This paper discusses: (1) financial incentives and regulatory mandates used by Federal and State governments and Federal research and development (R&D), (2), (3) and (2) their effectiveness in promoting renewables. A financial incentive is defined in this report as providing one or more of the following benefits: A transfer of economic resources by the Government to the buyer or seller of a good or service that has the effect of reducing the price paid, or, increasing the price received, respectively; Reducing the cost of production of the good or service; or, Creating or expanding a market for producers. The intended effect of a financial incentive is to increase the production or consumption of the good or service over what it otherwise would have been without the incentive. Examples of financial incentives are: tax credits, production payments, trust funds, and low-cost loans. Research and development is included as a support program because its effect is to decrease cost, thus enhancing the commercial viability of the good(s) provided. (4)

# 2ac BRC

**THE COUNTERPLAN HAPPENED**

**USDOE 1/31**

<http://energy.gov/sites/prod/files/1-31-12%20SEAB%20Meeting%20Minutes.pdf> Summary Minutes of the US Department of Energy (DOE) Secretary of Energy Advisory Board Public Meeting Committee Members: William Perry, Chair; Ralph Cicerone; John Deutch; Nicholas Donofrio; Michael McQuade; Arthur Rosenfeld; Steven Westly; Dan Yergin Date and Time: 8:30 AM- 3:30 PM, January 31, 2012 Location: Department of Energy Forrestal Building, 1000 Independence Avenue, SW, Washington, DC 20585 Purpose: Meeting of the Secretary of Energy Advisory Board SEAB Staff: Alyssa Morrissey, Deputy Designated Federal Officer DOE Staff: Secretary Steven Chu; Deputy Secretary Daniel Poneman; Renee Stone, Senior Advisor; Richard Kauffman, Senior Advisor; Ramamoorthy Ramesh, SunShot Director; Minh Le, Solar Energy Technologies Program Chief Engineer; Rachel Tronstein, Deputy SunShot Director; Dave Howell, Hybrid and Electric Systems Team Leader; David Danielson, ARPA-E Program Director; Lauren Azar, Senior Advisor.

Meeting Summary: SEAB members heard opening remarks from Secretary Chu. During the first half of the day, the Board heard presentations from DOE staff, including a presentation on renewable energy and energy efficiency financing from Senior Advisor Richard Kauffman, an overview of the SunShot initiative from SunShot Director Ramamoorthy Ramesh, and an overview of the batteries tech team from Dave Howell. The Board heard updates from the Building Efficiency Subcommittee, and a Subcommittee on small modular reactors was established. Just before lunch, the Board heard from the Chairs of the Blue Ribbon Commission, General Brent Scowcroft and Congressman Lee Hamilton. The last session of the meeting was a presentation on transmission from Senior Advisor Lauren Azar.

**Perm do the counterplan**

**First Not Severance**

**“Resolved” is “to express; to decide by a formal vote” that’s a quote from**

**Webster’s 98 –** Revised Unabridged Dictionary,(dictionary.com)

Resolved**:**

5. To express, as an opinion or determination, by resolution and vote; to declare or decide by a formal vote; -- followed by a clause; as, the house resolved (or, it was resolved by the house) that no money should be apropriated (or, to appropriate no money).

**And “Should used in regular sense is not mandatory but permissive” that’s a quote from**

**Words and Phrases,** 20**02** (“Words and Phrases: Permanent Edition” Vol. 39 Set to Signed. Pub. By Thomson West. P. 370)

Cal.App. 5 Dist. 1976. Term “should,” as used in statutory provision that motion to suppress search warrant should first be heard by magistrate who issued warrant, is used in regular, persuasive sense, as recommendation, and is thus not mandatory but permissive. West’s Ann.Pen Code, § 1538.5(b).---Cuevas v. Superior Court, 130 Cal. Rptr. 238, 58 Cal.App.3d 406 ----Searches 191.

**Uncertainty jacks private investment in SMR**

Rosner, Goldberg, and Hezir ’11 (Robert Rosner, Robert Rosner is an astrophysicist and founding director of the Energy Policy Institute at Chicago. He was the director of Argonne National Laboratory from 2005 to 2009, and Stephen Goldberg, Energy Policy Institute at Chicago, The Harris School of Public Policy Studies, Joseph S. Hezir, Principal, EOP Foundation, Inc., Many people have made generous and valuable contributions to this study. Professor Geoff Rothwell, Stanford University, provided the study team with the core and supplemental analyses and very timely and pragmatic advice. Dr. J’Tia Taylor, Argonne National Laboratory, supported Dr. Rothwell in these analyses. Deserving special mention is Allen Sanderson of the Economics Department at the University of Chicago, who provided insightful comments and suggested improvements to the study. Constructive suggestions have been received from Dr. Pete Lyons, DOE Assistant Secretary of Nuclear Energy; Dr. Pete Miller, former DOE Assistant Secretary of Nuclear Energy; John Kelly, DOE Deputy Assistant Secretary for Nuclear Reactor Technologies; Matt Crozat, DOE Special Assistant to the Assistant Secretary for Nuclear Energy; Vic Reis, DOE Senior Advisor to the Under Secretary for Science; and Craig Welling, DOE Deputy Office Director, Advanced Reactor Concepts Office, as well as Tim Beville and the staff of DOE’s Advanced Reactor Concepts Office. The study team also would like to acknowledge the comments and useful suggestions the study team received during the peer review process from the nuclear industry, the utility sector, and the financial sector. Reviewers included the following: Rich Singer, VP Fuels, Emissions, and Transportation, MidAmerican Energy Co.; Jeff Kaman, Energy Manager, John Deere; Dorothy R. Davidson, VP Strategic Programs, AREVA; T. J. Kim, Director—Regulatory Affairs & Licensing, Generation mPower, Babcock & Wilcox; Amir Shahkarami, Senior Vice President, Generation, Exelon Corp.; Michael G. Anness, Small Modular Reactor Product Manager, Research & Technology, Westinghouse Electric Co.; Matthew H. Kelley and Clark Mykoff, Decision Analysis, Research & Technology, Westinghouse Electric Co.; George A. Davis, Manager, New Plant Government Programs, Westinghouse Electric Co.; Christofer Mowry, President, Babcock & Wilcox Nuclear Energy, Inc.; Ellen Lapson, Managing Director, Fitch Ratings; Stephen A. Byrne, Executive Vice President, Generation & Transmission Chief Operating Officer, South Carolina Electric & Gas Company; Paul Longsworth, Vice President, New Ventures, Fluor; Ted Feigenbaum, Project Director, Bechtel Corp.; Kennette Benedict, Executive Director, Bulletin of the Atomic Scientist; Bruce Landrey, CMO, NuScale; Dick Sandvik, NuScale; and Andrea Sterdis, Senior Manager of Strategic Nuclear Expansion, Tennessee Valley Authority. The authors especially would like to acknowledge the discerning comments from Marilyn Kray, Vice-President at Exelon, throughout the course of the study, “Small Modular Reactors – Key to Future Nuclear Power”, <http://epic.uchicago.edu/sites/epic.uchicago.edu/files/uploads/SMRWhite_Paper_Dec.14.2011copy.pdf>, November 2011, LEQ)

As illustrated in the previous discussion, until significant learning benefits are achieved, the LEAD SMR plant and some number of FOAK SMR plants may not be competitive with new natural gas combined-cycle generation. Estimates of the number of SMR modules that may not be competitive and the magnitude of the difference in cost are subject to significant uncertainty. The estimates are dependent upon at least three key variables: the initial cost estimates for the LEAD SMR design, the learning rate, and the future price of natural gas. The potential range of uncertainty is illustrated in Figure 4, which identifies the generation cost differential ($/MWh) between the family of SMR plants (LEAD, FOAK, and NOAK) and gas-fired plants for a variety of natural gas price scenarios. This analysis adopts the 10% learning assumption and the overnight cost estimate of $4,700/kW. If natural gas prices remain indefinitely depressed, these scenarios are unlikely to materialize, and the gaps will be significantly higher for the entire family of SMR plants.24 Assuming that early SMR deployments will carry cost premiums (until the benefits of learning are achieved), the issue is whether federal government incentives are needed to help overcome this barrier. Some may argue that commercial deployment will occur, albeit at a slower pace, as the cost of alternatives increases to a level that makes initial SMR deployments competitive. Others may argue that SMR vendors should market initial modules at market prices and absorb any losses until a sufficient number of modules are sold that will begin to generate a profit. However, the combination of the large upfront capital investment, the long period before a return on capital may be achieved, and the large uncertainty in the potential level of return on investment make it unlikely that SMRs will be commercialized without some form of government incentive. The present analysis assumes that government incentives will be essential to bridging this gap and accelerating private sector investment (see Appendix D). It is the study team’s understanding that DOE has proposed to share the cost of certain SMR design and licensing study activities. This section analyzes possible options for government incentives for early deployments (LEAD and FOAK plants) in addition to federal cost sharing for the design and licensing effort. The present analysis considers several alternative approaches to providing such incentives, either in the form of direct or indirect government financial incentives, or through market transformation actions that will spur demand for FOAK plants in competitive applications. The study team’s approach is to identify targeted, least-cost incentives that could form the basis for further dialogue between stakeholders and policy makers. Possible financial incentives need to be designed and evaluated relative to a particular management model for deployment of LEAD and FOAK plants. The study team’s management model assumes that these initial SMR plants will be managed and financed by the private sector, consisting of a possible consortium of the SMR vendor, the reactor module manufacturer, other major vendors, a host-site utility company, and one or more other electricity generation or vertically integrated utilities. The types of incentives that could be structured for this type of management model are discussed in the subsections that follow.

**DoD empirically does not implement energy policy recommendations**

**DSB 8**

Defense Science Board Task Force on DoD Energy Strategy, Feb 2008, More Figh -Less Fuel, www.acq.osd.mil/dsb/reports/ADA477619.pdf

Finding #1: The recommendations from the 2001 Defense Science Board Task Force Report “More Capable Warfighting Through Reduced Fuel Burden” have not been implemented.

The principal finding of the 2001 DSB report was that DoD systematically underestimates the cost of fuel to its tactical forces by failing to recognize the costs of the support structure and the protection necessary to bring that fuel to the systems that use it. As a consequence, significant warfighting, logistics and monetary benefits are available from making weapons systems more fuel-efficient, but those benefits are not valued or emphasized in DoD’s requirements and acquisition processes. The report found that the requirements process does not require energy efficiency in deployed systems, the acquisition process does not value it, so the PPBES process cannot not provide it visibility when considering investment decisions.

These findings remain valid today. Few of the recommendations of that study have been implemented to date. Those that have begun; making energy efficiency a selective Key Performance Parameter in system design, and using the fully burdened cost of fuel in life cycle costing of alternative systems; are in their early stages of implementation. Focused leadership will be required to complete the recommendations of the 2001 study and similar recommendations made herein.

**DoD already established its recommendations for SMR adoption**

**King 11**

Marcus King, Ph.D., Center for Naval Analyses Project Director and Research Analyst for the Environment and Energy TeamLaVar Huntzinger, Thoi Nguyen, March 2011, Feasibility of Nuclear Power on U.S.Military Installations, www.cna.org/sites/default/files/research/Nuclear Power on Military Installations D0023932 A5.pdf

Recognizing nuclear power as a potential benefit to Department of Defense (DoD) facilities, Congress directed the DoD, in section 2845 of the National Defense Authorization Act (NDAA) of 2010, to “conduct a study to assess the feasibility of developing nuclear power plants on military installations” [12]. Specifically, the study is to consider the following topics:

• Options for construction and operation

• Cost estimates and the potential for life-cycle cost savings

• Potential energy security advantages

• Additional infrastructure costs

• Effect on the quality of life of military personnel

• Regulatory, state, and local concerns

• Effect on operations on military installations

• Potential environmental liabilities

• Factors that may impact safe colocation of nuclear power plants on military installations

• Other factors that bear on the feasibility of developing nuclear power plants on military installations.

To meet this requirement, the office of the Deputy Under Secretary of Defense for Installations and Environment, DUSD(I&E), asked CNA to conduct this feasibility study. The CNA effort was directed by a steering group consisting of representatives from DUSD (I&E), each of the military departments, DOE, NRC, and DOE Labs. This report documents our analysis and findings.

**AND—It recommended against being an early adopter—proves the CP can’t establish a bureaucratic consensus for the plan**

**King 11**

Marcus King, Ph.D., Center for Naval Analyses Project Director and Research Analyst for the Environment and Energy TeamLaVar Huntzinger, Thoi Nguyen, March 2011, Feasibility of Nuclear Power on U.S.Military Installations, www.cna.org/sites/default/files/research/Nuclear Power on Military Installations D0023932 A5.pdf

The most significant risk for SMR power plants is associated with being an early adoptor of new technology. From a DoD perspective, economic feasibility depends on negotiating arrangements for the project that ensure DoD is not responsible for FOAK expenses. Having contractor owners and operators would reduce operating risks associated with being an early adoptor. If partners can’t be found who are willing to bear the FOAK and early adoptor risks then DoD should not undertake such a project. The recent MOU between DOE and DoD identifies a framework for cooperation and partnership for sharing risks associated with this type of project.

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**ZERO risk of WMD terror – their evidence is alarmist**

Mueller ’12 (John, Senior Research Scientist at the Mershon Center for International Security Studies and Adjunct Professor in the Department of Political Science, both at Ohio State University, and Senior Fellow at the Cato Institute. Mark G. Stewart is Australian Research Council Professorial Fellow and Professor and Director at the Centre for Infrastructure Performance and Reliability at the University of Newcastle in Australia, The Terrorism Delusion, *International Security*, Vol. 37, No. 1 (Summer 2012), pp. 81–110)

Over the course of time, such essentially delusionary thinking has been internalized and institutionalized in a great many ways. For example, an extrapolation of delusionary proportions is evident in the common observation that, because terrorists were able, mostly by thuggish means, to crash airplanes into buildings, they might therefore be able to construct a nuclear bomb. In 2005 an FBI report found that, despite years of well-funded sleuthing, the Bureau had yet to uncover a single true al-Qaida sleeper cell in the United States. The report was secret but managed to be leaked. Brian Ross, “Secret FBI Report Questions Al Qaeda Capabilities: No ‘True’ Al Qaeda Sleeper Agents Have Been Found in U.S.,” ABC News, March 9, 2005. Fox News reported that the FBI, however, observed that “just because there’s no concrete evidence of sleeper cells now, doesn’t mean they don’t exist.” “FBI Can’t Find Sleeper Cells,” Fox News, March 10, 2005. Jenkins has run an internet search to discover how often variants of the term “al-Qaida” appeared within ten words of “nuclear.” There were only seven hits in 1999 and eleven in 2000, but the number soared to 1,742 in 2001 and to 2,931 in 2002. 47 By 2008, Defense Secretary Robert Gates was assuring a congressional committee that what keeps every senior government leader awake at night is “the thought of a terrorist ending up with a weapon of mass destruction, especially nuclear.” 48 Few of the sleepless, it seems, found much solace in the fact that an al-Qaida computer seized in Afghanistan in 2001 indicated that the group’s budget for research on weapons of mass destruction (almost all of it focused on primitive chemical weapons work) was $2,000 to $4,000. 49 In the wake of the killing of Osama bin Laden, officials now have many more al-Qaida computers, and nothing in their content appears to suggest that the group had the time or inclination, let alone the money, to set up and staff a uranium-seizing operation, as well as a fancy, super-high-technology facility to fabricate a bomb. This is a process that requires trusting corrupted foreign collaborators and other criminals, obtaining and transporting highly guarded material, setting up a machine shop staffed with top scientists and technicians, and rolling the heavy, cumbersome, and untested finished product into position to be detonated by a skilled crew—all while attracting no attention from outsiders. 50 If the miscreants in the American cases have been unable to create and set off even the simplest conventional bombs, it stands to reason that none of them were very close to creating, or having anything to do with, nuclear weapons—or for that matter biological, radiological, or chemical ones. In fact, with perhaps one exception, none seems to have even dreamed of the prospect; and the exception is José Padilla (case 2), who apparently mused at one point about creating a dirty bomb—a device that would disperse radiation—or even possibly an atomic one. His idea about isotope separation was to put uranium into a pail and then to make himself into a human centrifuge by swinging the pail around in great arcs. Even if a weapon were made abroad and then brought into the United States, its detonation would require individuals in-country with the capacity to receive and handle the complicated weapons and then to set them off. Thus far, the talent pool appears, to put mildly, very thin. There is delusion, as well, in the legal expansion of the concept of “weapons of mass destruction.” The concept had once been taken as a synonym for nuclear weapons or was meant to include nuclear weapons as well as weapons yet to be developed that might have similar destructive capacity. After the Cold War, it was expanded to embrace chemical, biological, and radiological weapons even though those weapons for the most part are incapable of committing destruction that could reasonably be considered “massive,” particularly in comparison with nuclear ones. 52

**SMRs solve Mars colonization**

**O’Neil 11**, Ian, PhD from University of Wales, founder and editor of Astroengine, space producer for Discovery News [“'Suitcase' Nuclear Reactors to Power Mars Colonies,” August 30th, http://news.discovery.com/space/mars-colonies-powered-by-mini-nuclear-reactors-110830.html]

Nuclear power is an emotive subject -- particularly in the wake of the Fukushima power plant disaster after Japan's March earthquake and tsunami -- but in space, it may be an essential component of spreading mankind beyond terrestrial shores. On Monday, at the 242nd National Meeting and Exposition of the American Chemical Society (ACS) in Denver, Colo., the future face of space nuclear power was described. You can forget the huge reactor buildings, cooling towers and hundreds of workers; the first nuclear reactors to be landed on alien worlds to support human settlement will be tiny. Think less "building sized" and more "suitcase sized." "People would never recognize the fission power system as a nuclear power reactor," said James E. Werner, lead of the Department of Energy's (DOE) Idaho National Laboratory. "The reactor itself may be about 1 feet wide by 2 feet high, about the size of a carry-on suitcase. There are no cooling towers. A fission power system is a compact, reliable, safe system that may be critical to the establishment of outposts or habitats on other planets. Fission power technology can be applied on Earth's Moon, on Mars, or wherever NASA sees the need for continuous power." The joint NASA/DOE project is aiming to build a demonstration unit next year. Obviously, this will be welcome news to Mars colonization advocates; to have a dependable power source on the Martian surface will be of paramount importance. The habitats will need to have a constant power supply simply to keep the occupants alive. This will be "climate control" on an unprecedented level. Water extraction, reclamation and recycling; food cultivation and storage; oxygen production and carbon dioxide scrubbing; lighting; hardware, tools and electronics; waste management -- these are a few of the basic systems that will need to be powered from the moment humans set foot on the Red Planet, 24 hours 39 minutes a day (or "sol" -- a Martian day), 669 sols a year. Fission reactors can provide that. However, nuclear fission reactors have had a very limited part to play in space exploration up until now. Russia has launched over 30 fission reactors, whereas the US has launched only one. All have been used to power satellites. Radioisotope thermoelectric generators (RTGs), on the other hand, have played a very important role in the exploration of the solar system since 1961. These are not fission reactors, which split uranium atoms to produce heat that can then be converted into electricity. RTGs depend on small pellets of the radioisotope plutonium-238 to produce a steady heat as they decay. NASA's Pluto New Horizons and Cassini Solstice missions are equipped with RTGs (not solar arrays) for all their power needs. The Mars Science Laboratory (MSL), to be launched in November 2011, is powered by RTGs for Mars roving day or night. RTGs are great, but to power a Mars base, fission reactors would be desirable because they deliver more energy. And although solar arrays will undoubtedly have a role to play, fission reactors will be the premier energy source for the immediate future. "The biggest difference between solar and nuclear reactors is that nuclear reactors can produce power in any environment," said Werner. "Fission power technology doesn't rely on sunlight, making it able to produce large, steady amounts of power at night or in harsh environments like those found on the Moon or Mars. A fission power system on the Moon could generate 40 kilowatts or more of electric power, approximately the same amount of energy needed to power eight houses on Earth." "The main point is that nuclear power has the ability to provide a power-rich environment to the astronauts or science packages anywhere in our solar system and that this technology is mature, affordable and safe to use." Of course, to make these "mini-nuclear reactors" a viable option for the first moon and Mars settlements, they'll need to be compact, lightweight and safe. Werner contends that once the technology is validated, we'll have one of the most versatile and affordable power resources to support manned exploration of the solar system.

**extinction**

**Schulze-Makuch and Davies 2010** (Dirk Schulze-Makuch, Ph.D., School of Earth and Environmental Sciences, Washington State University and Paul Davies, Ph.D., Beyond Center, Arizona State University, “To Boldly Go: A One-Way Human Mission to Mars”, <http://journalofcosmology.com/Mars108.html>)

There are several reasons that motivate the establishment of a permanent Mars colony. We are a vulnerable species living in a part of the galaxy where cosmic events such as major asteroid and comet impacts and supernova explosions pose a significant threat to life on Earth, especially to human life. There are also more immediate threats to our culture, if not our survival as a species. These include global pandemics, nuclear or biological warfare, runaway global warming, sudden ecological collapse and supervolcanoes (Rees 2004). Thus, the colonization of other worlds is a must if the human species is to survive for the long term. The first potential colonization targets would be asteroids, the Moon and Mars. The Moon is the closest object and does provide some shelter (e.g., lava tube caves), but in all other respects falls short compared to the variety of resources available on Mars. The latter is true for asteroids as well. Mars is by far the most promising for sustained colonization and development, because it is similar in many respects to Earth and, crucially, possesses a moderate surface gravity, an atmosphere, abundant water and carbon dioxide, together with a range of essential minerals. Mars is our second closest planetary neighbor (after Venus) and a trip to Mars at the most favorable launch option takes about six months with current chemical rocket technology.

**Plan solves military oil entanglement**

Buis ’12 (Tom Buis, CEO, Growth Energy, Co-written by Buis and Growth Energy Board Co-Chair Gen. Wesley K. Clark (Ret.), “American Families Need American Fuel”, <http://energy.nationaljournal.com/2012/05/powering-our-military-whats-th.php>, May 23, 2012, LEQ)

Our nation is dangerously dependent on foreign oil. We import some 9 million barrels per day, or over 3 billion barrels per year; the U.S. military itself comprises two percent of the nation’s total petroleum use, making it the world’s largest consumer of energy and oil imports. Of U.S. foreign oil imports, one out of five barrels comes from unfriendly nations and volatile areas, including at least 20 percent stemming from the Persian Gulf, including Bahrain, Iraq, Iran, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates. Further, our nation heavily relies on hot-beds of extremism, as Saudi Arabia, Venezuela, Nigeria are our third, fourth, and fifth, respectively, largest exporters of oil. How dangerous is this? Very! Not only does America’s huge appetite for oil entangle us into complicated relationships with nations marred by unstable political, economic, and security situations, it also gravely impacts our military, who risk their lives daily to protect foreign energy supply routes. Because of our addiction to oil, we have been in almost constant military conflict, lost more than 6,500 soldiers and created a whole new class of wounded warriors, thousands of whom will need long-term care funded by our government. One in eight soldiers killed or wounded in Iraq from 2003-2007 were protecting fuel convoys, with a total of 3,000 Army casualties alone. We maintain extra military forces at an annual cost of about $150 billion annually, just to assure access to foreign oil - because we know that if that stream of 9 million barrels per day is seriously interrupted, our economy will crash. That's what I call dangerously dependent. Even worse, according to a new Bloomberg Government analysis, Pentagon spending on fuel is dramatically increasing. This will force the military to dedicate even more funds toward energy costs, at the expense of other priorities, like training and paying soldiers. In fact, every $.25 increase in the cost of jet fuel makes a $1 billion difference in the Department of Defense’s bottom line – a debt that will be passed along to the American taxpayer. And if that's not enough to make you want to avoid foreign oil, then consider this: every dollar hike in the international, politically-rigged price of oil hands Iran about $3 million more per day, that their regime can use to sow mischief, fund terrorism, and develop missiles and nuclear weapons. Enough is enough! We have domestic alternatives that can protect American interests, and promote prosperity and security – including, more domestic oil production, using natural gas and biofuels, like ethanol, as fuel, converting coal to liquid fuel, and moving as rapidly as possible to vehicles powered by green energy. By introducing clean energy and fuel alternatives, this would rapidly reduce both the strain of securing foreign energy supply routes in unstable regions, as well as unnecessary economic and political entanglement with volatile regimes. It is imperative the U.S. military leverage its position as a leader and enact pertinent energy policies to best enhance American energy – and national – security.

**These will risk wars that will escalate**

Collina 5 (Executive Director of 20-20 Vision, Tom Z. Collina, Executive Director of 20-20Vision; testimony in front of Committee on Foreign Relations Subcommittee on Near Eastern and South Asian Affairs United States Senate “Oil Dependence and U.S. Foreign Policy: Real Dangers, Realistic Solutions”. October 19, 2005 <http://www.globalsecurity.org/military/library/congress/2005_hr/051020-collina.pdf>)

More conflicts in the Middle East America imports almost 60% of its oil today and, at this rate, we’ll import 70% by 2025. Where will that oil come from? Two-thirds of the world’s oil is in the Middle East, primarily in Saudi Arabia, Iran and Iraq. The United States has less than 3% of global oil. The Department of Energy predicts that North American oil imports from the Persian Gulf will double from 2001 to 2025.i Other oil suppliers, such as Venezuela, Russia, and West Africa, are also politically unstable and hold no significant long-term oil reserves compared to those in the Middle East. Bottom line: our economy and security are increasingly dependent on one of the most unstable regions on earth. Unless we change our ways, we will find ourselves even more at the mercy of Middle East oil and thus more likely to get involved in future conflicts. The greater our dependence on oil, the greater the pressure to protect and control that oil. The growing American dependence on imported oil is the primary driver of U.S. foreign and military policy today, particularly in the Middle East, and motivates an aggressive military policy now on display in Iraq. To help avoid similar wars in the future and to encourage a more cooperative, responsible, and multilateral foreign policy the United States must significantly reduce its oil use. Before the Iraq war started, Anthony H. Cordesman of the Center for Strategic and International Studies said: “Regardless of whether we say so publicly, we will go to war, because Saddam sits at the center of a region with more than 60 percent of all the world's oil reserves.” Unfortunately, he was right. In fact, the use of military power to protect the flow of oil has been a central tenet of U.S. foreign policy since 1945. That was the year that President Franklin D. Roosevelt promised King Abdul Aziz of Saudi Arabia that the United States would protect the kingdom in return for special access to Saudi oil—a promise that governs U.S. foreign policy today. This policy was formalized by President Jimmy Carter in 1980 when he announced that the secure flow of oil from the Persian Gulf was in “the vital interests of the United States of America” and that America would use “any means necessary, including military force” to protect those interests from outside forces. This doctrine was expanded by President Ronald Reagan in 1981 to cover internal threats, and was used by the first President Bush to justify the Gulf War of 1990-91, and provided a key, if unspoken rationale for the second President Bush’s invasion of Iraq in 2003.ii The Carter/Reagan Doctrine also led to the build up of U.S. forces in the Persian Gulf on a permanent basis and to the establishment of the Rapid Deployment Force and the U.S. Central Command (CENTCOM). The United States now spends over $50 Billion per year (in peacetime) to maintain our readiness to intervene in the Gulf.iii America has tried to address its oil vulnerability by using our military to protect supply routes and to prop up or install friendly regimes. But as Iraq shows the price is astronomical—$200 Billion and counting. Moreover, it doesn’t work—Iraq is now producing less oil than it did before the invasion. While the reasons behind the Bush administration’s decision to invade Iraq may be complex, can anyone doubt that we would not be there today if Iraq exported coffee instead of oil? It is time for a new approach. Americans are no longer willing to support U.S. misadventures in the Persian Gulf. Recent polls show that almost two-thirds of Americans think the Iraq war was not worth the price in terms of blood and treasure. Lt. Gen William Odom, director of the National Security Agency during President Reagan's second term, recently said: "The invasion of Iraq will turn out to be the greatest strategic disaster in U.S. history." The nation is understandably split about what to do now in Iraq, but there appears to be widespread agreement that America should not make the same mistake again—and we can take a giant step toward that goal by reducing our dependence on oil.

**SMRs solve inevitable water wars**

**Palley ’11** Reese Palley, The London School of Economics, 2011, The Answer: Why Only Inherently Safe, Mini Nuclear Power Plans Can Save Our World, p. 168-71

The third world has long been rent in recent droughts, by the search for water. In subsistence economies, on marginal land, water is not a convenience but a matter of life and death. As a result small **wars have been fought, rivers diverted, and wells poisoned in what could be a warning of what is to come as industrialized nations begin to face failing water supplies.** Quite aside from the demand for potable water is the dependence of enormous swaths of industry and agriculture on oceans of water used for processing, enabling, and cleaning a thousand processes and products. It is interesting to note that fresh water used in both industry and agriculture is reduced to a nonrenewable resource as agriculture adds salt and industry adds a chemical brew unsuitable for consumption. More than one billion people in the world already lack access to clean water, and things are getting worse. Over the next two decades, the average supply of water per person will drop by a third, **condemning millions** of people **to** waterborne **diseases** and an avoidable premature death.81 So **the stage is set for water access wars between** the **first and the third worlds**, between **neighbors** downstream of supply, between **big industry** and big agriculture, between **nations**, between **population** centers, and ultimately between you and the people who live next door for an already inadequate world water supply that is not being renewed. **As populations inevitably increase, conflicts will intensify**.82 It is only by virtue of the historical accident of the availability of nuclear energy that humankind now has the ability to remove the salt and other pollutants to supply all our water needs. The problem is that **desalination is an intensely local process**. Some localities have available sufficient water from renewable sources to take care of their own needs, but not enough to share with their neighbors, and it **is here that the scale of nuclear energy production must be defined locally.** Large scale 1,000 MWe plants can be used to desalinate water as well as for generating electricity However we cannot build them fast enough to address the problem, and, if built they would face the extremely expensive problem of distributing the water they produce. Better, much better, would be to use small desalinization plants sited locally. Beyond desalination for human use is the need to green some of the increasing desertification of vast areas such as the Sahara. Placing twenty 100 MWe plants a hundred miles apart along the Saharan coast would green the coastal area from the Atlantic Ocean to the Red Sea, a task accomplished more cheaply and quickly than through the use of gigawatt plants.83 This could proceed on multiple tracks wherever deserts are available to be reclaimed. Leonard Orenstein, a researcher in the field of desert reclamation, speculates: If most of the Sahara and Australian outback were planted with fast-growing trees like eucalyptus, the forests could draw down about 8 billion tons of carbon a year—nearly as much as people emit from burning fossil fuels today. As the forests matured, they could continue taking up this much carbon for decades.84 **The use of small, easily transported**, easily **sited**, and walk away **safe nuclear reactors dedicated to desalination is the only answer** to the disproportionate distribution of water resources that have distorted human habitation patterns for millennia. Where there existed natural water, such as from rivers, great cities arose and civilizations flourished. Other localities lay barren through the ages. We now have the power, by means of SMRs profiled to local conditions, not only to attend to existing water shortages but also to smooth out disproportionate water distribution and create green habitation where historically it has never existed. **The endless wars that have been fought**, first over solid bullion gold and then over oily black gold, **can now engulf us in the desperate reach for liquid blue gold. We need never fight these wars again as we now have the nuclear power to fulfill the** biblical **ability to “strike any local rock and have water gush forth**.”

**SMRs solve North Korean prolif**

**Goodby and Heiskanen 12**¸ James, former arms control negotiator and a Hoover Institution Fellow, Markku, Associate and Program Director of The Asia Institute at the Kyung Hee University in Seoul [“The Seoul Nuclear Security Summit: New Thinking in Northeast Asia?” March 20th, <http://nautilus.org/napsnet/napsnet-policy-forum/the-seoul-nuclear-security-summit-new-thinking-in-northeast-asia/>]

The nuclear crises in the Middle East and Northeast Asia and the stalled promise of a nuclear renaissance in civil nuclear power could all be solved by a more rational approach to the generation of electric power. Although it will take years before the current, outdated system is replaced, the Seoul meeting could provide a political impetus. The new system would rest on three legs: small modular reactors (“mini-reactors”), internationally managed nuclear fuel services, and increasing reliance on the distributed (local) generation of electricity. After the disaster in Fukushima, there has been an understandable retreat from plans for large-scale reactors, with their inevitable safety issues. A vivid example of this reaction is found in Germany, which has cancelled its plans to increase the generation of electricity from nuclear reactors even though they are cleaner and more dependable than most other sources currently available. Vulnerabilities and inefficiencies of long-distance transmission lines point to a paradigm for generation and distribution of electric power that is more local – connected to national grids, to be sure, but able to operate independently of them. This is an ideal situation for mini-reactors, which are safer and less prone to encourage the spread of nuclear weapons. Internationally managed nuclear fuel services already exist and the security of supply can be assured by policies that foster more fuel service centers in Asia and elsewhere, including in the United States. These factors would enable suppliers of mini-reactors to expand their business to nations like North Korea and Iran under IAEA safeguards. The relevance of this energy paradigm to resolving the issues in North Korea and Iran is evident: both nations could develop civil nuclear programs with assured supplies of nuclear fuel from multiple internationally managed fuel service centers in Russia, China, and Western Europe while avoiding the ambiguity of nationally operated plutonium reprocessing and uranium enrichment. Reliance on distributed generation of electricity would be more efficient and less prone to blackouts. And the presence of a level playing field should be apparent from the fact that similar arrangements would be the 21st-century way of generating electricity from nuclear energy in the developed economies as well as in energy-starved economies such as India and China.

**Nuclear war**

**Hayes & Hamel-Green ’10** [\*Victoria University AND \*\*Executive Director of the Nautilus Institute (Peter and Michael, “-“The Path Not Taken, the Way Still Open: Denuclearizing the Korean Peninsula and Northeast Asia”, 1/5, http://www.nautilus.org/fora/security/10001HayesHamalGreen.pdf]

The consequences of failing to address the proliferation threat posed by the North Korea developments, and related political and economic issues, are serious, not only for the Northeast Asian region but for the whole international community. At worst, there is the possibility of nuclear attack1, whether by intention, miscalculation, or merely accident, leading to the resumption of Korean War hostilities. On the Korean Peninsula itself, key population centres are well within short or medium range missiles. The whole of Japan is likely to come within North Korean missile range. Pyongyang has a population of over 2 million, Seoul (close to the North Korean border) 11 million, and Tokyo over 20 million. Even a limited nuclear exchange would result in a holocaust of unprecedented proportions. But the catastrophe within the region would not be the only outcome. New research indicates that even a limited nuclear war in the region would rearrange our global climate far more quickly than global warming. Westberg draws attention to new studies modelling the effects of even a limited nuclear exchange involving approximately 100 Hiroshima-sized 15 kt bombs2 (by comparison it should be noted that the United States currently deploys warheads in the range 100 to 477 kt, that is, individual warheads equivalent in yield to a range of 6 to 32 Hiroshimas).The studies indicate that the soot from the fires produced would lead to a decrease in global temperature by 1.25 degrees Celsius for a period of 6-8 years.3 In Westberg’s view: That is not global winter, but the nuclear darkness will cause a deeper drop in temperature than at any time during the last 1000 years. The temperature over the continents would decrease substantially more than the global average. A decrease in rainfall over the continents would also follow...The period of nuclear darkness will cause much greater decrease in grain production than 5% and it will continue for many years...hundreds of millions of people will die from hunger...To make matters even worse, such amounts of smoke injected into the stratosphere would cause a huge reduction in the Earth’s protective ozone.4 These, of course, are not the only consequences. Reactors might also be targeted, causing further mayhem and downwind radiation effects, superimposed on a smoking, radiating ruin left by nuclear next-use. Millions of refugees would flee the affected regions. The direct impacts, and the follow-on impacts on the global economy via ecological and food insecurity, could make the present global financial crisis pale by comparison. How the great powers, especially the nuclear weapons states respond to such a crisis, and in particular, whether nuclear weapons are used in response to nuclear first-use, could make or break the global non proliferation and disarmament regimes. There could be many unanticipated impacts on regional and global security relationships5, with subsequent nuclear breakout and geopolitical turbulence, including possible loss-of-control over fissile material or warheads in the chaos of nuclear war, and aftermath chain-reaction affects involving other potential proliferant states. The Korean nuclear proliferation issue is not just a regional threat but a global one that warrants priority consideration from the international community

# 2ac obama good

**Romney’s all talk---he’d work with Russia**

Gasyuk 12 (Gasyuk, Rossiyskaya Gazeta’s Washington D.C. correspondent, 6-13, “Romney keeps the gloves off”, http://rbth.ru/articles/2012/06/13/romney\_keeps\_the\_gloves\_off\_15854.html)

Given the sharp disagreements between the United States and Russia on Syria, which is now careening toward civil war, Republicans will harshly criticize every attempt by Obama to further emphasize any progress in bilateral relations. “Some realism regarding U.S.-Russia relations would be constructive for the White House if it wants to avoid Republican attacks,” Simes told Russia Now. But this doesn’t mean that presumptive GOP nominee Mitt Romney, if elected, will transform his public anti-Russian statements into political practice. “I believe that most likely Governor Romney believes in the statements he made, but that does not mean that in practice this rhetoric will be his guide for action,” Simes said. “Many statements from the GOP candidates including those on foreign affairs surely have to be taken in the context of the political and electoral reality in the U.S.,” Aron said. “It is not only possible, but highly probable,” that Mitt Romney’s views on Russia will evolve if he is elected, Simes said. American political history is rife with examples of strategic U-turns that begin the morning after the inauguration balls. When Dwight Eisenhower ran for president, his advisers—such as the famous John Foster Dulles—spoke of Harry Truman’s “cowardly” policy of containment of the Soviet Union and called for the speedy liberation of Eastern Europe. However President Eisenhower instead started the process of normalizing relations through personal meetings with Nikita Khrushchev in 1955 and 1959. President Richard Nixon was viewed as a leading anti-Communist, but it was Nixon who found the way toward detente. Nixon made the first-ever trip by an American president to then-Communist Russia in 1972, but also opened the door to dialogue with Communist China. No one should be too surprised that Mitt Romney, if elected, might rethink his position. When needed for supply routes, Russia is no longer America’s “number one geopolitical foe.” As a president, many observers believe he would take a more realistic approach to handling bilateral ties.

**No impact**

Ostapenko 9---Trend Daily News staff writer (E., 7/7, “Normalization In U.s.-russian Relations Not To Change Political Situation In World: Analyst At French Studies Institute”, http://www.turkishweekly.net/news/83734/-normalization-in-u-s-russian-relations-not-to-change-political-situation-in-world-analyst-at-french-studies-institute-.html)

Normalization of relations between the United States and Russia will not assume a global significance and will not change the situation in the world, since today Russia does not play the role it played formerly, Dominic Moisi, analyst on Russian-American relations, said. "There is a country that is essential for the future of the world, it is not Russia, but it is China," Moisi, founder and senior advisor at the French Institute for International Relations (IFRI), told Trend News in a telephone conversation from Paris

Speaking of the growing role of China, Moisi said that the Chinese are soon going to be the number two economy in the world. Russian economy can not compete. As another important aspect of the increasing weight of China in the world, Moisi considers the absence of problems with the aging of population, unlike European countries, including Russia.

Nordic Intel 10/2 – Nordic Intel is based in Helsinki, Finland, and provides a professional research and analysis service focused on the Nordic Region and surrounding countries in Northern Europe, specifically: Denmark (including Greenland and the Faroe Islands), Finland (including the Åland Islands), Iceland, Norway, Sweden, Estonia, Russia (“Sources of tension between the United States and Russia,” http://nordicintel.com/sources-of-tension-between-the-united-states-and-russia/)

In recent Nordic Intel Insights we have sometimes referred to the ongoing tension between the United States and Russia as it relates to missile defence, policies towards Syria, Iran, Georgia and Venezuela, sanctions against Russian officials, NATO enlargement, intelligence operations and Russia’s military modernisation plan. In this article we summarise major sources of tension between the two countries to provide a better understanding of their troubled relationship which some analysts describe as a ‘New Cold War’.

**Romney winning now – most qualified models.**

Caughey and Kelly 10-4. [Peter, David, CU-Boulder media relations, "Updated election forecasting model still points to Romney win, University of Colorado study says" University of Colorado Boulder Press Release -- www.colorado.edu/news/releases/2012/10/04/updated-election-forecasting-model-still-points-romney-win-university]

An update to an election forecasting model announced by two University of Colorado professors in August continues to project that Mitt Romney will win the 2012 presidential election.¶ According to their updated analysis, Romney is projected to receive 330 of the total 538 Electoral College votes. President Barack Obama is expected to receive 208 votes -- down five votes from their initial prediction -- and short of the 270 needed to win.¶ The new forecast by political science professors Kenneth Bickers of CU-Boulder and Michael Berry of CU Denver is based on more recent economic data than their original Aug. 22 prediction. The model itself did not change.¶ “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.”¶ While many election forecast models are based on the popular vote, the model developed by Bickers and Berry is based on the Electoral College and is the only one of its type to include more than one state-level measure of economic conditions. They included economic data from all 50 states and the District of Columbia.¶ Their original prediction model was one of 13 published in August in PS: Political Science & Politics, a peer-reviewed journal of the American Political Science Association. The journal has published collections of presidential election models every four years since 1996, but this year the models showed the widest split in outcomes, Berry said. Five predicted an Obama win, five forecast a Romney win, and three rated the 2012 race as a toss-up.¶ The Bickers and Berry model includes both state and national unemployment figures as well as changes in real per capita income, among other factors. The new analysis includes unemployment rates from August rather than May, and changes in per capita income from the end of June rather than March. It is the last update they will release before the election.¶ Of the 13 battleground states identified in the model, the only one to change in the update was New Mexico -- now seen as a narrow victory for Romney. The model foresees Romney carrying New Mexico, North Carolina, Virginia, Iowa, New Hampshire, Colorado, Wisconsin, Minnesota, Pennsylvania, Ohio and Florida. Obama is predicted to win Michigan and Nevada.¶ In Colorado, which Obama won in 2008, the model predicts that Romney will receive 53.3 percent of the vote to Obama’s 46.7 percent, with only the two major parties considered.¶ While national polls continue to show the president in the lead, “the president seems to be reaching a ceiling at or below 50 percent in many of these states,” Bickers said. “Polls typically tighten up in October as people start paying attention and there are fewer undecided voters.”¶ The state-by-state economic data used in their model have been available since 1980. When these data were applied retroactively to each election year, the model correctly classifies all presidential election winners, including the two years when independent candidates ran strongly: 1980 and 1992. It also correctly estimates the outcome in 2000, when Al Gore won the popular vote but George W. Bush won the election through the Electoral College.

**no link – GoP won’t politicize the plan**

Davenport ’12 (Coral Davenport is the energy and environment correspondent for National Journal. Prior to joining National Journal in 2010, Davenport covered energy and environment for Politico, and before that, for Congressional Quarterly, “Pentagon's Clean-Energy Initiatives Could Help Troops—and President Obama”, <http://www.nationaljournal.com/pentagon-s-clean-energy-initiatives-could-help-troops-and-president-obama-20120411?mrefid=site_search>, April 11, 2012, LEQ)

The Pentagon plans to roll out a new slate of clean- and renewable-energy initiatives on Wednesday as part of its long-term “Operational Energy Strategy” aimed at reducing the military’s dependence on fossil fuels while increasing its front-line fighting power. The moves are in keeping with a sustained push by the military in recent years to cut its dependence on oil, which costs the Pentagon up to $20 billion annually and has led to the deaths of thousands of troops and contractors, killed while guarding fuel convoys in Iraq and Afghanistan. Some renewable-energy projects at the Defense Department are already paying big dividends. Pentagon efforts to research and deploy products like hybrid batteries for tanks have enabled combat vehicles to travel farther without refueling, while advances in portable solar generation have allowed troops on the front lines in Afghanistan to power housing and electronic facilities without requiring fuel convoys to make dangerous drives through hostile territory to deliver the diesel required for traditional generators. It doesn’t hurt that the initiatives also tie in politically with President Obama’s unwavering support for clean energy on the campaign trail—even as Republicans continue to attack him almost daily on energy issues. GOP and conservative “super PACs” have no problem hitting Obama for his support of renewable-energy programs in the wake of the bankruptcy of Solyndra, the solar panel company that cost the federal government $535 million in loan guarantees from the economic stimulus law. But politically, it’s a lot harder for traditionally hawkish Republicans to criticize the Pentagon’s embrace of renewable power, which Defense officials have repeatedly made clear is not being done in the interest of an environmental agenda, but rather to increase security and fighting capability on the front lines. Defense officials have also emphasized that much of the funding for the Pentagon’s renewable-energy initiatives won’t come from taxpayer dollars. On Tuesday, a Defense official said that the construction of renewable-electricity plants for Army and Air Force bases–which the official said could cost up to $7 billion—will be privately financed.

**Energy not key to voters**

Farnam, 12 -- Washington Post politics and business reporter (T.W. "Energy issue gets jolt of ads," Washington Post, 6-29-12, l/n, accessed 8-27-12, mss)

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 about 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 seen $2.7 million worth of 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 linking 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. Much to gain or lose In a campaign focused heavily on jobs and the economy, all of this focus on 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 campaign 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.

**Nuclear power popular**

Brown ’12 (Dave Brown — Exclusive to Uranium Investing News, “United States Still Favors Nuclear Power”, <http://uraniuminvestingnews.com/11008/united-states-still-favors-nuclear-power.html>, March 28, 2012, LEQ)

According to the results of Gallup’s annual Environment survey, conducted earlier this month, the majority of Americans continue to favor nuclear energy as a source of electricity for the United States. The survey indicated that 57 percent of participants were in favor of nuclear power this year, the same amount as in 1994, the first year for the survey. This year’s results also demonstrate an equal level of support among participants as last year, just prior to the Japanese earthquake and tsunami. Support for the nuclear industry as measured by the survey has ranged from a low of 46 percent in 2001 to a high of 62 percent in 2010. These results are of significance to investors as the US is the largest consumer of uranium in the world, with 104 operational nuclear reactors. Continued public support and confidence from the country should guide future political decisions and foster economic interest in domestic and international uranium resources as well as in nuclear industry stakeholders.

**econ outweighs the plan**

Pew 12. [Pew Research Center, “GOP Holds early turnout edge, but little enthusiasm for Romney” June 21 -- http://www.people-press.org/2012/06/21/section-2-assessing-obama-and-romneys-support/]

Economy Dominates Voter Concerns¶ Economic conditions are at the forefront of most voters’ concerns. When asked to name the issue they would most like to hear the candidates talk about, 56% mention one of three economic topics: the economy broadly (42%), the job situation (13%) or the budget deficit (4%). Health care is the only other issue garnering more than one-in-ten mentions (18%).¶ A separate close-ended question echoes these economic concerns. When offered six choices, a plurality of voters (35%) say that jobs will be the top issue in deciding their vote for president this year, followed by the budget deficit (23%) and health care (19%). Another 11% say Social Security will matter most to them, with relatively few citing immigration (5%) or gay marriage (4%) as the most important issue affecting their vote.¶ Jobs top the list for both certain Obama supporters (37%) and swing voters (38%), while certain Romney supporters are about equally likely to say jobs (30%) as to say the budget deficit (33%). Health care is more frequently named by certain Obama voters (26%) than either certain Romney (14%) or swing voters (15%).

**Winners win**

**Halloran 10,** Liz Halloran is a Washington correspondent for NPR “For Obama, What A Difference A Week Made,” NPR April 6

Amazing what a win in a major legislative battle will do for a president's spirit. (Turmoil over spending and leadership at the Republican National Committee over the past week, and the release Tuesday of a major new and largely sympathetic book about the president by New Yorker editor David Remnick, also haven't hurt White House efforts to drive its own, new narrative.) Though the president's national job approval ratings failed to get a boost by the passage of the health care overhaul — his numbers have remained steady this year at just under 50 percent — he has earned grudging respect even from those who don't agree with his policies. "He's achieved something that virtually everyone in Washington thought he couldn't," says Henry Olsen, vice president and director of the business-oriented American Enterprise Institute's National Research Initiative. "And that's given him confidence." The protracted health care battle looks to have taught the White House something about power, says presidential historian Gil Troy — a lesson that will inform Obama's pursuit of his initiatives going forward. "I think that Obama realizes that presidential power is a muscle, and the more you exercise it, the stronger it gets," Troy says. "He exercised that power and had a success with health care passage, and now he wants to make sure people realize it's not just a blip on the map." The White House now has an opportunity, he says, to change the narrative that had been looming — that the Democrats would lose big in the fall midterm elections, and that Obama was looking more like one-term President Jimmy Carter than two-termer Ronald Reagan, who also managed a difficult first-term legislative win and survived his party's bad showing in the midterms. Approval Ratings Obama is exuding confidence since the health care bill passed, but his approval ratings as of April 1 remain unchanged from the beginning of the year, according to Pollster.com. What's more, just as many people disapprove of Obama's health care policy now as did so at the beginning of the year. According to the most recent numbers: Forty-eight percent of all Americans approve of Obama, and 47 disapprove. Fifty-two percent disapprove of Obama's health care policy, compared with 43 percent who approve. Stepping Back From A Precipice Those watching the re-emergent president in recent days say it's difficult to imagine that it was only weeks ago that Obama's domestic agenda had been given last rites, and pundits were preparing their pieces on a failed presidency. Obama himself had framed the health care debate as a referendum on his presidency. A loss would have "ruined the rest of his presidential term," says Darrell West, director of governance studies at the liberal-leaning Brookings Institution. "It would have made it difficult to address other issues and emboldened his critics to claim he was a failed president." The conventional wisdom in Washington after the Democrats lost their supermajority in the U.S. Senate when Republican Scott Brown won the Massachusetts seat long held by the late Sen. Edward Kennedy was that Obama would scale back his health care ambitions to get something passed. "I thought he was going to do what most presidents would have done — take two-thirds of a loaf and declare victory," says the AEI's Olsen. "But he doubled down and made it a vote of confidence on his presidency, parliamentary-style." "You've got to be impressed with an achievement like that," Olsen says. But Olsen is among those who argue that, long-term, Obama and his party would have been better served politically by an incremental approach to reworking the nation's health care system, something that may have been more palatable to independent voters Democrats will need in the fall. "He would have been able to show he was listening more, that he heard their concerns about the size and scope of this," Olsen says. Muscling out a win on a sweeping health care package may have invigorated the president and provided evidence of leadership, but, his critics say, it remains to be seen whether Obama and his party can reverse what the polls now suggest is a losing issue for them. Golden Boy Tested One of the questions that has trailed Obama is how he would deal with criticism and the prospect of failure, says Troy, a McGill University history professor and visiting scholar affiliated with the bipartisan Policy Center in Washington. "He is one of those golden boys who never failed in his life, and people like that are often not used to criticism and failure," Troy says. Obama and his campaign were temporarily knocked for a loop early in the 2008 presidential campaign by then-GOP vice presidential candidate Sarah Palin's "zingers," Troy says, "and Obama was thrown off balance again by the loss of the Massachusetts Senate seat." The arc of the health care debate reminded observers that Obama is not just a product of Harvard, but also of tough Chicago politics, Troy says. "You don't travel as far and as fast as Barack Obama without having a spine of steel," he says. "He has an ability to regenerate, to come back, and knows that there is no such thing as a dirty win: a win is a win" — even if it infuriates the progressive wing of the president's party, which wanted far more sweeping changes to the nation's health care system. GOP Stumbles Obama's new mojo has been abetted, in a way, by high-profile troubles at the Republican National Committee. RNC Chairman Michael Steele has been under fire over the past week for his spending on private jets and limousines, and a staffer resigned after submitting to the committee a nearly $2,000 tab for a visit by young party members to a risque Los Angeles nightclub. The disarray intensified Monday with the resignation of the committee's chief of staff, and growing anger among top GOP strategists and fundraisers. "Steele has kept Republicans off-message," says West, of Brookings. "Every story about RNC spending is one less story about their views on health care at a time when news coverage has shifted in a more favorable direction." The distraction continued Monday when detractors accused Steele of playing the race card after he told ABC News that as an African American, he, like Obama, is being held to a higher standard. White House Spokesman Robert Gibbs, when asked about Steele's assertion, said the RNC chairman's problem "isn't the race card, it's the credit card." The controversy, Olsen says, hasn't been good for the Republicans' preparations for elections in terms of money and organization. But he doesn't view it as "a voter issue." How Win Translates When Reagan won his tough legislative battle in the early 1980s, it was over tax cuts, something voters saw as directly related to the then-dismal economy. Obama has long made a case for health care reform as a big piece of economic reform, but it's a difficult argument to make to voters, Olsen says, particularly when many of the health care law's major provisions don't go into effect for another four years. But observers like Troy say they believe that though initially unrelated, a boost in employment among Americans would encourage voters to look more favorably on the health care overhauls. "The perceived success of health care legislation rides on job creation," Troy says. Economists have recently declared the nation's recession, which began in 2007, over. But the unemployment rate has remained stubbornly at just under 10 percent. "I think he understands he's in a crucial period of his presidency," Olsen says. "He's taken a lot of risks, and there's not immediate rewards." Obama faces continuing tests on other big domestic issues, including Wall Street reform, the economy and climate change, as well as myriad foreign policy challenges ranging from testy relations with Israel and uncertainties about Iran's nuclear capabilities, to wars in Iraq and Afghanistan. Late last month, the administration and Russia agreed to a new nuclear arms treaty that is expected to be signed Thursday in advance of an international summit in Washington. The world is waiting, Troy says, to see how the president's renewed confidence plays out on the international stage. But the newly invigorated president continues to encourage voters to wait and see what his efforts produce.

**Obama legalizes pot as an October surprise**

Mark **Whittington**, 6-14-**2012**, writer and computer analyst residing in Houston Obama’s October Surprise Could Be Legalizing Pot, Yahoo! News, p. http://news.yahoo.com/obamas-october-surprise-could-legalizing-pot-191100768.html, accessed 9-10-2012

The Atlantic Wire believes that it has hit upon President Obama's surefire October Surprise to change his political fortunes andget him re-electedfor a second term. That October surprise would be for him to support the legalization of pot. This last-minute gambit has an advantage to starting a war, being that no one would get killed. The theory is that young voters,disenchanted with Obama because of the fact they are still living in their parents' garage three years after graduation and can't get a job, will be motivated to turn out for him because he supports legalized dope smoking. The Washington Post related David Maraniss' claims of Barack Obama being a pothead during his high school days. The gambit would also answer Penn Jillette's recent rant on the hypocrisy of Obama, a self-admitted former doper, enforcing drug laws that put people like he used to be in jail. The idea that Obama can get potheads motivated enough to turn off "The Daily Show," get off the couch, and go to the polls is a very charming one. To be sure, people voting while stoned could explain a lot of election results -- the re-election of Jerry Brown as governor of California comes to mind. But the legalized pot gambit has some pitfalls. Millions of people, likely more than who toke while laughing hysterically at Bill Maher, are against legalized drug use. Rasmussen suggested that a plurality of 47 percent of Americans favor legalizing marijuana and taxing it, which makes the say yes to drugs gambit just a little tempting to a president facing defeat in November. But such a move could be turned back on Obama fairly quickly. Mitt Romney, whose skill at the political riposte has become well known, would have lots of fun with an Obama legalize dope initiative. What next, he will ask. Selling crystal meth to school kids from vending machines? And if Obama proposed taxing pot at the same time, Romney would think that the good lord really does want him to be president. The conservative base likes few things less, besides gays getting married, than legalized dope and raising taxes, even on legalized dope. What, Obama would ask, does this have to do with a bad economy? One hope would be left for Obama: a stimulus package for pot growers. It may be his only hope.