# Case

## Grid

#### Status quo solves grid cyber vulnerability

Paul Clark 12, MA Candidate, Intelligence/Terrorism Studies, American Military University; Senior Analyst, Chenega Federal Systems, 4/28/12, “The Risk of Disruption or Destruction of Critical U.S. Infrastructure by an Offensive Cyber Attack,” http://blog.havagan.com/wp-content/uploads/2012/05/The-Risk-of-Disruption-or-Destruction-of-Critical-U.S.-Infrastructure-by-an-Offensive-Cyber-Attack.pdf

An attack against the electrical grid is a reasonable threat scenario since power systems are "a high priority target for military and insurgents" and there has been a trend towards utilizing commercial software and integrating utilities into the public Internet that has "increased vulnerability across the board" (Lewis 2010). Yet the increased vulnerabilities are mitigated by an increased detection and deterrent capability that has been "honed over many years of practical application" now that power systems are using standard, rather than proprietary and specialized, applications and components (Leita and Dacier 2012). The security of the electrical grid is also enhanced by increased awareness after a smart-grid hacking demonstration in 2009 and the identification of the Stuxnet malware in 2010: as a result the public and private sector are working together in an "unprecedented effort" to establish robust security guidelines and cyber security measures (Gohn and Wheelock 2010).

#### Squo solves islanding---the military adapted

Michael Aimone 9-12, Director, Business Enterprise Integration, Office of the Deputy Under Secretary of Defense (Installations and Environment), 9/12/12, Statement Before the House Committee on Homeland Security, Subcommittee on Cybersecurity, Infrastructure Protection and Security Technologies, http://homeland.house.gov/sites/homeland.house.gov/files/Testimony%20-%20Aimone.pdf

DoD’s facility energy strategy is also focused heavily on grid security in the name of mission assurance. Although the Department’s fixed installations traditionally served largely as a platform for training and deployment of forces, in recent years they have begun to provide direct support for combat operations, such as unmanned aerial vehicles (UAVs) flown in Afghanistan from fixed installations here in the United States. Our fixed installations also serve as staging platforms for humanitarian and homeland defense missions. These installations are largely dependent on a commercial power grid that is vulnerable to disruption due to aging infrastructure, weather-related events, and potential kinetic, cyber attack. In 2008, the Defense Science Board warned that DoD’s reliance on a fragile power grid to deliver electricity to its bases places critical missions at risk.1 ¶ Standby Power Generation ¶ Currently, DoD ensures that it can continue mission critical activities on base largely through its fleet of on-site power generation equipment. This equipment is connected to essential mission systems and automatically operates in the event of a commercial grid outage. In addition, each installation has standby generators in storage for repositioning as required. Facility power production specialists ensure that the generators are primed and ready to work, and that they are maintained and fueled during an emergency. With careful maintenance these generators can bridge the gap for even a lengthy outage. As further back up to this installed equipment, DoD maintains a strategic stockpile of electrical power generators and support equipment that is kept in operational readiness. For example, during Hurricane Katrina, the Air Force transported more than 2 megawatts of specialized diesel generators from Florida, where they were stored, to Keesler Air Force Base in Mississippi, to support base recovery.

## Arctic

#### LOST, icebreakers, and lack of infrastructure prevent Arctic leadership

Heimbuch 8/31 (Hannah, The Arctic Sounder, “A sustainable Arctic”, http://www.thearcticsounder.com/article/1235a\_sustainable\_arctic)

Throughout the conference, leaders from Washington, D.C., Alaska and abroad emphasized the need for a greater presence — politically, financially and otherwise — from top U.S. leaders in Arctic matters. The U.S. continues to lag behind other Arctic nations, and some non-Arctic nations, in the race to control northern resources, officials said.¶ Sen. Lisa Murkowski pointed out that on either side of Alaska, Russia and Canada are racing toward Arctic development.¶ "It's frustrating to watch what's happening in other areas of the globe," Murkowski said. "Alaska can't be forced to sit in the middle of this activity bearing all of the same risk but potentially none of the reward. I want us as an Arctic nation to lead when it comes to our resource development potential — lead in such a way that there is a respect and a care for our environment that puts us head-and-shoulders above anyone else, because this is our land. This is where we live."¶ This lagging behind is marked by the lack of U.S. icebreakers — America has one to Russia's 33, Canada's six and China's nine — and hesitance to fund the major infrastructure required to support a safe, efficient and lucrative Arctic market. Leaders pointed to shipping regulations and ports, national security and an efficient permitting system that allows for an attractive investment climate, to name a few.¶ A major decision facing U.S. policy makers is ratification of the Law of the Sea Treaty, many leaders said, a United Nations convention that outlines the responsibilities and rights of nations on the high seas. The treaty creates guidelines for business and environmental concerns as well as marine resource management; a convention that politicians, local leaders and investors present at the conference seemed to agree unanimously on.

#### US won’t ever focus on the Arctic

\*\*Also in UQ for Canada DA

Smith 11 (Colonel Reginald R. Smith, USAF, is Professor of National Security Affairs and Senior Developmental Education Student (Strategy and Policy) at the Naval War College, “A New Partnership Paradigm or the Next "Cold War"?”, 3rd Quarter, http://www.ndu.edu/press/arctic-new-cold-war.html)

Global climate change is bringing about epochal transformation in the Arctic region, most notably through the melting of the polar ice cap. The impact of these changes, and how the global community reacts, may very well be the most important and far-reaching body of issues humanity has yet faced in this new century. A number of nations bordering the Arctic have made broad strides toward exercising their perceived sovereign rights in the region, and all except the United States have acceded to the United Nations Convention on the Law of the Sea (UNCLOS), which provides an international legal basis for these rights and claims. 1 Similarly, while most Arctic nations have been planning, preparing, and programming resources for many years in anticipation of the Arctic thaw, the United States has been slow to act on any of the substantive steps necessary for the exercise of sovereign rights or the preservation of vital national interests in the region. 2

The United States must move outside the construct of unilateral action in order to preserve its sovereign rights in the Arctic, capitalize on the opportunities available, and safeguard vital national interests in the region. In today’s budget-constrained environment and as a Nation at war with higher resource priorities in Iraq and Afghanistan than in the Arctic, it is unrealistic to believe that any significant allocation will be programmed for addressing this issue. 3 Since the United States is too far behind in actions necessary to preserve its critical interests as compared to the other Arctic countries, the Nation must take the lead to cultivate a new multilateral partnership paradigm in the region.

#### No Arctic War

Bartsch 12 (Golo, Associate at Ecologic Institute, “Arctic Security”, 7/30, http://arcticsummercollege.org/sites/default/files/Security%20Policy%20Brief\_Arctic%20Summer%20College\_July%2030%202012\_0.pdf)

As the Russian flag was planted underneath the North Pole in 2007, media predicted an uncontrolled “gold rush” or even a “new Cold War” in the region. This interpretation of military presence in the North, in combination with diminishing sea ice and territorial and resource claims of the riparian nations, created the image of imminent conflict. In fact, the probability of armed conflict in the North was not significantly higher during the last years than it was from 1990 to 2007. The nations involved, especially the Arctic Five, are affiliated with several overlapping international institutions, such as the United Nations or the Arctic Council, which provide arenas for peaceful conflict management. Furthermore, all those nations are aware that any armed escalation is counterproductive to their future interests and to exploitation of Arctic resources. In the official Northern strategies or White Papers of the Arctic Five, the commitment to peaceful cooperation and compliance with international law is a common and fundamental element. The current deployment, modernization, and reorganisation of the military in the Arctic takes place mostly to support the constabulary functions of those forces: Due to the harsh conditions of weather and terrain, it is foremost the military which has the equipment and personnel capacities to operate in the North at all. This includes not only the sovereign rights of border patrolling, coast guarding, and air policing, but also the provision of Search-and-Rescue (SAR) capabilities. Since an SAR agreement has been negotiated through the Arctic Council during the Conference of Nuuk in 2011, this task is of particular importance.

## Airpower

#### Airpower fails – doesn’t deter conflict

Clodfelter 6 (Mark, professor of military history at the National War College, “The limits of air power: the American bombing of North Vietnam”, Google Books, Page xi, AV)

Unfortunately, precision bombing may not be the answer. Despite being several technological generations ahead of the capability displayed in Vietnam, smart munitions still do not guarantee zero collateral damage. Many of the precision air attacks against insurgent leaders have produced claims by insurgents—as well as by Iraqis who do not support the insurgency—that Iraqi civilians have been killed in the raids. Whether true or not, such accusations grab headlines in the Islamic press and on Al Jazeera, providing the perception among many in the Muslim world that such attacks display a callous disregard for Muslim civilian lives. In the type of war that America now faces, those perceptions have become reality to many opposing the United States. In such conflicts, even with such advantages as Predator drones and Hellfire missiles, the long-term harm of applying lethal air power is likely to eclipse its short-term benefit. As long as negative political goals remain substantial, the limits of air power displayed in Vietnam will continue to restrict its utility in the twenty-first century.

#### Experts vote neg – no impact

McPeak 4 (Merrill A, “Hit or Miss: A Neater Way to Win”, Sept/Oct, <http://www.foreignaffairs.com/articles/60107/merrill-a-mcpeak-and-robert-a-pape/hit-or-miss?page=show>, AV)

Robert Pape ("The True Worth of Air Power," March/April 2004) seems to think that all modern war is of a kind, featuring large formations of mechanized infantry, artillery, and armor. He asserts that wars are still decided "the old-fashioned way," by pounding opposing forces into submission. He concedes that the advent of air-delivered precision-guided munitions (PGMS) has made the task easier; formerly the largely ineffective handmaiden to ground forces, air power is now a "hammer" to be used in concert with the ground forces' "anvil." Still, Pape argues, it would be a mistake to think of air power as useful on its own, particularly when it is put to the service of a "decapitation" strategy-the elimination of enemy leadership-which "has never been effective." As a consequence, tomorrow's Air Force should look much like yesterday's, with perhaps a "few F-22s (or electronically upgraded F-15s)," but mostly lots of relatively cheap "bomb trucks."

#### China favors concessions and peaceful resolution—regime instability and empirics

Asia Times 11 (Sudha Ramachandran, “China plays long game on border disputes,” Jan 27, 2011, <http://www.atimes.com/atimes/China/MA27Ad02.html>)

A Sino-Tajik border agreement that was ratified recently by Tajikistan's parliament flies in the face of images of China being a "bullying" and "belligerent" power that "will go to any length to fulfill its territorial ambitions". The agreement, which resolves a 130-year-old territorial dispute, requires Tajikistan to cede around 1,000 square kilometers of land in the Pamir Mountains to China. It means that China will receive roughly 3.5% of the 28,000 square kilometers of land it laid claim to. China's territorial concession has been hailed by Tajik Foreign Minister Hamrokhon Zarifi as a "victory for Tajik diplomacy". This is not the first time that China has made concessions to settle its territorial disputes**.** Under its border agreements with Kazakhstan and Kyrgyzstan, for instance, China received just 22% and 32% respectively of the land disputed with these countries. China's boundaries with Central Asia were originally drawn up under what China describes as "unequal treaties". It alleged that as a result of these treaties, Czarist Russia gained territory at its expense. It therefore refused to recognize these boundaries. Although the Soviet Union and China began negotiating a mutually acceptable border, a settlement remained elusive. With the breakup of the Soviet Union in 1990, the new Central Asian Republics - Tajikistan, Kazakhstan and Kyrgyzstan - inherited the disputes with China. In the 1990s, China began negotiating settlements with these countries. Border agreements with Kyrgyzstan and Kazakhstan were reached in 1996 and 1998 respectively. Border talks with Tajikistan were delayed by the civil war there. However, talks gathered momentum in the late 1990s and an agreement was reached in 2002. It was this agreement that was ratified recently. Analysts have drawn attention to the territorial concessions that China extended to resolve its many disputes. Of its 23 territorial disputes active since 1949, China offered "substantial compromises" in 17, usually agreeing "to accept less than half of the territory being disputed," M Taylor Fravel, associate professor at the Massachusetts Institute of Technology, pointed out in the article "Regime Insecurity and International Cooperation: Explaining China's Compromises in Territorial Disputes," published in the journal International Security. However, there is more to it than meets the eye. The territorial concessions that China is believed to have made are not quite as substantial as they appear to be. Srikanth Kondapalli, a China expert at the Jawaharlal Nehru University in New Delhi pointed out that China's strategy of stepping up territorial claims and then settling for less has enabled it to appear to be making a major territorial concession to reach a border resolution agreement. In several disputes, "whether China actually gave up territory or made a substantial concession is a debatable question," he told Asia Times Online. Still, in the quest for regional stability China overall "has been liberal in border dispute resolution", he said. What has prompted Beijing to seek compromise and extend concessions with regard to territorial disputes involving its land borders? Regime insecurity appears to have been an important motivating factor. According to Fravel, "China's leaders have compromised when faced with internal threats to regime security - the revolt in Tibet, the instability following the Great Leap Forward, the legitimacy crisis after the Tiananmen upheaval, and separatist violence in Xinjiang." The territorial concessions it made to Kazakhstan, Kyrgyzstan and Tajikistan in order to reach border agreements with them was prompted by a sharp surge in separatist violence in Xinjiang province in the early 1990s. The disintegration of the Soviet Union and the emergence of Kazakhstan, Kyrgyzstan and Tajikistan as independent republics stoked long-smoldering Uighur nationalism in Xinjiang and fueled Uighur aspirations for independence. This triggered apprehension in Beijing that Xinjiang would break away. Coming close on the heels of the Tiananmen uprising of 1989, which had undermined the Chinese government's legitimacy, the separatist violence in Xinjiang compounded Chinese regime insecurity, as it posed a threat to China's territorial integrity. This made it imperative for Beijing to nip Uighur unrest in the bud. China's strategy to deal with Uighur separatism has involved ruthless suppression of separatists and economic development of the Xinjiang region. However, the success of this strategy hinged on support from countries bordering Xinjiang - Kazakhstan, Kyrgyzstan and Tajikistan. Their cooperation was essential to get them to crack down on Uighur separatists taking sanctuary on their soil as well as to build robust trade ties that were needed for economic development in Xinjiang. Beijing thus traded territorial concessions for support from Kazakhstan, Kyrgyzstan and Tajikistan in its strategy to quell Uighur separatism. With the exception of its territorial disputes with India and Bhutan, China has settled all its other land-border disputes. In contrast, it has resolved none of its maritime border disputes, although the dispute in the Gulf of Tonkin with Vietnam is being discussed and those discussions are at an advanced stage of resolution. China's strategy for resolving its border disputes and the nature of its border-resolution mechanism provide useful pointers to what lies ahead. In the past, "it is when the contestant state is weak that China has moved quickly to resolve the dispute," points out Kondapalli. The way it went about handling its territorial disputes with the Soviet Union is indicative. Although China did discuss them with the Soviet Union, it was only when the USSR disintegrated that Beijing moved quickly to achieve resolution.

# Advantage CP

#### The United States Federal Government should substantially increase investment in smart microgrid technology for military installations in Alaska via a diverse portfolio tailored to individual installation circumstances, including non-nuclear renewable energies for on-site generation, increased backup generation capacity, improvements in energy efficiency and energy storage, intelligent local energy management, and accelerated implementation of the SPIDERS project.

#### Text: The United States federal government should coordinate with Russia to develop the Multinational Arctic Task Force.

#### Smart microgrids solve DOD grid vulnerability---the combination of the CP’s mechanisms resolves the problems with each individual component

SERDP 12 – the Strategic Environmental Research and Development Program, DoD’s environmental science and technology program, executed in partnership with DOE and EPA, 7/10/12, “DoD Study Finds Microgrids Offer Improved Energy Security for DoD Installations,” http://www.serdp.org/News-and-Events/News-Announcements/Program-News/DoD-study-finds-microgrids-offer-improved-energy-security-for-DoD-installations

Advanced microgrids offer a cost-effective solution to military installations' growing vulnerability to the fragile electric grid, according to a study released today by DoD’s Office of Installations and Environment. The study performed by MIT Lincoln Laboratory looked at different microgrid architectures and characteristics and compared their relative cost-effectiveness. The report provides insight into increasing energy security and reducing energy costs through the incorporation of renewable energy resources into microgrids, as well as new market opportunities for DoD in the area of demand response and ancillary services.

The study highlights the extent of ongoing microgrid work across DoD. It identified 44 installations that either had existing microgrids, planned installation of microgrids, or conducted microgrid studies or demonstrations at their facilities. The authors interviewed more than 75 people from the military Services, the Office of the Secretary of Defense, and the Department of Energy. The analysis categorized the ongoing microgrid efforts based on several key attributes including size, maturity, the inclusion of renewable resources, and the ability to operate in a grid-tied manner.

The analysis confirms the value of microgrids to DoD. The combination of on-site energy generation and storage, together with the microgrid’s ability to manage local energy supply and demand, allow installations to shed non-essential loads and maintain mission-critical loads if the electric grid is disrupted.

The report illustrates the largely untapped potential of moving to smarter, next generation microgrids that would accommodate far greater penetration of renewable energy sources, as well as tighter integration with the electrical grid. If solar resources that are increasingly being installed on DoD installations were available during islanded operation of a microgrid, they could significantly extend the islanding time. Moreover, a microgrid that could operate when tied to the grid would offer new opportunities for the DoD to generate cost savings by using backup generation assets during normal operation and generate financial revenue by using advanced ancillary services.

One important finding is that there will be no “one size fits all” solution. The location of a military installation influences the options available for energy generation sources, the options available for interaction with the local utility, the characteristics of the local electricity market, and the regulatory environment. The most effective microgrids will be those that take into account the needs of the local commercial electric grid and are configured so that they can earn value helping to meet those needs.

# Elections

#### Obama will win but it’s close

AP 10/29 “A week before Election Day, Obama has an edge in fight for 270 electoral votes needed to win,” 2012, <http://www.washingtonpost.com/politics/a-week-before-election-day-obama-has-an-edge-in-fight-for-270-electoral-votes-needed-to-win/2012/10/29/c8f7f2e2-21aa-11e2-92f8-7f9c4daf276a_story.html>

AMES, Iowa — President Barack **Obama is poised to eke out a victory in the race for the 270 electoral votes** needed to win re-election, having beaten back Republican Mitt Romney’s attempts to convert momentum from the debates into support in all-important Ohio, according to an Associated Press analysis a week before Election Day.¶ While the Democratic incumbent has the upper hand in the electoral vote hunt, Romney has pulled even, or is slightly ahead, in polling in a few pivotal states, including Florida and Virginia. The Republican challenger also appears to have the advantage in North Carolina, the most conservative of the hotly contested nine states that will determine the winner.¶ While in a tight race with Obama for the popular vote, Romney continues to have fewer state-by-state paths than Obama to reach 270. Without Ohio’s 18 electoral votes, Romney would need last-minute victories in nearly all the remaining up-for-grabs states and manage to pick off key states now leaning Obama’s way, such as Iowa or Wisconsin.¶ **To be sure, anything can happen in the coming days to influence the Nov. 6 election.**¶ The AP analysis isn’t intended to predict the outcome. Rather, it’s meant to provide a snapshot of a race that has been stubbornly close in the small number of competitive states all year. The analysis is based on public polls and internal campaign surveys as well as spending on television advertising, candidate visits, get-out-the-vote organizations and interviews with dozens of Republican and Democratic strategists in Washington and in the most contested states.¶ The analysis shows that Obama probably would win with at least 271 electoral votes from 21 states, including Ohio, Wisconsin and Iowa, and the District of Columbia. Romney seems on track for 206 from 23 states, including North Carolina. Obama won that state in 2008 and campaigned aggressively there this year. But Obama’s team acknowledges it is the most difficult state for him to win, and he’s paid less attention to it recently.

#### RECs trigger massive backlash---perceived as a backdoor carbon tax

Bill Sweet 12, Editor of IEEE Spectrum, a publication of the Institute of Electrical and Electronics Engineers, 3/2/12, “Are Renewable Energy Credits Excessively Expensive?,” http://spectrum.ieee.org/energywise/energy/renewables/are-renewable-energy-credits-excessively-expensive

The Manhattan Institute, a public policy research outfit with a free-market and somewhat libertarian orientation, has issued a report arguing that renewable energy credits (RECs) represent an excessively expensive way of addressing environmental concerns and promoting green technology. The REC is a device employed by the 29 states plus the District of Columbia and Puerto Rico that have adopted renewable portfolio standards, sometimes with special "carve-outs" for solar energy. Grid participants unable to meet mandated targets for renewable generation purchase tradeable credits from those that can, where a single REC represents one MWh of green energy delivered. Thus, the REC is a means of delivering subsidies to producers of green energy that are paid for by producers of dirty energy.¶ The REC, and even perhaps some of the purposes the REC is meant to serve, is not popular among the kinds of people who write for the Manhattan Institute. As they see it—and arguably they are right—the REC is a poorly concealed substitute for a carbon emissions credit, which in turn is a poorly concealed substitute for a carbon tax. Nevertheless, the Manhattan Institute has a record of producing serious work that is respected by people who do not necessarily share the institute's general point of view. This latest report, "The High Cost of Renewable Energy Mandates," by Robert Bryce, deserves attention as a first stab at assessing the overall costs to consumers of RECs.¶ Basically Bryce compares the costs of electricity in states that have renewable energy mandates with costs in states that do not and finds that rates have gone up much more in states that do have such mandates. "The gap is particularly striking in coal-dependent states—seven such states with RPS mandates saw their rates soar by an average of 54.2 percent between 2001 and 2010, more than twice the average increase experienced by seven other coal-dependent states without mandates," reports Bryce. Though he devotes detailed attention to certain states such as California, Oregon and Washington, he does not try to disentangle the precise mix of reasons that have produced higher rates in states with portfolio standards, and nor does he claim to.¶ Bryce notes that tightening regulation of coal generating plants and higher expenditures on power transmission also have been major factors in driving up electricity costs. Citing figures from the Edison Electric Institute, Bryce says that "member companies spent over $55 billion on transmission projects between 2001 and 2009. Another $61 billion will likely be spent on transmission projects from 2010 through 2021."¶ However superficial, the Manhattan Institute report suggests worryingly that the costs of promoting wind and especially solar energy may start catching up with policy-makers and produce a political backlash, as we have been witnessing in Europe.

#### That swings the election

Seattle Times 12"Not just the economy: Secondary issues may play role in election," 7/14, http://seattletimes.nwsource.com/html/nationworld/2018688463\_electionissues15.html

WASHINGTON — As the economy colors and polarizes voters' attitudes, the Election Day outcome for President Obama and Republican challenger Mitt Romney may be decided on the margins by narrower issues that energize small but crucial slivers of the population.¶ For three months, the economy by most measures has faltered. Yet the White House contest has remained locked in place, with the incumbent holding on to a slight national lead or in a virtual tie with his rival. Analysts from both parties have no doubt that absent a defining, unpredictable moment, the race will remain neck and neck until November.

#### Romney causes massive foreign backlash and nuclear wars globally

Bandow 12 Doug is a senior fellow at the Cato Institute. “Mitt Romney: The Foreign Policy of Know-Nothingism,” 5/15, <http://www.cato.org/publications/commentary/mitt-romney-foreign-policy-knownothingism>

Republican politicians continue to beat the war drums. All of this cycle’s GOP presidential contenders, save Rep. Ron Paul, charged President Barack Obama with weakness, indeed, almost treason. But the public isn’t convinced. The president who increased military spending, twice upped troop levels in Afghanistan, started his own war with Libya, talked tough to North Korea, loudly threatened Iran and Syria, and oversaw the hit on Osama bin Laden just doesn’t look like a wimp.¶ In fact, a recent Washington Post-ABC poll found that Americans prefer Barack Obama to Mitt Romney on international issues by 53 percent to 36 percent. Republican apparatchiks Karl Rove and Ed Gillespie nevertheless claim, “the president is strikingly vulnerable in this area,” but so far Romney is convincing only as a blowhard with a know-nothing foreign policy. Noted Jacob Heilbrunn of the National Interest, the GOP is “returning to a prescription that led to trillion-dollar wars in the Middle East that the public loathes.”¶ Romney’s overall theme is American exceptionalism and greatness, slogans that win public applause but offer no guidance for a bankrupt superpower that has squandered its international credibility. “This century must be an American century,” Romney proclaimed. “In an American century, America leads the free world and the free world leads the entire world.” He has chosen a mix of advisers, including the usual neocons and uber-hawks — Robert Kagan, Eliot Cohen, Jim Talent, Walid Phares, Kim Holmes, and Daniel Senor, for instance — that gives little reason for comfort. Their involvement suggests Romney’s general commitment to an imperial foreign policy and force structure. ¶ Romney is no fool, but he has never demonstrated much interest in international affairs. He brings to mind George W. Bush, who appeared to be largely ignorant of the nations he was invading. Romney may be temperamentally less likely to combine recklessness with hubris, but he would have just as strong an incentive to use foreign aggression to win conservative acquiescence to domestic compromise. This tactic worked well for Bush, whose spendthrift policies received surprisingly little criticism on the right from activists busy defending his war-happy foreign policy. ¶ The former Massachusetts governor has criticized President Obama for “a naked political calculation or simply sheer ineptitude” in following George W. Bush’s withdrawal timetable in Iraq and for not overriding the decision of a government whose independence Washington claims to respect. But why would any American policymaker want to keep troops in a nation that is becoming ever more authoritarian, corrupt, and sectarian? It is precisely the sort of place U.S. forces should not be tied down. ¶ In contrast, Romney has effectively taken no position on Afghanistan. At times he appears to support the Obama timetable for reducing troop levels, but he has also proclaimed that “Withdrawal of U.S. forces from Afghanistan under a Romney administration will be based on conditions on the ground as assessed by our military commanders.” Indeed, he insisted: “To defeat the insurgency in Afghanistan, the United States will need the cooperation of both the Afghan and Pakistani governments — we will only persuade Afghanistan and Pakistan to be resolute if they are convinced that the United States will itself be resolute,” and added, “We should not negotiate with the Taliban. We should defeat the Taliban.” ¶ Yet it’s the job of the president, not the military, to decide the basic policy question: why is the U.S. spending blood and treasure trying to create a Western-style nation state in Central Asia a decade after 9/11? And how long is he prepared to stay — forever? On my two trips to Afghanistan I found little support among Afghans for their own government, which is characterized by gross incompetence and corruption. Even if the Western allies succeed in creating a large local security force, will it fight for the thieves in Kabul? ¶ Pakistan is already resolute — in opposing U.S. policy on the ground. Afghans forthrightly view Islamabad as an enemy. Unfortunately, continuing the war probably is the most effective way to destabilize nuclear-armed Pakistan. What will Romney do if the U.S. military tells him that American combat forces must remain in Afghanistan for another decade or two in order to “win”? ¶ The ongoing AfPak conflict is not enough; Romney appears to desire war with Iran as well. No one wants a nuclear Iran, but Persian nuclear ambitiions began under America’s ally the Shah, and there is no reason to believe that the U.S. (and Israel) cannot deter Tehran. True, Richard Grenell, who briefly served as Romney’s foreign-policy spokesman, once made the astonishing claim that the Iranians “will surely use” nuclear weapons. Alas, he never shared his apparently secret intelligence about the leadership in Tehran’s suicidal tendencies. The Iranian government’s behavior has been rational even if brutal, and officials busy maneuvering for power and wealth do not seem eager to enter the great beyond. Washington uneasily but effectively deterred Joseph Stalin and Mao Zedong, the two most prolific mass murderers in history. Iran is no substitute for them. ¶ Romney has engaged in almost infantile ridicule of the Obama administration’s attempt to engage Tehran. Yet the U.S. had diplomatic relations with Hitler’s Germany and Stalin’s Russia. Washington came to regret not having similar contact with Mao’s China. Even the Bush administration eventually decided that ignoring Kim Jong-Il’s North Korea only encouraged it to build more nuclear weapons faster. ¶ Regarding Iran, Romney asserted, “a military option to deal with their nuclear program remains on the table.” Building up U.S. military forces “will send an unequivocal signal to Iran that the United States, acting in concert with allies, will never permit Iran to obtain nuclear weapons... Only when the ayatollahs no longer have doubts about America’s resolve will they abandon their nuclear ambitions.” Indeed, “if all else fails... then of course you take military action,” even though, American and Iranian military analysts warn, such strikes might only delay development of nuclear weapons. “Elect me as the next president,” he declared, and Iran “will not have a nuclear weapon.” ¶ Actually, if Tehran becomes convinced that an attack and attempted regime change are likely, it will have no choice but to develop nuclear weapons. How else to defend itself? The misguided war in Libya, which Romney supported, sent a clear signal to both North Korea and Iran never to trust the West. ¶ Iran’s fears likely are exacerbated by Romney’s promise to subcontract Middle East policy to Israel. The ties between the U.S. and Israel are many, but their interests often diverge. The current Israeli government wants Washington to attack Iran irrespective of the cost to America. Moreover, successive Israeli governments have decided to effectively colonize the West Bank, turning injustice into state policy and making a separate Palestinian state practically impossible. Perceived American support for this creates enormous hostility toward the U.S. across the Arab and Muslim worlds. ¶ Yet Romney promises that his first foreign trip would be to Israel “to show the world that we care about that country and that region” — as if anyone anywhere, least of all Israel’s neighbors, doesn’t realize that. He asserted that “you don’t allow an inch of space to exist between you and your friends and allies,” notably Israel. The U.S. should “let the entire world know that we will stay with them and that we will support them and defend them.” Indeed, Romney has known Israeli Prime Minister Benjamin Netanyahu for nearly four decades and has said that he would request Netanyahu’s approval for U.S. policies: “I’d get on the phone to my friend Bibi Netanyahu and say, ‘Would it help if I say this? What would you like me to do?’” Americans would be better served by a president committed to making policy in the interests of the U.S. instead. ¶ Romney’s myopic vision is just as evident when he looks elsewhere. For instance, he offered the singular judgment that Russia is “our number one geopolitical foe.” Romney complained that “across the board, it has been a thorn in our side on questions vital to America’s national security.” ¶ The Cold War ended more than two decades ago. Apparently Romney is locked in a time warp. Moscow manifestly does not threaten vital U.S. interests. Romney claimed that Vladimir “Putin dreams of ‘rebuilding the Russian empire’.” Even if Putin has such dreams, they don’t animate Russian foreign policy. No longer an ideologically aggressive power active around the world, Moscow has retreated to the status of a pre-1914 great power, concerned about border security and international respect. Russia has no interest in conflict with America and is not even much involved in most regions where the U.S. is active: Asia, the Middle East, and Latin America. ¶ Moscow has been helpful in Afghanistan, refused to provide advanced air defense weapons to Iran, supported some sanctions against Tehran, used its limited influence in North Korea to encourage nuclear disarmament, and opposes jihadist terrorism. This is curious behavior for America’s “number one geopolitical foe.” ¶ Romney’s website explains that he will “implement a strategy that will seek to discourage aggressive or expansionist behavior on the part of Russia,” but other than Georgia where is it so acting? And even if Georgia fell into a Russian trap, Tbilisi started the shooting in 2008. In any event, absent an American security guarantee, which would be madness, the U.S. cannot stop Moscow from acting to protect what it sees as vital interests in a region of historic influence. ¶ Where else is Russia threatening America? Moscow does oppose NATO expansion, which actually is foolish from a U.S. standpoint as well, adding strategic liabilities rather than military strengths. Russia strongly opposes missile defense bases in Central and Eastern Europe, but why should Washington subsidize the security of others? Moscow opposes an attack on Iran, and so should Americans. Russia backs the Assad regime in Syria, but the U.S. government once declared the same government to be “reformist.” Violent misadventures in Kosovo, Afghanistan, Iraq, and Libya demonstrate that America has little to gain and much to lose from another attempt at social engineering through war. If anything, the Putin government has done Washington a favor keeping the U.S. out of Syria. ¶ This doesn’t mean America should not confront Moscow when important differences arise. But treating Russia as an adversary risks encouraging it to act like one. Doing so especially will make Moscow more suspicious of America’s relationships with former members of the Warsaw Pact and republics of the Soviet Union. Naturally, Romney wants to “encourage democratic political and economic reform” in Russia — a fine idea in theory, but meddling in another country’s politics rarely works in practice. Just look at the Arab Spring. ¶ Not content with attempting to start a mini-Cold War, Mitt Romney dropped his nominal free-market stance to demonize Chinese currency practices. He complained about currency manipulation and forced technology transfers: “China seeks advantage through systematic exploitation of other economies.” ¶ On day one as president he promises to designate “China as the currency manipulator it is.” Moreover, he added, he would “take a holistic approach to addressing all of China’s abuses. That includes unilateral actions such as increased enforcement of U.S. trade laws, punitive measures targeting products and industries that rely on misappropriations of our intellectual property, reciprocity in government procurement, and countervailing duties against currency manipulation. It also includes multilateral actions to block technology transfers into China and to create a trading bloc open only for nations genuinely committed to free trade.” ¶ Romney’s apparent belief that Washington is “genuinely committed to free trade” is charming nonsense. The U.S. has practiced a weak dollar policy to increase exports. Washington long has subsidized American exports: the Export-Import Bank is known as “Boeing’s Bank” and U.S. agricultural export subsidies helped torpedo the Doha round of trade liberalization through the World Trade Organization. ¶ Of course, Beijing still does much to offend Washington. However, the U.S. must accommodate the rising power across the Pacific. Trying to keep China out of a new Asia-Pacific trade pact isn’t likely to work. America’s Asian allies want us to protect them — no surprise! — but are not interested in offending their nearby neighbor with a long memory. The best hope for moderating Chinese behavior is to tie it into a web of international institutions that provide substantial economic, political, and security benefits. ¶ Beijing already has good reason to be paranoid of the superpower which patrols bordering waters, engages in a policy that looks like containment, and talks of the possibility of war. Trying to isolate China economically would be taken as a direct challenge. Romney would prove Henry Kissinger’s dictum that even paranoids have enemies. ¶ Naturally, Romney also wants to “maintain appropriate military capabilities to discourage any aggressive or coercive behavior by China against its neighbors.” However, 67 years after the end of World War II, it is time for Beijing’s neighbors to arm themselves and cooperate with each other. Japan long had the second largest economy on earth. India is another rising power with reason to constrain China. South Korea has become a major power. Australia has initiated a significant military build-up. Many Southeast Asian nations are constructing submarines to help deter Chinese adventurism. Even Russia has much to fear from China, given the paucity of population in its vast eastern territory. But America’s foreign-defense dole discourages independence and self-help. The U.S. should step back as an off-shore balancer, encouraging its friends to do more and work together. It is not America’s job to risk Los Angeles for Tokyo, Seoul, or Taipei. ¶ Romney similarly insists on keeping the U.S. on the front lines against North Korea, even though all of its neighbors have far more at stake in a peaceful peninsula and are able to contain that impoverished wreck of a country. The Romney campaign proclaims: “Mitt Romney will commit to eliminating North Korea’s nuclear weapons and its nuclear-weapons infrastructure.” Alas, everything he proposes has been tried before, from tougher sanctions to tighter interdiction and pressure on China to isolate the North. What does he plan on doing when Pyongyang continues to develop nuclear weapons as it has done for the last 20 years? ¶ The American military should come home from Korea. Romney complained that the North’s nuclear capability “poses a direct threat to U.S. forces on the Korean Peninsula and elsewhere in East Asia.” Then withdraw them. Manpower-rich South Korea doesn’t need U.S. conventional support, and ground units do nothing to contain North Korea’s nuclear ambitions. Pull out American troops and eliminate North Korea’s primary threat to the U.S. Then support continuing non-proliferation efforts led by those nations with the most to fear from the North. That strategy, more than lobbying by Washington, is likely to bring China around. ¶ Romney confuses dreams with reality when criticizing President Obama over the administration’s response to the Arab Spring. “We’re facing an Arab Spring which is out of control in some respects,” he said, “because the president was not as strong as he needed to be in encouraging our friends to move toward representative forms of government.” Romney asked: “How can we try and improve the odds so what happens in Libya and what happens in Egypt and what happens in other places where the Arab Spring is in full bloom so that the developments are toward democracy, modernity and more representative forms of government? This we simply don’t know.” ¶ True, the president doesn’t know. But neither does Mitt Romney. The latter suffers from the delusion that bright Washington policymakers can remake the world. Invade another country, turn it into a Western-style democracy allied with America, and everyone will live happily every after. But George W. Bush, a member of Mitt Romney’s own party, failed miserably trying to do that in both Afghanistan and Iraq. The Arab Spring did not happen because of Washington policy but in spite of Washington policy. And Arabs demanding political freedom — which, unfortunately, is not the same as a liberal society — have not the slightest interest in what Barack Obama or Mitt Romney thinks. ¶ Yet the latter wants “convene a summit that brings together world leaders, donor organizations, and young leaders of groups that espouse” all the wonderful things that Americans do. Alas, does he really believe that such a gathering will stop, say, jihadist radicals from slaughtering Coptic Christians? Iraq’s large Christian community was destroyed even as the U.S. military occupied that country. His summit isn’t likely to be any more effective. Not everything in the world is about Washington. ¶ Which is why Romney’s demand to do something in Syria is so foolish. Until recently he wanted to work with the UN, call on the Syrian military to be nice, impose more sanctions, and “increase the possibility that the ruling minority Alawites will be able to reconcile with the majority Sunni population in a post-Assad Syria.” Snapping his fingers would be no less effective. ¶ Most recently he advocated arming the rebels. But he should be more cautious before advocating American intervention in another conflict in another land. Such efforts rarely have desirable results. Iraq was a catastrophe. Afghanistan looks to be a disaster once American troops come home. After more than a decade Bosnia and Kosovo are failures, still under allied supervision. Libya is looking bad. ¶ Even without U.S. “help,” a full-blown civil war already threatens in Syria. We only look through the glass darkly, observed the Apostle Paul. It might be best for Washington not to intervene in another Muslim land with so many others aflame. ¶ Despite his support for restoring America’s economic health, Romney wants to increase dramatically Washington’s already outsize military spending. Rather than make a case on what the U.S. needs, he has taken the typical liberal approach of setting an arbitrary number: 4 percent of GDP. It’s a dumb idea, since America already accounts for roughly half the globe’s military spending — far more if you include Washington’s wealthy allies — and spends more in real terms than at any time during the Cold War, Korean War, or Vietnam War, and real outlays have nearly doubled since 2000. By any normal measure, the U.S. possesses far more military resources than it needs to confront genuine threats. ¶ What Romney clearly wants is a military to fight multiple wars and garrison endless occupations, irrespective of cost. My Cato colleague Chris Preble figured that ¶ Romney's 4 percent gimmick would result in taxpayers spending more than twice as much on the Pentagon as in 2000 (111 percent higher, to be precise) and 45 percent more than in 1985, the height of the Reagan buildup. Over the next ten years, Romney's annual spending (in constant dollars) for the Pentagon would average 64 percent higher than annual post-Cold War budgets (1990-2012), and 42 percent more than the average during the Reagan era (1981-1989). ¶ If Mitt Romney really believes that the world today is so much more dangerous than during the Cold War, he should spell out the threat. He calls Islamic fundamentalism, the Arab Spring, the impact of failed states, the anti-American regimes of Cuba, Iran, North Korea, and Venezuela, rising China, and resurgent Russia “powerful forces.” It’s actually a pitiful list — Islamic terrorists have been weakened and don’t pose an existential threat, the Arab Spring threatens instability with little impact on America, it is easier to strike terrorists in failed states than in nominal allies like Pakistan and Saudi Arabia, one nuclear-armed submarine could vaporize all four hostile states, and Russia’s modest “resurgence” may threaten Georgia but not Europe or America. Only China deserves to be called “powerful,” but it remains a developing country surrounded by potential enemies with a military far behind that of the U.S. ¶ In fact, the greatest danger to America is the blowback that results from promiscuous intervention in conflicts not our own. Romney imagines a massive bootstrap operation: he wants a big military to engage in social engineering abroad which would require an even larger military to handle the violence and chaos that would result from his failed attempts at social engineering. Better not to start this vicious cycle. ¶ America faces international challenges but nevertheless enjoys unparalleled dominance. U.S. power is buttressed by the fact that Washington is allied with every industrialized nation except China and Russia. America shares significant interests with India, the second major emerging power; is seen as a counterweight by a gaggle of Asian states worried about Chinese expansion; remains the dominant player in Latin America; and is closely linked to most of the Middle East’s most important countries, such as Israel, Saudi Arabia, Egypt, Jordan, and Iraq. If Mitt Romney really believes that America is at greater risk today than during the Cold War, he is not qualified to be president. ¶ In this world the U.S. need not confront every threat, subsidize every ally, rebuild every failed state, and resolve every problem. Being a superpower means having many interests but few vital ones warranting war. Being a bankrupt superpower means exhibiting judgment and exercising discretion. ¶ President Barack Obama has been a disappointment, amounting in foreign policy to George W. Bush-lite. But Mitt Romney sounds even worse. His rhetoric suggests a return to the worst of the Bush administration. The 2012 election likely will be decided on economics, but foreign policy will prove to be equally important in the long-term. America can ill afford another know-nothing president.

# Budget T/Off DA

#### The DOD budget’s focused on the Asia pivot now---new tradeoffs collapse the whole thing

Todd Harrison 12, Center for Strategic and Budgetary Priorities, 8/24/2012, ANALYSIS OF THE FY 2013 DEFENSE BUDGET AND SEQUESTRATION, http://www.csbaonline.org/wp-content/uploads/2012/08/Analysis-of-the-FY-2013-Defese-Budget.pdf

The Fiscal Year (FY) 2013 defense budget currently being debated in Congress is a departure from previous budgets in several respects. It is the first budget submitted following the release of the Pentagon’s new strategic guidance, marking the beginning of a “pivot” from the wars of the past decade to the Asia-Pacific region. It is also the first budget request in more than a decade to propose a real decline in defense spending from the level currently enacted. Moreover, the prospect of sequestration hangs over the budget, threatening to cut some 10 percent of funding if Congress does not act to prevent it. Secretary of Defense Leon Panetta has argued that the budget request is a “complete package,” that “there is little room here for significant modification,” and that any further funding reductions, such as those called for by sequestration, would require the Department to fundamentally rethink its new strategy.1 Nevertheless, the FY 2013 request is unlikely to survive unscathed and the Department will likely be forced to revise its strategic guidance.

#### REC reliance doubles energy costs---plan buys electricity and then buys redundant RECs

GAO 9 – Government Accountability Office, December 2009, “Defense Infrastructure: DOD Needs to Take Actions to Address Challenges in Meeting Federal Renewable Energy Goals,” <http://www.gao.gov/new.items/d10104.pdf>

When DOD consumes the unbundled energy from a project built at a federal facility and does not retain the certificate—as is the case with one of the largest renewable energy projects on DOD land—DOD has two options: to not count the energy toward the renewable energy goals or to obtain new renewable energy certificates to replace those retained by the private developer. 49 If DOD plans to count the energy toward the goals, it would need to choose the second option, since under DOE guidance, DOD would need to consume the energy and own renewable energy certificates in order to count the energy toward the renewable energy goals. If DOD chose to purchase replacement renewable energy certificates, then it would generally pay a higher price for the energy consumed because DOD would need to purchase two products—the renewable energy and the replacement certificates. In short, while alternative financing approaches supplement DOD’s appropriated funding and cost DOD less up front, if DOD intends to count projects’ energy toward the renewable energy goals, 50 DOD generally faces additional costs to purchase replacement certificates.

#### That destroys the budget

DOD Energy Blog 10 – “Making the Numbers: From Energy Goals to Business Cases,” 9/14/10, http://dodenergy.blogspot.com/2010/09/making-numbers-from-energy-goals-to.html

At a time when America is recovering from an energy disaster on our shores, the DoD is taking bold, measurable steps toward energy conservation and efficiency as well as creating a portion of their energy needs from renewable sources. The Department of Defense is taking these audacious measures because they provide for energy security, reduce cost and improve the environment. Oh, and they have to, by law.

In the past five years, DoD, the Executive Branch and Congress have issued dozens of policies, Executive Orders, and mandates requiring the Department to reduce energy demand and produce more of their energy from renewable and alternative sources for the billions of square feet of installation real estate owned.

The Congressional Research Service’s Anthony Andrews published an excellent report (http://www.fas.org/sgp/crs/natsec/R40111.pdf) In February 2009 on the Departments policies and spending in regard to energy. In the report, there is a comprehensive review of “energy conservation legislation and Executive Orders that apply to the Department of Defense, directives and instructions to the military departments and agencies on implementing the legislation and orders, Defense spending on facility energy over the last decade, annual Defense appropriations that fund energy-conservation improvements, and Defense energy conservation investments.”.

For example, the Energy Policy Act of 2005 (EPACT 2005) required “that the federal government offset its electric energy consumption with an increasing percentage of “renewable energy” from 3% starting in 2005 to not less than 7.5% by 2013 and each fiscal year thereafter.”. The Energy Independence and Security Act of 2007 requires “a 30% energy reduction in federal buildings by 2015 relative to a 2005 baseline.”. Executive Order 13423 amplified this stating that all federal agencies would reduce the production of greenhouse gases by a “reduction of energy intensity (3% annually through the end of FY2015, and 30% by the end of FY2015, relative to each agency’s baseline energy use in FY2003).”. So, 30% reduction in energy by 2015, relative to 2003 and production of 7.5% of that energy from renewables.

Here’s where it gets fun. In the same report it states that DoD consumption in FY2007 was 218,062 billion BTUs (BBTUs). It has steadily come down from FY2003 number of 242,240 BBTUs. Based on this report I have done a couple of back of the envelop calculations. By the way, I did not graduate in the bottom hundred in my class, but I knew all of those guys by their first names, so check the math.

Averaging the reductions since FY1999, we should anticipate a reduction of about 6,300 BBTUs annual. That reduction will achieve the 30% reduction required by 2015 in EO13423. That’s only 31,500 BBTUs to go. But the question is – and I think we all know the answer – have we already picked all the low hanging fruit? To compute the renewable energy required by 2013 in EPACT 2005 let’s use that 6,300 BBTUs reduction assumption. By 2013 the total energy requirement for DOD should be 179,193 BBTUs. In 2009 DoD reported that 2.9% of its energy was derived from renewable energy and/or renewable energy credits. Given that, by 2013 DoD will have to produce 7,512 BBTUs from renewable energy. That equates to 2,200 Gigawatt-hours of production. In the past DoD has used renewable energy credits to meet RE goals. With shrinking budgets, this may not be an option. Those same budgets will probably not be able to afford the 2.2 Terawatt-hours of capacity, much less the 31,500 BBTUs of energy conservation.

#### Causes tradeoffs that wreck the budget

Jack Spencer 11, Research Fellow in Nuclear Energy in the Thomas A. Roe Institute for Economic Policy Studies at The Heritage Foundation, 6/22/11, “Capability, Not Politics, Should Drive DOD Energy Research,” http://www.heritage.org/research/reports/2011/06/capability-not-politics-should-drive-dod-energy-research

With multiple wars ongoing, traditional threats looming, and new ones emerging, the U.S. Armed Forces are already under tremendous stress. So introducing a new assignment that needlessly bleeds scarce resources away from core missions to advance a political agenda is untenable. Yet this is exactly what the Obama Administration is doing by ordering the military to lead a green revolution.

The White House is pushing the idea that the alternative energy industry would get the kick start it needs if the military will just commit to using them. But the assumptions behind this argument are flawed, and the strategy would increase demands on the military budget while harming national security. Congress should put a stop to it right away.

#### Budget tradeoffs undermine the U.S. pivot to Asia---nuclear war

Colby 11 – Elbridge Colby, research analyst at the Center for Naval Analyses, served as policy advisor to the Secretary of Defense’s Representative to the New START talks, expert advisor to the Congressional Strategic Posture Commission, August 10, 2011, “Why the U.S. Needs its Liberal Empire,” The Diplomat, online: http://the-diplomat.com/2011/08/10/why-us-needs-its-liberal-empire/2/?print=yes

But the pendulum shouldn’t be allowed to swing too far toward an incautious retrenchment. For our problem hasn’t been overseas commitments and interventions as such, but the kinds of interventions. The US alliance and partnership structure, what the late William Odom called the United States’ ‘liberal empire’ that includes a substantial military presence and a willingness to use it in the defence of US and allied interests, remains a **vital component** of US security and **global stability and prosperity**. This system of voluntary and consensual cooperation under **US leadership**, particularly in the security realm, constitutes a formidable bloc defending the liberal international order.¶ But, in part due to poor decision-making in Washington, this system is under strain, particularly in East Asia, where the security situation has become tenser even as the region continues to become the centre of the global economy.¶ A nuclear North Korea’s violent behaviour threatens South Korea and Japan, as well as US forces on the peninsula; Pyongyang’s development of a road mobile Intercontinental Ballistic Missile, moreover, brings into sight the day when North Korea could threaten the United States itself **with nuclear attack**, a prospect that will further imperil stability in the region.¶ More broadly, the rise of China – and especially its rapid and opaque military build-up – combined with its increasing assertiveness in regional disputes is troubling to the United States and its allies and partners across the region. Particularly relevant to the US military presence in the western Pacific is the development of Beijing’s anti-access and area denial capabilities, including the DF-21D anti-ship ballistic missile, more capable anti-ship cruise missiles, attack submarines, attack aircraft, smart mines, torpedoes, and other assets.¶ While Beijing remains a constructive contributor on a range of matters, these capabilities will give China the growing power to deny the United States the ability to operate effectively in the western Pacific, and thus the potential to undermine the US-guaranteed security substructure that has defined littoral East Asia since World War II. Even if China says today it won’t exploit this growing capability, who can tell what tomorrow or the next day will bring?¶ Naturally, US efforts to build up forces in the western Pacific in response to future Chinese force improvements must be coupled with efforts to engage Beijing as a responsible stakeholder; indeed, a strengthened but appropriately restrained military posture will enable rather than detract from such engagement. ¶ In short, the United States **must increase its involvement in East Asia** rather than decrease it. Simply maintaining the military balance in the western Pacific will, however, involve substantial investments to improve US capabilities. It will also require augmented contributions to the common defence by US allies that have long enjoyed low defence budgets under the US security umbrella. This won’t be cheap, for these requirements can’t be met simply by incremental additions to the existing posture, but will have to include advances in air, naval, space, cyber, and other expensive high-tech capabilities.¶ Yet such efforts are vital, for East Asia represents the economic future, and its strategic developments will **determine which country** or countries **set the international rules** that shape that economic future. Conversely, US interventions **in the Middle East** and, to a lesser degree, in south-eastern Europe have been driven by far more ambitious and aspirational conceptions of the national interest, encompassing the proposition that failing or illiberally governed peripheral states can contribute to an instability that nurtures terrorism and impedes economic growth. Regardless of whether this proposition is true, the effort is rightly seen by the new political tide not to be worth the benefits gained. Moreover, the United States can scale (and has scaled) back nation-building plans in Iraq, Afghanistan, and the Balkans without undermining its vital interests in ensuring the free flow of oil and in preventing terrorism.¶ The lesson to be drawn from recent years is not, then, that the United States should scale back or shun overseas commitments as such, but rather that we must be more discriminating in making and acting upon them. A total US unwillingness to intervene would pull the rug out from under the US-led structure, leaving the international system prey to disorder at the least, and at worst to chaos or dominance by others who could not be counted on to look out for US interests.¶ We need to focus on **making the right interventions**, not forswearing them completely. In practice, this means a **more substantial focus on East Asia** and the serious security challenges there, and **less emphasis on the Middle East**. ¶ This isn’t to say that the United States should be unwilling to intervene in the Middle East. Rather, it is to say that our interventions there should be more tightly connected to concrete objectives such as protecting the free flow of oil from the region, preventing terrorist attacks against the United States and its allies, and forestalling or, if necessary, containing nuclear proliferation as opposed to the more idealistic aspirations to transform the region’s societies. ¶ These more concrete objectives can be better met by the more judicious and economical use of our military power. More broadly, however, it **means a shift in US emphasis away from the** greater **Middle East toward the Asia-Pacific** region, which **dwarfs** the former in **economic and military potential** and in the dynamism of its societies. The Asia-Pacific region, with its hard-charging economies and growing presence on the global stage, is where the future of the international security and economic system will be set, and it is there that Washington needs to focus its attention, especially in light of rising regional security challenges. ¶ In light of US budgetary pressures, including the hundreds of billions in ‘security’ related money to be cut as part of the debt ceiling deal, it’s doubly important that US security dollars be allocated to the **most pressing tasks** – shoring up the US position in the most important region of the world, the Asia-Pacific. It will also require restraint in expenditure on those challenges and **regions** that don’t touch so directly on the future of US security and prosperity. ¶ As Americans debate the proper US global role in the wake of the 2008 financial crisis and Iraq and Afghanistan, they would do well to direct their ire not at overseas commitments and intervention as such, but rather at those not tied to core US interests and the sustainment and adaptation of the ‘liberal empire’ that we have constructed and maintained since World War II.¶ Defenders of our important overseas links and activities should clearly distinguish their cause from the hyperactive and barely restrained approach represented by those who, unsatisfied with seeing the United States tied down in three Middle Eastern countries, seek intervention in yet more, such as Syria. Indeed, those who **refuse to scale back US interventions in the Middle East** or call for still more are **directly contributing to the weakening of US commitments in East Asia**, given strategic developments in the region and a **sharply constrained budgetary environment in Washington**.¶ We can no longer afford, either strategically or financially, to **squander our power** in unnecessary and ill-advised interventions and nation-building efforts. The ability and will to intervene is too important to be so wasted.

# T Substantial

## 1NC

#### A substantial increase in assistance requires doubling

James P. Grant 79 is Executive Director of UNICEF "Perspectives on Development Aid: World War II to Today and Beyond" The ANNALS of the American Academy of Political and Social Science 1979 442: 1 ann.sagepub.com/content/442/1/1.full.pdf

Second, development strategies must be revised so as to be more effective in addressing basic human needs. This accords with the conclusions of the World Employment Conference held in Geneva in June 1976. This revision of development strategies-which in many countries would mean land reform and radically changed patterns of education and health services to enable low cost delivery systems to reach the great mass of the people-requires politically difficult and risky reforms, reforms which would be far easier to make if the high income countries significantly **expanded their external assistance to the low income countries** for these purposes. Third, a **substantial increase** is required in the quantity of resources, transferred, including $12-$20 billion each year over present levels, to address mass poverty in the low income countries. This would **require** more than a **doubling of the present flow of aid resources** to the poor majorities in the low income countries.

## 2NC

#### The ballot matters --- voting neg is key to establish a predictable standard allowing for fair debate, instead of letting the topic devolve into arbitrary case-by-case determinations of meaning

Shalesh Gandhi 9, Information Comissioner, Indian Central Information Comissioner, Decision No. CIC/SG/C/2009/001193/5009, <http://www.rtiindia.org/forum/> 32307-ic-sg-lays-down-exact-figures-guidelines-define-substantial-etc.html

Any organisation, not covered by Sections 2 (h) (a), (b), (c) or (d), will still fall under the ambit of public authority if it meets the requirements given under Section 2(h)(i) or (ii). In both these clauses a determination has to be made as to whether a body or organisation is substantially funded or not. As the Act does not define ‘substantial’, it is necessary to first define this word. As the concept of public authority is relatively new in the Indian legal scenario, the Commission is not able to find a useful precedent in law to define substantial funding. Cases decided by Courts with regard to Article 12 of the Constitution of India are not applicable in the present case as the Parliament has deliberately used the words ‘public authority’ and not ‘state’ in the Right to Information Act. I am of the view that substantial funding can be decided through two methods- first to identify what percentage of the organisation’s income is given by the government which is ‘of considerable importance’ to its revenue; and second, to identify an amount of money which in the Indian scenario would, in itself, be ‘of considerable importance’. Both methods if applied on a case-to-case basis are vulnerable to a charge of arbitrariness. Therefore, I take this opportunity to lay a specific guideline to decide whether a body is substantially financed by the government or not. I am aware that such a guideline is also open to a charge of arbitrariness but it is better to have a pre-decided transparent standard which everyone can follow rather than a post-facto case-to-case determination. I recognize that for this particular matter the guideline that I lay down would be a post-facto determination but the precedential value of this decision could help remove the arbitrariness to a large extent.

#### Must be quantitative, not qualitative

Justice BRENNAN 81 delivered the opinion of the Court, 451 U.S. 933, 101 S.Ct. 2008. , Charles W. STEADMAN, Petitioner, v. SECURITIES AND EXCHANGE COMMISSION http://ftp.resource.org/courts.gov/c/US/450/450.US.91.79-1266.html#fn16

The search for congressional intent begins with the language of the statute. Andrus v. Allard, 444 U.S. 51, 56, 100 S.Ct. 318, 322, 62 L.Ed.2d 210 (1979); Reiter v. Sonotone Corp., 442 U.S. 330, 337, 99 S.Ct. 2326, 2330, 60 L.Ed.2d 931 (1979); 62 Cases of Jam v. United States, 340 U.S. 593, 596, 71 S.Ct. 515, 518, 95 L.Ed. 566 (1951). Section 7(c), 5 U.S.C. § 556(d), states in pertinent part: "Except as otherwise provided by statute, the proponent of a rule or order has the burden of proof. Any oral or documentary evidence may be received, but the agency as a matter of policy shall provide for the exclusion of irrelevant, immaterial, or unduly repetitious evidence. A sanction may not be imposed or rule or order issued except on consideration of the whole record or those parts thereof cited by a party and supported by and in accordance with the reliable, probative, and substantial evidence." (Emphasis added.) The language of the statute itself implies the enactment of a standard of proof. By allowing sanctions to be imposed only when they are "in accordance with . . . substantial evidence," Congress implied that a sanction must rest on a minimum quantity of evidence. **The word "substantial" denotes quantity**.16 The phrase "in accordance with . . . substantial evidence" thus requires that a decision be based on a **certain quantity** of evidence. Petitioner's contention that the phrase "reliable, probative, and substantial evidence" sets merely a standard of **quality** of evidence is, therefore, unpersuasive.17

# REC CP

## 1NC

#### TEXT: The United States Department of Defense should offer procurement contracts funded through up-front appropriations for small modular nuclear reactors to be owned by the Department of Defense, and located on military bases in the United States that lack power purchase agreements for electricity generated by utility-owned small modular nuclear reactors.

#### The United States Federal Government should remove limitations on per-project allocations of operation and maintenance funding for bases with DOD-owned small modular reactors.

#### Solves the case---DOD procurement contracts accelerate SMR commercialization---spills over to widespread adoption

CSPO 10 – Consortium for Science, Policy and Outcomes, Arizona State University, June 2010, “FOUR POLICY PRINCIPLES FOR ENERGY INNOVATION & CLIMATE CHANGE: A SYNTHESIS,” http://www.catf.us/resources/publications/files/Synthesis.pdf

Government purchase of new technologies is a powerful way to accelerate innovation through increased demand (Principle 3a). We explore how this principle can be applied by considering how the DoD could purchase new nuclear reactor designs to meet electric power needs for DoD bases and operations.

Small modular nuclear power reactors (SMRs), which generate less than 300 MW of power (as compared to more typical reactors built in the 1000 MW range) are often listed as a potentially transformative energy technology. While typical traditional large-scale nuclear power plants can cost five to eight billion dollars, smaller nuclear reactors could be developed at smaller scale, thus not presenting a “bet the company” financial risk. SMRs could potentially be mass manufactured as standardized modules and then delivered to sites, which could significantly reduce costs per unit of installed capacity as compared to today’s large scale conventional reactor designs.   
It is likely that some advanced reactors designs – including molten salt reactors and reactors utilizing thorium fuels – could be developed as SMRs. Each of these designs offers some combination of inherently safe operation, very little nuclear proliferation risk, relatively small nuclear waste management needs, very abundant domestic fuel resources, and high power densities – all of which are desirable attributes for significant expansion of nuclear energy.

Currently, several corporations have been developing small nuclear reactors. Table 2 lists several of these companies and their reactor power capacities, as well as an indication of the other types of reactor innovations that are being incorporated into the designs. Some of these technologies depend on the well-established light water reactor, while others use higher energy neutrons, coolants capable of higher temperature operation, and other innovative approaches. Some of these companies, such as NuScale, intend to be able to connect as many as 24 different nuclear modules together to form one larger nuclear power plant. In addition to the different power ranges described in Table 2, these reactors vary greatly in size, some being only 3 to 6 feet on each side, while the NuScale reactor is 60 feet long and 14 feet in diameter. Further, many of these reactors produce significant amounts of hightemperature heat, which can be harnessed for process heating, gas turbine generators, and other operations.

One major obstacle is to rapid commercialization and development are prolonged multi-year licensing times with the Nuclear Regulatory Commission. Currently, the NRC will not consider a reactor for licensing unless there is a power utility already prepared to purchase the device. Recent Senate legislation introduced by Senator Jeff Bingaman (D-NM) has pushed for DOE support in bringing down reactor costs and in helping to license and certify two reactor designs with the NRC. Some additional opportunities to facilitate the NRC licensing process for innovative small modular reactors would be to fund NRC to conduct participatory research to get ahead of potential license applications (this might require ~$100million/year) and potentially revise the current requirement that licensing fees cover nearly all NRC licensing review costs.

One option for accelerating SMR development and commercialization, would be for DOD to establish SMR procurement specifications (to include cost) and agree to purchase a sufficient amount of SMR’s to underwrite private sector SMR development. Of note here may be that DARPA recently (3/30/10) issued a “Request for Information (RFI) on Deployable Reactor Technologies for Generating Power and Logistic Fuels” 2 that specifies may features that would be highly desirable in an advanced commercial SMR. While other specifications including coproduction of mobility fuel are different than those of a commercial SMR power reactor, it is likely that a core reactor design meeting the DARPA inquiry specifications would be adaptable to commercial applications. While nuclear reactors purchased and used by DOD are potentially exempt from many NRC licensing requirements 3 , any reactor design resulting from a DOD procurement contract would need to proceed through NRC licensing before it could be commercially offered. Successful use of procured SMR’s for DOD purposes could provide the knowledge and operational experience needed to aid NRC licensing and it might be possible for the SMR contractor to begin licensing at some point in the SMR development process4.

Potential purchase of small modular nuclear reactors would be a powerful but proven way in which government procurement of new energy technologies could encourage innovation. Public procurement of other renewable energy technologies could be similarly important.

#### Net-benefit mechanics:

#### DOD reducing reliance on REC purchases now

FT 12 – Federal Times, 7/22/12, “Agencies buying energy credits to meet mandates,” http://www.federaltimes.com/article/20120722/FACILITIES02/307220006/Agencies-buying-energy-credits-meet-mandates

But some agencies are trying to buck the trend and reduce their reliance on RECs.

The Interior Department said it plans to build more renewable energy projects and purchase fewer RECs.

For example, the National Park Service plans to install solar panels on top of its visitor station at Assateague Island, in Berlin, Md.

“We anticipate a reduced reliance on RECs to meet mandated renewable energy goals,” spokesman Drew Malcomb said.

The Defense Department intends to buy fewer RECs and instead invest money in on-site projects.

“It takes money to buy RECs, and you are not creating any new capacity. You are just spending money to meet a goal,” Dorothy Robyn, deputy undersecretary of Defense for installations and environment, said in an interview.

Robyn is confident DoD will get there without paying for credits. “We are in a position to generate renewable energy on our own installations,” she said.

Pentagon spokeswoman Melinda Morgan said the department does not track how much it spends on credits each year.

In 2011, DoD decided to scale back its purchase of RECs, despite having a goal to obtain 5 percent of its facilities’ energy needs from renewable energy sources. It achieved only 3.1 percent after reducing its purchase of credits from 440,000 to 248,000 megawatt hours, Robyn said.

#### Energy obtained through alternative financing doesn’t count towards mandates that force DOD to increase reliance on renewables---causes renewable energy credit purchases to make up the difference

GAO 9 – Government Accountability Office, December 2009, “Defense Infrastructure: DOD Needs to Take Actions to Address Challenges in Meeting Federal Renewable Energy Goals,” <http://www.gao.gov/new.items/d10104.pdf>

As we explained earlier in this report, DOD expects to rely increasingly on alternative financing approaches to meet the renewable energy goals. For DOD to effectively implement these approaches, the department will require energy management staff who have the relevant expertise for implementing the approaches. However, because we found that the services and their installations’ staff often lack expertise in developing alternative financing approaches, DOD may by limited in its ability both to use these approaches to develop renewable energy projects and to do so in a manner that adequately protects the government’s financial resources committed to these approaches.

According to DOD officials, in most cases, private developers are generally interested in partnering with DOD in order to sell the projects’ unbundled energy or associated renewable energy certificates to a third party. These officials explained that the generally accepted business model for these types of approaches includes a renewable energy resource on or near DOD land that is harnessed by a project financed, built, and operated by thirdparty developer that then sells the unbundled energy to DOD or other customers and typically retains ownership of the project’s renewable energy certificates.48

However, under such approaches, DOD often would neither consume the renewable energy nor retain the renewable energy certificates. When DOD does not consume the renewable energy, a developer would provide some other form of compensation for the use of the renewable resource on DOD land. For example, in the largest renewable energy project on DOD land, DOD does not consume the energy but instead receives financial compensation based on the sale of the project’s energy. If DOD neither consumes the renewable energy nor retains the renewable energy certificates, a serious challenge may be posed to DOD’s ability to meet the renewable energy goals. That occurs because, according to DOE’s guidance on implementation of the 2005 Act and the 2007 Executive Order—guidance designed to preserve the integrity of the renewable energy certificate market—for an agency to count a project’s renewable energy toward these goals, the project must meet two requirements. First, the renewable energy must be produced and used on-site at a federal agency or the renewable energy must be produced by a project owned by a federal agency but installed on private property. Second, the agency must retain or replace the renewable energy certificates associated with the energy produced. In addition, as we discussed earlier, unlike DOE, DOD has not issued guidance that provides a clear explanation of its methodology for calculating progress toward the fiscal year 2025 goal under the 2007 Defense Authorization Act, including DOD’s definition of “consumption” and the treatment of renewable energy certificates in that context.

#### DOD ownership of the project solves the case and avoids REC purchases

Loni Silva 12, J.D., The George Washington University Law School, Summer 2012, “THE PROBLEMS WITH USING RENEWABLE ENERGY CERTIFICATES TO MEET FEDERAL RENEWABLE ENERGY REQUIREMENTS,” Public Contract Law Journal, Vol. 41, No. 4

The best way to address the problems with FEMP’s REC interpretation is to render the use of RECs to meet EPAct 2005 and EO 13423 obsolete. RECs should only be used as a short-term, stop-gap solution to meet the renewable energy requirements. 139 The long-term goal should be for agencies to consume bundled renewable energy produced on or near agency installations.

Consuming renewable energy would eliminate the current problems with FEMP’s REC interpretation. First, consuming renewable energy would eliminate the problem with best value because, unlike RECs, renewable energy responds to and fulﬁlls agencies’ actual energy needs. 140 For Joe, the energy manager, the ability to use renewable energy means that he would not need to spend part of his energy budget on a commodity that does not address his actual energy needs. 141

Second, consuming renewable energy would eliminate the problems with transparency and accountability. 142 Because the policies plainly require agencies to consume renewable energy, complying by consuming renewable energy, rather than purchasing RECs, would be transparent. 143 Moreover, because this method of compliance is transparent and allows a clear view of what the Government is doing in response to the requirements of the policies, it allows the Government to be held accountable. 144

Third, consuming renewable energy produced at on-site facilities would further the policies’ goal of developing on-site renewable energy facilities. 145 Having facilities on or near agency property would provide power to the installation in case the grid is attacked or fails. 146 It would also promote the energy independence, security, and sustainability of both the Federal Government and the nation as a whole by developing new renewable energy facilities. 147

Developing new renewable energy facilities on or near agency installations would allow agencies to consume renewable energy, rather than RECs. 148 Of course, not all locations are able to support a renewable energy facility. 149 However, because the policy requirements are agency-wide rather than installation speciﬁc, agencies can build facilities at installations with available land, increasing renewably energy production to compensate for installations where the lack of available land or other factors makes facility development impossible. 150

## 2NC

### AT Perm do CP

#### Appropriated funds and alternative financing are distinct

Jeffrey Marqusee 12, Executive Director of the Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP) at the Department of Defense, March 2012, “Military Installations and Energy Technology Innovation,” in Energy Innovation at the Department of Defense: Assessing the Opportunities, http://bipartisanpolicy.org/sites/default/files/Energy%20Innovation%20at%20DoD.pdf

Decisions on implementing these technologies will be made in a distributed sense and involve tens of thousands of individual decision makers if they are ever to reach large-scale deployment. These are the energy technologies that DoD installations will be buying, either directly through appropriated funds or in partnership with third-party financing through mechanisms such as Energy Saving Performance Contracts (ESPCs) or Power Purchase Agreements (PPAs). In the DOE taxonomy shown above, these distributed installation energy technologies cover the demand space on building and industrial efficiency, portions of the supply space for clean electricity when restricted to distributed generation scale, and a critical portion in the middle where microgrids and their relationship to energy storage and electric vehicles reside.

#### The CP is an explicit alternative to the CP

GAO 9 – Government Accountability Office, December 2009, “Defense Infrastructure: DOD Needs to Take Actions to Address Challenges in Meeting Federal Renewable Energy Goals,” <http://www.gao.gov/new.items/d10104.pdf>

DOD has funded renewable energy projects on its installations using both up-front appropriated dollars and various types of agreements with private sector entities. 23 DOD primarily uses funding from two kinds of appropriation accounts to develop renewable energy projects. First, DOD uses a military construction account to pay for the Energy Conservation Investment Program—funding that Congress provides directly to OSD and that OSD, in turn, allocates to each of the services. Program funds are specifically directed toward energy conservation and renewable energy projects. Second, the services’ annual operation and maintenance appropriations provide funding that many installations have used to support small renewable energy projects.24

DOD has also joined with private sector entities, entering into various types of arrangements to develop renewable energy projects. Because these different arrangements with the private sector provide DOD with an alternative to using only up-front appropriations to fund renewable energy projects, we refer to these arrangements as alternative financing approaches. For the purposes of this report, we define an alternative financing approach as any funding arrangement other than projects in which total project costs are funded only through full up-front appropriations. DOD has entered into several different types of these approaches that have resulted in renewable energy projects.

### AT Perm do Both

#### ) it says “obtain electricity”---the word “obtain” is defined as receiving the transfer of property or securing the actual performance of a service

NRS 9 – Nevada Revised Statutes, 2009, CHAPTER 205 - CRIMES AGAINST PROPERTY, http://www.leg.state.nv.us/NRS/NRS-205.html

NRS 205.0827 “Obtain” defined. “Obtain” means to bring about or receive the transfer of any interest in property, or to secure performance of a service. (Added to NRS by 1989, 1204)

#### They’ll say that the plan and the CP could both supply base electricity---wrong---base power demand is relatively low, and the reactors funded by the plan would be sufficient to power entire bases and then some---no room for the CP’s reactors

Andres and Breetz 11 - Richard B Andres, Professor of National Security Strategy at the National War College and a Senior Fellow and Energy and Environmental Security and Policy Chair in the Center for Strategic Research, Institute for National Strategic Studies at the National Defense University; and Hanna L Breetz, doctoral candidate in the Department of Political Science at The Massachusetts Institute of Technology, February 2011, "Small Nuclear Reactors for Military Installations: Capabilities, Costs, and Technological Implications", www.ndu.edu/press/lib/pdf/StrForum/SF-262.pdf

Unlike other alternative sources of energy, small reactors have the potential to solve DOD’s vulnerability to grid outages. Most bases have relatively light power demands when compared to civilian towns or cities. Small reactors could **easily support bases’ power demands** separate from the civilian grid during crises. In some cases, the reactors could be designed to produce enough power not only to supply the base, but also to provide critical services in surrounding towns during long-term outages.

### AT Loper

#### ESPCs are for efficiency---they’re simply not the type of alternative financing that DOD uses to procure electricity which means it’s irrelevant to our CP

Ryan Fitzpatrick 11, Senior Policy Advisor for Clean Energy at Third Way; Josh Freed, Vice President for Clean Energy at Third Way; and Mieke Eoyang, Director for National Security at Third Way, June 2011, “Fighting for Innovation: How DoD Can Advance Clean Energy Technology... And Why It Has To,” http://content.thirdway.org/publications/414/Third\_Way\_Idea\_Brief\_-\_Fighting\_for\_Innovation.pdf

One advanced financing tool available to DoD is the energy savings performance contract (ESPC). These agreements allow DoD to contract a private firm to make upgrades to a building or other facility that result in energy savings, reducing overall energy costs without appropriated funds. The firm finances the cost, maintenance and operation of these upgrades and recovers a profit over the life of the contract. While mobile applications consume 75% of the Department’s energy, 34 DoD is only authorized to enter an ESPC for energy improvements done at stationary sites. As such, Congress should allow DoD to conduct pilot programs in which ESPCs are used to enhance mobile components like aircraft and vehicle engines. This could accelerate the needed replacement or updating of aging equipment and a significant reduction of energy with no upfront cost.

### Solvency

#### Definitely solves the case

Jim DiPeso 10, is policy director for Republicans for Environmental Protection, Winter 2010, “Can DOD Lead the Way to a Better Energy Future?,” Environmental Quality Management, Vol. 20, No. 2

Using DOD’s Purchasing Power

Finally, one sure way to create a market for innovative energy technologies is to buy them in large quantities. The Defense Department already works with energy-savings performance contractors who install efficiency measures and are paid through a share of the resulting savings on energy bills. For example, the Air Force is financing more than $5 million in energy-savings projects at Holloman Air Force Base in New Mexico, including lighting upgrades and installation of building occupancy sensors. The Air Force estimates that the investment will return annual energy-bill savings exceeding $1 million per year.23

As the military makes further progress on alternative fuels and renewables, the purchasing power of DOD is expected to have an even larger impact. A recent article in the New York Times noted, “While setting national energy policy requires Congressional debates, military leaders can simply order the adoption of renewable energy. And the military has the buying power to create products and markets. That, in turn, may make renewable energy more practical and affordable for everyday uses, experts say.”24

#### Zero solvency deficit to procurement vs. alternative financing

GAO 3 – Government Accountability Office, August 2003, “Budget Issues: Alternative Approaches to Finance Federal Capital,” http://www.gao.gov/assets/240/239391.pdf

Capital projects are fully funded when Congress provides budget authority for the full cost of an asset up front. Such up-front funding provides recognition for commitments that are embodied in budgetary decisions and maintains government-wide fiscal control. However, providing budget authority for the large up-front costs of capital assets creates challenges in an era of resource constraints. Agencies have been authorized to use an array of approaches to obtain capital assets without full, up-front budget authority. Our work identified 10 alternative financing approaches used by one or more of 13 agencies. These approaches, which are described in our letter, are:

• incremental funding,

• operating leases,

• retained fees,

• real property swaps,

• sale-leasebacks,

• lease-leasebacks,

• public private partnerships,

• outleases,

• share-in-savings contracts, and

• debt issuance.

From an agency’s perspective, meeting capital needs through alternative financing approaches (i.e., not full funding) can be very attractive because the agency can obtain the capital asset without first having to secure sufficient appropriations to cover the full cost of the asset. Depending on the financing approach, an agency may spread the asset cost over a number of years or may never even incur a monetary cost that is recognized in the budget. From a governmentwide perspective, however, as we have reported in the past, the costs associated with these financing approaches may be greater than with full, up-front budget authority. Regardless of the financing approach—up-front budget authority or any of the other approaches— agencies would receive the same program benefits.

#### No land tradeoff impact

King et al 11 Marcus, Associate Director of Research, Associate Research Professor of International Affairs, Elliot School of International Affairs, The George Washington University, et al., March 2011, “Feasibility of Nuclear Power on U.S. Military Installations,” http://www.cna.org/sites/default/files/research/Nuclear%20Power%20on%20Military%20Installations%20D0023932%20A5.pdf

It should be noted that 1963 legislation granted Southern California Edison Corporation an easement of 90 acres from the Camp Pendleton Marine Corps Base to construct the San Onofre Nuclear Generating Station. Our discussions have indicated that the two facilities have co-existed without significant impact on training and readiness.

#### Yes expertise

Robitaille 12 George E, Department of Army Civilian, March 21, "Small Modular Reactors: The Army’s Secure Source of Energy?", [www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA561802](http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA561802)

Section 332 of the FY2010 National Defense Authorization Act (NDAA), “Extension and Expansion of Reporting Requirements Regarding Department of Defense Energy Efficiency Programs,” requires the Secretary of Defense to evaluate the cost and feasibility of a policy that would require new power generation projects established on installations to be able to provide power for military operations in the event of a commercial grid outage.28 A potential solution to meet this national security requirement, as well as the critical needs of nearby towns, is for DoD to evaluate SMRs as a possible source for safe and secure electricity. Military facilities depend on reliable sources of energy to operate, train, and support national security missions. The power demand for most military facilities is not very high, and could easily be met by a SMR. Table 1 provides the itemized description of the annual energy requirements in megawatt of electricity (MWe) required for the three hundred seventy four DoD installations.29 DoD History with SMRs The concept of small reactors for electrical power generation is not new. In fact, the DoD built and operated small reactors for applications on land and at sea. The U.S. Army operated eight nuclear power plants from 1954 to 1977. Six out of the eight reactors built by the Army produced operationally useful power for an extended period, including the first nuclear reactor to be connected and provide electricity to the commercial grid. 30 The Army program that built and operated compact nuclear reactors was ended after 1966, not because of any safety issues, but strictly as a result of funding cuts in military long range research and development programs. In essence, it was determined that the program costs could only be justified if there was a unique DoD specific requirement. At the time there were none.31 Although it has been many years since these Army reactors were operational, the independent source of energy they provided at the time is exactly what is needed again to serve as a secure source of energy today. Many of the nuclear power plant designs used by the Army were based on United States Naval reactors. Although the Army stopped developing SMRs, the Navy as well as the private sector has continued to research, develop, and implement improved designs to improve the safety and efficiency of these alternative energy sources. The U.S. Navy nuclear program developed twenty seven different power plant systems and almost all of them have been based on a light water reactor design.32 This design focus can be attributed to the inherent safety and the ability of this design to handle the pitch and roll climate expected on a ship at sea. To date, the U. S Navy operated five hundred twenty six reactor cores in two hundred nineteen nuclear powered ships, accumulated the equivalent of over six thousand two hundred reactor years of operation and safely steamed one hundred forty nine million miles. The U.S. Navy has never experienced a reactor accident.33 All of the modern Navy reactors are design to use fuel that is enriched to ninety three percent Uranium 235 (U235) versus the approximate three percent U235 used in commercial light water reactors. The use of highly enriched U235 in Navy vessels has two primary benefits, long core lives and small reactor cores.34 The power generation capability for naval reactors ranges from two hundred MWe (megawatts of electricity) for submarines to five hundred MWe for an aircraft carrier. A Naval reactor can expect to operate for at least ten years before refueling and the core has a fifty year operational life for a carrier or thirty to forty years for a submarine.35 As an example, the world’s first nuclear carrier, the USS Enterprise, which is still operating, celebrated fifty years of operations in 2011.36 The Navy nuclear program has set a precedent for safely harnessing the energy associated with the nuclear fission reaction. In addition, the Navy collaborates with the private sector to build their reactors and then uses government trained personnel to serve as operators. Implementing the use of SMRs as a secure source of energy for our critical military facilities will leverage this knowledge and experience.

### CP Link Differential

#### Producing energy from reactors that DOD owns allows the electricity to count toward the mandates---and obviously solves the case too

Loni Silva 12, J.D., The George Washington University Law School, Summer 2012, “THE PROBLEMS WITH USING RENEWABLE ENERGY CERTIFICATES TO MEET FEDERAL RENEWABLE ENERGY REQUIREMENTS,” Public Contract Law Journal, Vol. 41, No. 4

C. FEMP’s REC Retention Requirement Frustrates the Policies’ Goal of Developing On-site Renewable Energy Facilities

Fed up with using part of his energy budget to buy RECs, Joe reasons that if Base Alpha had its own renewable energy facility on-site, it could provide some of the power the base needs while simultaneously meeting the policy requirements. Joe approaches a third-party developer about the possibility of developing a renewable energy facility on the site, which would decrease the cost of the facility for Base Alpha. The third-party developer says that to make the facility proﬁtable and worthwhile, the developer would need to sell the RECs from the facility to the local utility. However, if this occurs, the energy produced on-site would no longer qualify as renewable and Joe would not be able to count the energy produced by the facility toward the EPAct 2005 and EO 13423 requirements.

Both EPAct 2005 and EO 13423 emphasize the goal of developing on-site sources. 110 EO 13423 requires that, to the extent feasible, each agency should implement “renewable energy generation projects on agency property for agency use.” 111 EPAct 2005, section 203, encourages on-site development of renewable energy sources by providing a bonus for renewable electricity produced on-site at a federal facility, on federal lands, or on Indian lands. 112

There are beneﬁts to building renewable energy facilities on-site. First, producing energy on-site insulates agencies from fuel price ﬂuctuation. 113 When an agency buys energy from a power supply company, the cost of a kilowatt hour (kWh) varies. For example, one Coast Guard presentation on energy procurement noted that the cost of a kWh ranged from $0.77 for winter off-peak power to $1.54 for summer on-peak power. 114 On-site facilities help an agency to avoid the ups and downs of the energy market by providing energy that the agency does not have to buy. 115

Second, producing renewable energy on-site also insulates agencies from REC price ﬂuctuations. 116 Because RECs are commodities, their prices can ﬂuctuate signiﬁcantly. 117 Prices can differ by region and by source of energy. For example, one report indicated that in 2009, companies paid anywhere from $1 per REC up to $650. 118 Prices also ﬂuctuate by year. For example, “[i]n ﬁscal year 2007, DoD relied on [RECs] for almost 90 percent of the renewable energy it purchased” and was subsequently unable to meet the requirements in 2008 “because the price of [RECs] increased [almost 185%] . . . from ﬁscal year 2007 to ﬁscal year 2008.” 119 Recently REC prices on the national, voluntary market were 0.1 cent/kWh, but it is “[d]ifﬁcult to predict future REC prices due to [the] uncertain policy landscape.” 120

Third, producing renewable energy on-site increases the energy independence and security of the Federal Government. On-site renewable energy facilities ensure that the Federal Government has access to power even if the national power grid is attacked or fails. 121 Producing on-site provides a diversity of facilities from which to draw power, decreasing dependence on vulnerable centralized transmission. 122

# Accountability DA

## 1NC

#### DOD REC purchases destroy agency accountability and transparency

Loni Silva 12, J.D., The George Washington University Law School, Summer 2012, “THE PROBLEMS WITH USING RENEWABLE ENERGY CERTIFICATES TO MEET FEDERAL RENEWABLE ENERGY REQUIREMENTS,” Public Contract Law Journal, Vol. 41, No. 4

The second problem with RECs is that using them to meet EPAct 2005 and EO 13423 requirements implicates transparency and accountability. 101 EPAct 2005 and EO 13423 require agencies to consume renewable energy and neither policy indicates that purchasing RECs qualiﬁes as consuming renewable energy. 102 Rather, the FEMP guidance introduces the concept of allowing RECs to meet the policy requirements: “For purposes of the EPAct 2005 and EO 13423 Requirements, purchases of RECs are treated the same as renewable energy purchases.” 103

FEMP’s interpretation allowing RECs to satisfy the policy requirements violates the spirit of transparency because it provides an obscure way for agencies to meet the requirements. Transparency requires that “government business is conducted in an . . . open manner.” 104 If the policies themselves stated that their renewable energy requirements could be met with RECs, there would be no transparency concerns because the methods of compliance would be apparent on the face of the policies. 105 Instead, the policies only describe compliance through use of renewable energy—they never mention RECs. 106 Yet agencies can comply by using RECs because FEMP’s REC interpretation subsequently allows RECs to be treated as renewable energy. 107 The FEMP guidance allows a method of compliance one would not expect from the face of the statute, and this implicates signiﬁcant transparency concerns. This lack of transparency means that accountability is also sacriﬁced. 108 A taxpayer cannot know from the face of the statute that agencies can use RECs.109 A taxpayer is therefore less likely to hold the Government accountable.

#### Causes foreign policy catastrophes

Norman J. Ornstein 6, Resident Scholar at the American Enterprise Institute; and Thomas E. Mann, the W. Averell Harriman Chair and Senior Fellow in Governance Studies at the Brookings Institution, November/December 2006, “When Congress Checks Out,” Foreign Affairs

The making of sound U.S. foreign policy depends on a vigorous, deliberative, and often combative process that involves both the executive and the legislative branches. The country's Founding Fathers gave each branch both exclusive and overlapping powers in the realm of foreign policy, according to each one's comparative advantage -- inviting them, as the constitutional scholar Edwin Corwin has put it, "to struggle for the privilege of directing American foreign policy."

One of Congress' key roles is oversight: making sure that the laws it writes are faithfully executed and vetting the military and diplomatic activities of the executive. Congressional oversight is meant to keep mistakes from happening or from spiraling out of control; it helps draw out lessons from catastrophes in order to prevent them, or others like them, from recurring. Good oversight cuts waste, punishes fraud or scandal, and keeps policymakers on their toes. The task is not easy. Examining a department or agency, its personnel, and its implementation policies is time-consuming. Investigating possible scandals can easily lapse into a partisan exercise that ignores broad policy issues for the sake of cheap publicity.

# RECs DA

## 1NC

#### REC reliance sends a signal of greenwashing

Auden Schendler 7, Vice President of sustainability at Aspen Skiing Company, October 2007, “When Being Green Backfires,” Harvard Business Review, Vol. 85, Issue 10

The danger in buying RECs is that the mainstream press has begun to challenge claims about their environmental value. Articles have appeared in publications including BusinessWeek and the Financial Times pointing out that most RECs don't actually offset emissions, and the skepticism is spreading across the Internet. Indeed, most RECs don't result in the creation of clean electricity, which would have been generated anyway, whether or not an REC was printed. As consumers become increasingly savvy about evaluating companies' environmental claims, businesses that tout REC purchases may expose themselves to charges of greenwashing.¶ A report released in 2006 by an environmental organization called Clean Air--Cool Planet was among the first to rigorously examine the environmental impact of RECs. The report found that while most RECs don't lead to carbon-emissions reductions, a minority do, by directly helping to finance, say, the construction of a new wind farm. Companies that buy RECs and want to avoid charges of greenwashing should seek out these higher-quality and more costly certificates, whose purchase directly and demonstrably helps reduce carbon emissions.¶ RECs, supporters argue, create a market mechanism that spurs the development of new wind, solar, and other green-electricity plants. As demand for RECs grows, their prices will rise, encouraging developers to build more renewable power facilities that can generate income through increasingly profitable sales of the certificates. Unfortunately, because there has been such a surplus of cheap RECs--and no easy way to distinguish between high- and low-quality offerings--the market mechanism has remained stalled for the most part. If companies, mindful of their reputations, reject inferior RECs and begin demanding quality ones, that could jump-start the production of renewable electricity and actually reduce carbon emissions. Corporate scrutiny and activism might even foster the development of a badly needed tool that could clean up the entire REC industry in one masterstroke: a third-party gold standard for REC quality.

#### Perception of greenwashing destroys the credibility of DOD leadership on clean energy---credible strategy’s key to global spillover of sustainable tech

Laura Horton 11, J.D., Golden Gate University School of Law, Spring 2011, “COMMENT: FUTURE FORCE SUSTAINABILITY: DEPARTMENT OF DEFENSE AND ENERGY EFFICIENCY IN A CHANGING CLIMATE,” Golden Gate University Environmental Law Journal, 4 Golden Gate U. Envtl. L.J. 303, p. lexis

As the world’s largest consumer of energy, the military has a long way to go if it intends to achieve energy efficiency goals set by the government and the DOD itself. However, not everyone is convinced that the military will follow through, considering its past environmental record. 153 This skepticism is valid in light of the growing impact climate change has had on the planet and the extent to which the military has contributed to GHG emissions. 154 In addition, mistrust of the DOD’s environmental record is warranted, since environmental damage from military activities still exists all over the United States 155

The suspect attitude toward military greening is akin to an attitude held by many concerning corporate “environmentalism” in the form of “greenwashing.” 156 The military is claiming to go “green,” and is indeed making strides in energy efficiency, while simultaneously increasing oil use by 1.5% annually through 2017. 157 Also, efficiency programs are limited to base installations and are not applied to tactical fleets, where much of the DOD’s fuel consumption occurs. 158 Furthermore, little is said in any of the aforementioned reports about the many exemptions the DOD sought from numerous environmental laws over the past eight years. 159 The military is accustomed to approaching environmental protection on its own terms and is giving mixed signals about how important energy efficiency will be in the near future. Consequently, there is a question as to how self-imposed standards such as voluntary compliance with federal energy efficiency standards, from which the DOD is otherwise exempt, will play out. 160 One example of the uncertainty of these programs can be found in a recent article in ClimateWire. 161 According to the article, the aforementioned spray foam insulation program has now been halted in the absence of advocacy for such programs. 162 The difficulty of relocating the foam tents and high disposal costs have led to the demise of spray foam use, and supporters are calling for a mandate to move forward with the project. 163 It is unclear whether the DOD will resume the program at all. The need for advocacy is especially important for the public to understand, because of the potential for new energy technology to transform the civilian marketplace as military technology finds its way into the public domain. 164

The military has begun to take the lead in energy efficiency, drive the civilian sector toward sustainable energy use, and push for “policy change to help make the necessary cultural shifts in how its people think about energy use and the decisions they make in all settings.” 165 The more seriously the military takes energy efficiency, the faster sustainable technology will reach the public. For that reason, progress on these efforts should be monitored and documented for the public to review. A history of military brush-offs of the importance of environmental protection does not lend itself to a campaign of global stewardship. In order to win the confidence of the public, the military must demonstrate a willingness to follow through with the programs it has set in place to lead alternative-energy development in the United States and the world.

#### U.S. leadership on the broader green tech transition solves extinction

Klarevas 9 –Louis Klarevas, Professor for Center for Global Affairs @ New York University, 12/15, “Securing American Primacy While Tackling Climate Change: Toward a National Strategy of Greengemony,” http://www.huffingtonpost.com/louis-klarevas/securing-american-primacy\_b\_393223.html

As national leaders from around the world are gathering in Copenhagen, Denmark, to attend the United Nations Climate Change Conference, the time is ripe to re-assess America's current energy policies - but within the larger framework of how a new approach on the environment will stave off global warming and shore up American primacy. By not addressing climate change more aggressively and creatively, the United States is squandering an opportunity to secure its **global primacy** for the next few generations to come. To do this, though, the U.S. must rely on innovation to help the world escape the coming environmental meltdown. Developing the key technologies that will save the planet from global warming will allow the U.S. to outmaneuver potential great power rivals seeking to replace it as the international system's hegemon. But the greening of American strategy must occur soon. The U.S., however, seems to be stuck in time, unable to move beyond oil-centric geo-politics in any meaningful way. Often, the gridlock is portrayed as a partisan difference, with Republicans resisting action and Democrats pleading for action. This, though, is an unfair characterization as there are numerous proactive Republicans and quite a few reticent Democrats. The real divide is instead one between realists and liberals. Students of realpolitik, which still heavily guides American foreign policy, largely discount environmental issues as they are not seen as advancing national interests in a way that generates relative power advantages vis-à-vis the other major powers in the system: Russia, China, Japan, India, and the European Union. ¶ Liberals, on the other hand, have recognized that global warming might very well become the greatest challenge ever faced by (hu)mankind. As such, their thinking often eschews narrowly defined national interests for the greater global good. This, though, ruffles elected officials whose sworn obligation is, above all, to protect and promote American national interests. What both sides need to understand is that by becoming a lean, mean, green fighting machine, the U.S. can actually bring together liberals and realists to advance a collective interest which benefits every nation, while at the same time, securing America's global primacy well into the future. To do so, the U.S. must re-invent itself as not just your traditional hegemon, but as history's first ever green hegemon. Hegemons are countries that dominate the international system - bailing out other countries in times of global crisis, establishing and maintaining the most important international institutions, and covering the costs that result from free-riding and cheating global obligations. Since 1945, that role has been the purview of the United States. Immediately after World War II, Europe and Asia laid in ruin, the global economy required resuscitation, the countries of the free world needed security guarantees, and the entire system longed for a multilateral forum where global concerns could be addressed. The U.S., emerging the least scathed by the systemic crisis of fascism's rise, stepped up to the challenge and established the postwar (and current) liberal order. But don't let the world "liberal" fool you. While many nations benefited from America's new-found hegemony, the U.S. was driven largely by "realist" selfish national interests. The liberal order first and foremost benefited the U.S. With the U.S. becoming bogged down in places like Afghanistan and Iraq, running a record national debt, and failing to shore up the dollar, the future of American hegemony now seems to be facing a serious contest: potential rivals - acting like sharks smelling blood in the water - wish to challenge the U.S. on a variety of fronts. This has led numerous commentators to forecast the U.S.'s imminent fall from grace. Not all hope is lost however. With the impending systemic crisis of global warming on the horizon, the U.S. again finds itself in a position to address a transnational problem in a way that will benefit both the international community collectively and the U.S. selfishly. The current problem is two-fold. First, the competition for oil is fueling animosities between the major powers. The geopolitics of oil has already emboldened Russia in its 'near abroad' and China in far-off places like Africa and Latin America. As oil is a limited natural resource, a nasty zero-sum contest could be looming on the horizon for the U.S. and its major power rivals - a contest which threatens American primacy and global stability. Second, converting fossil fuels like oil to run national economies is producing irreversible harm in the form of carbon dioxide emissions. So long as the global economy remains oil-dependent, greenhouse gases will continue to rise. Experts are predicting as much as a 60% increase in carbon dioxide emissions in the next twenty-five years. That likely means more devastating water shortages, droughts, forest fires, floods, and storms. In other words, if global competition for access to energy resources does not undermine international security, global warming will. And in either case, oil will be a culprit for the instability. Oil arguably has been the most precious energy resource of the last half-century. But "black gold" is so 20th century. The key resource for this century will be green gold - clean, environmentally-friendly energy like wind, solar, and hydrogen power. Climate change leaves no alternative. And the sooner we realize this, the better off we will be. What Washington must do in order to avoid the traps of petropolitics is to convert the U.S. into the world's first-ever green hegemon. For starters, the federal government must drastically increase investment in energy and environmental research and development (E&E R&D). This will require a serious sacrifice, committing upwards of $40 billion annually to E&E R&D - a far cry from the few billion dollars currently being spent. By promoting a new national project, the U.S. could develop new technologies that will assure it does not drown in a pool of oil. Some solutions are already well known, such as raising fuel standards for automobiles; improving public transportation networks; and expanding nuclear and wind power sources. Others, however, have not progressed much beyond the drawing board: batteries that can store massive amounts of solar (and possibly even wind) power; efficient and cost-effective photovoltaic cells, crop-fuels, and hydrogen-based fuels; and even fusion. Such innovations will not only provide alternatives to oil, they will also give the U.S. an edge in the global competition for hegemony. If the U.S. is able to produce technologies that allow modern, globalized societies to escape the oil trap, those nations will eventually have no choice but to adopt such technologies. And this will give the U.S. a tremendous economic boom, while simultaneously providing it with means of leverage that can be employed to keep potential foes in check. The bottom-line is that the U.S. needs to become green energy dominant as opposed to black energy independent.

## 1NR

### AT: Link Non-U

#### We have broad uniqueness---the overwhelming majority of renewable projects are funded by up-front appropriations now

GAO 12 – Government Accountability Office, 4/4/12, “IMPROVED GUIDANCE AND INFORMATION SHARING NEEDED FOR DOD PROJECT-LEVEL OFFICIALS,” RPT-NUMBER: GAO-12-401, p. lexis

The military services have varied in their use of up-front appropriations and alternative-financing approaches for renewable energy projects on military installations. Based on our analysis of DOD`s data on renewable energy projects, of the nearly 600 projects that were in design, under construction, or currently operating in fiscal year 2011, the military services funded about 85 percent of the projects with up-front appropriations. Table 3 shows the number of renewable energy projects the military services identified as being in design, under construction, or currently operating in fiscal year 2011 and the financing approaches used for the projects.

### Link U

#### DOE SMR grants haven’t been appropriated by Congress yet and DOD is distinct

Jeffrey Tomich 12, energy and environment reporter for the St. Louis Post-Dispatch, 4/25/12, “Small nuclear reactors generate hype, questions about cost,” http://www.stltoday.com/business/local/small-nuclear-reactors-generate-hype-questions-about-cost/article\_39757dba-8e5c-11e1-9883-001a4bcf6878.html#ixzz1tTlcQ1Jt

The Obama administration, which is pushing for development of low-carbon energy technologies, sees potential, too. And the president wants the United States to take the lead in developing the industry.

Last month, Obama proposed $452 million to help speed up development of small modular reactors. The funding availability would come on top of $8 billion in loan guarantees for the Vogtle twin-reactor nuclear project in Georgia.

The federal funding, which has yet to be appropriated by Congress, would support engineering, design certification and licensing of up to two plant designs that have the potential to be licensed and in commercial operation in a decade.

### Uniqueness---2NC

#### It’s unique---DOD’s committed to showing leadership on sustainability by using renewables on installations---plan reverses that

DOD 11 – Department of Defense, 7/11/11, “Department of Defense Strategic Sustainability Performance Plan,” http://www.acq.osd.mil/ie/download/green\_energy/dod\_sustainability/DoD%20SSPP%20Public\_2011.pdf

Relating specifically to the fixed installations under the purview of this Plan, a final challenge is grid vulnerability. DoD’s reliance on the commercial grid to deliver electricity to more than 500 major installations places the continuity of critical missions at risk. In general, installations lack the ability to manage their demand for and supply of electrical power, making them potentially vulnerable to intermittent or prolonged power disruption caused by natural disasters, attacks, or sheer overload of the grid. With the increasing reliance of U.S. combat forces on “reach back” support from installations in the United States, power failures at those installations could adversely affect power projection and homeland defense capability. This means that an energy threat to bases in the United States can be a threat to operations abroad. The Department is committed to renewable energy not only because it is dedicated to showing leadership in sustainability, but because it improves resilience and thus mission readiness. Military installations are generally well situated to support solar, wind, geothermal and other forms of renewable energy, as long as the type of energy facility, its siting, and its physical and operational characteristics are carefully evaluated and mitigated as needed for any mission or readiness impacts.

### Link---2NC

#### REC reliance destroys the credibility of purchasers’ renewable efforts---it’s perceived as a delusional band-aid that delays the energy transition

Daniel Press 9, professor and chair of the Environmental Studies Department at the University of California, Santa Cruz, April 2009, “Renewable energy certificates are a feel-good scam,” <http://energybrokernetwork.com/press_ltr.pdf>

To understand why, consider the economics of renewable-energy production. Wind farms in California and Texas sell electricity on the wholesale market, with a significant boost from federal production tax credits for renewable energy. But prices for renewableenergy certificates, as negotiated by brokers and power producers, are very low — 10 percent of the difference between the cost of producing nonrenewable and renewable energy, and far too little to actually spur production.

By harnessing the power of the word “renewable” for spin and gimmickry, certificate brokers have persuaded hundreds of colleges to buy the “environmental attributes” of wind, landfill gas and solar energy — but not the electricity itself. “Environmental attributes” is the sort of mumbo-jumbo that’s hard to explain in news releases and on Web sites, so thousands of certificate buyers simply say that 100 percent of their power is green.

Unfortunately, this has become a big business. According to the National Renewable Energy Lab of the U.S. Department of Energy, some 13,000 customers bought 10.5 billion certificates in 2007. Nobody knows exactly what these cost, but the lab’s best estimates range from $100 million to $500 million.

Federal agencies are in on the act, too. The EPA hands out annual awards for the most green power purchased through REC suppliers, and it encourages competition between universities and other organizations vying to be the greenest in their class. It would be great if the purchase of certificates made up the difference between conventional and renewable power, but at best this is a token subsidy for renewable energy. Most sales don’t do much beyond paying the salaries — of people selling certificates.

Consumers and producers have embraced market-based solutions, but scams like this threaten to discredit the market.

At UC-Santa Cruz, student leaders see how they’ve been duped and are taking steps to cancel their contracts. By next year, I expect them to spend money on real power, not marketing gimmicks. Like my students, the country needs to make the right energy investments, which will reap savings and reduce emissions for years to come. Cheap certificates are a delusional Band-Aid that will further delay the energy transformation we so desperately need.

### Warming Impact---2NC

#### Inflating REC demand causes a flood of shitty fake RECs---collapses the credibility of the voluntary carbon market---locks in warming

Alice Kenny 10, prize-winning science writer and a regular contributor to the Ecosystem Marketplace, 2010, “Voluntary Carbon Offsets: Boon or Boondoggle?,” <http://greenopolis.com/media/headlines/voluntary-carbon-offsets-boon-or-boondoggle>

But with battling experts, evolving scientific knowledge and no Better Business Bureau to police this new green field, what guarantees that the carbon offsets being sold effectively protect the environment?

The bad news, says Derek Broekhoff, a senior associate at the World Resources Institute, is that "the vast majority of providers have a long way to go before they are up to speed and maintaining consistent levels of quality."

"I would definitely say it's a buyer beware market," he concludes.

Now, with real money at stake, consumers, suppliers, scientists and investors have begun assessing the voluntary carbon market's ability to ensure consumer confidence, the key to the market's future.

A Dog's Dinner

The voluntary carbon market surged 1000 percent over the past two years, according to recent reports. It racked in sales of over $100 million last year and is set to double again by next year. Yet no single standard exists to appraise the quality of marketed carbon offsets, forcing consumers to rely on advertisements for much of their education. In the short term, this could prove a bonanza for businesses marketing carbon offsets. But in the long term, it could compromise this consumer-driven market's credibility, threatening inroads made in the battle against global warming.

Now, says Jeff Reamer, assistant vice president for renewable energy at GE Energy Financial Services, "just about anyone can hang out a shingle and say I'm selling a ton of carbon."

Confronting this lapse, United Kingdom regulators announced last month that all future voluntary carbon credits undergo the same scrutiny as carbon credits sold on the mandatory European carbon market for factories and large institutions. The move has come under heavy criticism from many in the industry who argue that such regulation will strangle the innovative side of the market that keeps transaction costs low and contributes to sustainable development. Whether they are for or against the government approach, however, nearly everyone agrees with UK Environment Secretary David Miliband: "People need to be sure that the way they offset is actually making a difference."

Since the United States has neither a federally mandated carbon market nor established standards, it could not follow Britain's lead even if it wanted to do so. Instead, a potpourri of unofficial groups proposed their own standards. The CDM Gold Standard recently released what it calls a voluntary market standard and the Climate Group, the International Emissions Trading Association and the World Economic Forum Global Greenhouse Register are in the midst of developing their Voluntary Carbon Standard.

The Center for Resource Solutions offers it's Green-E logo for vetted renewable energy certificates and is creating similar criteria to certify carbon reductions (for more on these standards see Comparing Apples & Oranges: In Search of a Standard for the Voluntary Carbon Market and The Missing Link? Green-e Attempts to Join the Voluntary Markets for RECs and Carbon Offsets in U.S.). Meanwhile GE, in its new carbon-offset partnership with AES, plans to create its own standard to ensure that what is sold as a ton of sequestered CO2 actually represents a ton of CO2, says Reamer.

Many applaud these various yardsticks, saying they provide effective ways to guarantee that carbon reductions are delivered and not double sold. But with so many standards out there and none universally accepted, "it's a bit of a dogs' dinner right now," says Sean Clark, offset portfolio manager for Climate Trust, a nonprofit carbon-offset provider based in Oregon. "It's a mess."

Messier still is where this leaves consumers. With no universal standards, even bottom-line information on how many voluntary offsets have been sold remains unknown. In a recently published report commissioned by Clean Air, Cool Planet, Mark Trexler, president of the energy and environmental policy consulting firm Trexler Climate + Energy Services, determined that nearly 75 percent of the 30 retail voluntary carbon-offset providers existing at the time of his study provided insufficient information on how their offsets combat global warming, limiting consumers' ability to make educated purchasing decisions.

"We were surprised by how little information consumers had on the web about what they were buying," Trexler said. "We were also surprised by how many providers provided no indication that they understood the tricky issues of offset quality."

Shooting the Dog

Remember the National Lampoon magazine cover that threatens, "If you don't buy this magazine we'll shoot this dog"? The voluntary carbon market also suffers from this type of "counterfactual hypothetical," says Steve Calderia, a scientist at Carnegie Institution's department of global ecology. Just as the dog would not be shot whether or not the magazine was purchased, a rainforest sequestering carbon may or may not have been preserved regardless of funding received from the voluntary carbon market. Factories updated in exchange for permission to spew carbon from another site may have found it financially profitable to modernize regardless of newly available carbon finance. By trading against hypothetical situations, Calderia says, "a great deal of room is left for gaming the system."

Folks in the carbon-trading business refer to this thorny issue as additionality. And when assessing the quality of the carbon market, additionality, most agree, presents the biggest hurdle.

Experts from various perspectives bring up additionality even when discussing the most basic issue surrounding offsets: promoting renewable energy verses relying on direct emissions reduction activities. Jasmine Hyman, marketing director of the Gold Standard, says that promoting renewable energy projects through the voluntary offset market provides a key way to shift from a fossil-fuel-based economy. Meanwhile, Hyman adds, carbon offset projects that prevent carbon emissions rather than create energy offer less permanence and therefore provide less quality.

Conversely, Trexler argues that intermingling renewable energy certificates in the carbon-offset market could add green energy to the grid without achieving cuts in CO2 emissions. Because of this perspective, he gave low marks in his study to voluntary-carbon-offset providers that included sizeable percentages of renewable energy certificates in their portfolios.

Without clear standards, consumers must come up with their own criteria and may wind up paying for phantom reductions. Flabby oversight that forfeits consumer safeguards comes with high stakes. "We know that selling offsets as absolution would be a disaster for the environment. We need to raise awareness so that consumers know that pressing the buy button is only the first step," says Tom Arnold, chief environmental officer of the carbon-offset seller Terrapass.

Baby Steps

The voluntary carbon market is not only just a first step; it is also a baby step. Voluntary offsets can lead the market but cannot solve the problem of global warming. Most scientists agree that seven billion tons of carbon emissions must be prevented from entering the atmosphere over the next 50 years to make a dent in global warming. The voluntary market can only deliver about 1/10,000 of these emissions cuts, Trexler estimates. Its strength, then, lies in its potential to spur massive government efforts to limit carbon emissions from large-scale emitters. If consumers lose confidence in their ability to fight global warming, they may be less likely to agitate for these reductions.

Critics claim that some fraudulent greenhouse gas reduction projects sell more carbon credits than they actually reduce, exploiting the lack of an international standard and leaving consumers mistakenly believing that they offset their carbon emissions. Others say that most carbon-reduction providers do their best to provide high-quality carbon offsets. But without accepted standards to vet these offsets and verify that they are sold only once, the voluntary market's reputation can rise or fall on anecdotes.

#### Extinction --- answers their defense

Flournoy 12 – Citing Feng Hsu, PhdD NASA Scientist @ the Goddard Space Flight Center, Don FLournoy, PhD and MA from UT, former Dean of the University College @ Ohio University, former Associate Dean at SUNY and Case Institute of Technology, Former Manager for Unviersity/Industry Experiments for the NASA ACTS Satellite, currently Professor of Telecommunications @ Scripps College of Communications, Ohio University, “Solar Power Satellites,” January 2012, Springer Briefs in Space Development, p. 10-11

In the Online Journal of Space Communication , Dr. Feng Hsu, a  NASA scientist at Goddard Space Flight Center, a research center in the forefront of science of space and Earth, writes, “The evidence of global warming is alarming,” noting the potential for a catastrophic planetary climate change is real and troubling (Hsu 2010 ) . Hsu and his NASA colleagues were engaged in monitoring and analyzing climate changes on a global scale, through which they received first-hand scientific information and data relating to global warming issues, including the dynamics of polar ice cap melting. After discussing this research with colleagues who were world experts on the subject, he wrote: I now have no doubt global temperatures are rising, and that global warming is a serious problem confronting all of humanity. No matter whether these trends are due to human interference or to the cosmic cycling of our solar system, there are two basic facts that are crystal clear: (a) there is overwhelming scientific evidence showing positive correlations between the level of CO2 concentrations in Earth’s atmosphere with respect to the historical fluctuations of global temperature changes; and (b) the overwhelming majority of the world’s scientific community is in agreement about the risks of a potential catastrophic global climate change. That is, if we humans continue to ignore this problem and do nothing, if we continue dumping huge quantities of greenhouse gases into Earth’s biosphere, humanity will be at dire risk (Hsu 2010 ) . As a technology risk assessment expert, Hsu says he can show with some confidence that the planet will face more risk doing nothing to curb its fossil-based energy addictions than it will in making a fundamental shift in its energy supply. “This,” he writes, “is because the risks of a catastrophic anthropogenic climate change can be potentially the extinction of human species, a risk that is simply too high for us to take any chances” (Hsu 2010 )

### Forward Bases Impact---2NC

#### DOD cred on renewable energy drives private-sector development of clean tech by sending key market signals---that’s Hornton.

#### That private perception is key to drive innovation in microgrid tech for DOD

Peter Asmus 11, Senior Analyst at Pike Research, September 2011, “Military Microgrids: Aggregation Platforms to Secure Mission-Critical Loads and Achieve Net Zero Energy, Renewable Energy, and Demand Response Goals,” http://www.pikeresearch.com/wordpress/wp-content/uploads/2011/09/MMG-11-Executive-Summary.pdf

Note that because past forecasts were focused on planned (instead of operating) capacity, the figures in this report represent an increase over previous Pike Research estimates. This is a result of significant new market activity and the entry of new, larger, and well-capitalized companies with new projects in the pipeline. In addition, significant new data on the size of microgrids have been discovered, thus increasing the capacity figure estimates from previous forecasts.

The greatest uncertainty impacting these forecasts is related to efforts to balance the federal budget in the coming years. In response to this funding uncertainty, a growing number of military operations are exploring demand response and “virtual power plant” models that generate near-term revenue, thereby setting the stage for microgrids in the near future.

#### That’s key to renewable power for forward bases

Peter Asmus 11, Senior Analyst at Pike Research, September 2011, “Military Microgrids: Aggregation Platforms to Secure Mission-Critical Loads and Achieve Net Zero Energy, Renewable Energy, and Demand Response Goals,” http://www.pikeresearch.com/wordpress/wp-content/uploads/2011/09/MMG-11-Executive-Summary.pdf

The business case for microgrids at stationary military bases is one thing, but an even better business case can be made for forward operating base (FOB) microgrids since there is no legacy grid, utilities do not represent barriers to these deployments. Also known as tactical or mobile microgrids, these typically temporary camps and operations centers can greatly reduce casualties during combat. In most ways, the mobile microgrids mirror their stationary base counterparts. However, mobile microgrids must be portable; therefore, designs must be extremely modular at the most micro levels. (Indeed, Skybuilt Power offers a micro-solar microgrid in a suitcase for military applications.) A few of these mobile microgrids are already being deployed in Afghanistan, where there has been a particularly urgent need for immediate deployment.

Much smaller in scale than U.S. stationary microgrids, mobile microgrids can be deployed in a day. The transient nature of these systems makes them extremely difficult to forecast. Definitional issues also play a role; many mobile power systems may or may not qualify as true “microgrids,” as there is large grey area distinguishing solar PV or small wind/diesel hybrids from a bona fide microgrid. Total capacity in the average scenario is estimated at a mere 20 MW by 2017. However, these systems will multiply quickly and significantly, especially if the DOD engages in additional missions in the highly volatile Middle East. FOBs on islands not engaged in direct combat also represent promising near-term markets. The forecasting of this segment is remarkably problematic, nevertheless, given the unpredictability of both political forces and terrorist attacks.

In the end, there will be some crossover between the two different military markets (stationary base and mobile microgrids). This is especially true in the still emerging area of control systems, where vendors large and small are still exploring synergies, collaborations, and product validations.

#### Credible commitment to low-carbon base power is key to avoid base kickouts globally---destroys freedom of action and obviously turns heg

Christine Parthmore 10, Fellow at the Center for a New American Security; and Dr. John Nagl, President of the Center for a New American Security, September 2010, “Fueling the Future Force Preparing the Department of Defense for a Post-Petroleum Era,” http://www.cnas.org/files/documents/publications/CNAS\_Fueling%20the%20Future%20Force\_NaglParthemore.pdf

Signs indicate that federal and state governments will continue to push for greater adoption of domestic and/or lower-carbon energy technologies. As a result, DOD will face a changing legal, regulatory and political environment in the coming decades. Congress has consistently passed legislation since 2005 to support investments and set federal requirements supporting energy efficiency and renewable energy production. The Obama administration strongly supports this approach as well. Obama issued an October 2009 Executive Order committing federal agencies to calculate and reduce their greenhouse gas emissions, which spurred energy-focused DOD officials to begin complying with this requirement. Likewise, 27 states have instituted renewable energy portfolio standards, and nine others have renewable or alternative energy goals or requirements.18 Legal and regulatory changes can also constrain energy choices. For instance, the U.S. Supreme Court ruled in 2007 that greenhouse gas emissions constitute a pollutant and therefore can be regulated at the federal level, and the Obama administration has signaled its intent to move forward with such regulation unless the Congress mandates emissions reductions through legislation.

While the U.S. government sets domestic regulations and laws, and can exempt combat-related activities, it does not exercise the same control internationally. Indeed, there is growing concern that foreign countries may not always exempt military activities within their territory from environmental standards. For example, the Canadian government recently decided to upgrade one of its vessels that was not equipped to meet the environmental standards of several European countries, for fear that the vessel could be denied port access.19 The Department of Defense must consider emerging international trends in regulating emissions and adopting less carbon-intensive energy sources as it considers how to guarantee its freedom of access to foreign ports and territories.

#### The plan can’t solve this---DOD won’t allow SMRs on FOBs unless they’re thorium---that won’t happen

Spencer Ackerman 11, Editor, Danger Room at Wired, 2/18/11, “Latest Pentagon Brainstorm: Nuke-Powered War Bases,” http://www.wired.com/dangerroom/2011/02/nuke-bases/

Buried within Darpa’s 2012 budget request under the innocuous name of “Small Rugged Reactor Technologies” is a $10 million proposal to fuel wartime Forward Operating Bases with nuclear power. It springs from an admirable impulse: to reduce the need for troops or contractors to truck down roads littered with bombs to get power onto the base. It’s time, Darpa figures, for a “self-sufficient” FOB.

Only one problem. “The only known technology that has potential to address the power needs of the envisioned self-sufficient FOB,” the pitch reads, “is a nuclear-fuel reactor.” Now, bases could mitigate their energy consumption, like the solar-powered Marine company in Helmand Province, but that’s not enough of a game-changer for Darpa. Being self-sufficient is the goal; and that requires going nuclear; and that requires … other things.

To fit on a FOB, which can be anywhere from Bagram Air Field’s eight square miles to dusty collections of wooden shacks and concertina wire, the reactor would have to be “well below the scale of the smallest reactors that are being developed for domestic energy production,” Darpa acknowledges.

That’s not impossible, says Christine Parthemore, an energy expert at the Center for a New American Security. The Japanese and the South Africans have been working on miniature nuclear power plants for the better part of a decade; Bill Gates has partnered with Toshiba to build mini-nuke sites. (Although it’s not the most auspicious sign that one prominent startup for modular reactors suspended its operations after growing cash-light last month.) Those small sites typically use uranium enriched to about 2 percent. “It would be really, really difficult to divert the fuel” for a bomb “unless you really knew what you were doing,” Parthemore says.

But Darpa doesn’t want to take that chance. Only “non-proliferable fuels (i.e., fuels other than enriched uranium or plutonium) and reactor designs that are fundamentally safe will be required of reactors that may be deployed to regions where hostile acts may compromise operations.”

Sensible, sure. But it limits your options: outside of uranium or plutonium, thorium is the only remaining source for generating nuclear fuel. The Indians and now the Chinese have experimented with thorium for their nuclear programs, but, alas, “no one has ever successfully found a way” to build a functioning thorium reactor, Parthemore says, “in a safe and economical manner.”

For now, Darpa proposes to spend $10 million of your money studying the feasibility of the project. But it’s just one part of the researchers’ new push to green the military. Another $10 million goes to a project called Energy Distribution, which explores bringing down energy consumption on the FOBs. An additional $5 million will look at ways to keep fuel storage from degrading in extreme temperatures. For $50 million, Darpa proposes to build a turbine engine that uses 20 percent less energy.

But all of that is mere isotopes compared to the Nuclear FOB. Darpa appears to have thought about it a lot. It says it plans to work with the Department of Energy “to ensure that existing advanced reactor development activities are being exploited and/or accelerated as appropriate, based on the military’s needs.”

Still, if it can’t find the right non-proliferable fuel, it suggests that it might look to the “development of novel fuels.” Says a stunned Parthemore, “I have no idea why you’d want to bring that upon the world.”

#### Host countries say no to nuclear reactors on forward bases

Hanson Causbie 12, USMA, “DEPLOYABLE NUKES: THE FUTURE OF NUCLEAR POWER IN THE DEPLOYED ENVIRONMENT,” March 13, 2012, http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&ved=0CCgQFjAB&url=http%3A%2F%2Fwww.tisp.org%2Findex.cfm%3Fpk%3Ddownload%26id%3D12423%26pid%3D10261&ei=thhfUPWCPJGo8gSPtYGQDw&usg=AFQjCNEnR\_tppBkULkU4ooSpUePh9d5v3g&sig2=X5XVLIO7XQI9GcGeoIaDDA

The Army may also require additional security and safety measures because of the dangers of nuclear power even though the units are buried underground and thus safe from threats of terrorism or theft. Even though the reactors discussed are buried underground and are relatively isolated from terrorist threats more research and analysis needs to be done by both the Army as well as the manufacturer to address security concerns.

These challenges do not exist with the current power infrastructure. Personnel are already trained to maintain generators with minimum security and safety requirements. Generators also do not require special transport as they are not considered as volatile and dangerous as their nuclear counterparts. Additionally, the stigma associated with nuclear power does not exist with diesel power production. Education of the military population regarding the safety of nuclear power as well as our coalition partners is essential to successful use of this technology. While a host nation may not have an issue with diesel generators they may have concerns with the installation of a nuclear power facility on their own soil.

#### Forward basing renewables is key to air force power projection

LBM 8 --- Livebetter Magazine – Center for A Better Life, “The U.S. Air Force: Pushing the Envelope: Creating Solutions for America’s Energy Concerns" Vol. 2, No. 1, Jan/Feb 2008, http://livebettermagazine.com/eng/magazine/pdf/LiveBetter\_issue\_02.pdf?-session=user\_pref:42F947961d9df34905nxpt32434F

The economic impact of energy is having a tremendous effect upon America at home and on the job. To combat this effect, consumers and businesses alike are undergoing major transformations to better manage their resources, to rethink their priorities, to more effectively pursue their goals and to enable better decision-making. The U.S. Air Force is no exception to this changing mindset. In some areas it plays by different rules from the private sector, but the Air Force is just as concerned with transformation as any business looking to **ensure it is relevant tomorrow**. **Energy efficiency is a key enabler in this** metamorphosis, and the Air Force’s top leadership has a **holistic strategy** for dealing with it.¶ Rising energy prices, with their impact on the bottom line, drive how the Air Force operates, particularly with a $7 billion annual energy budget – $6 billion for aviation fuel and $1 billion for facility energy. With this level of resources at stake, sustainability becomes critical, especially when it’s driven by today’s economics. The Air Force is addressing key issues with a new comprehensive energy strategy overseen by the Secretary of the Air Force’s Senior Focus Group for Energy. Its plan incorporates all energy-consuming activities from aircraft acquisition to flying operations and running the installations that support them. The strategy is designed to reduce the Air Force’s energy consumption, carbon footprint and cost of operations while simultaneously eliminating waste. One example of an aviation initiative is the use of simulators to reduce actual flight hours in order to deliver huge energy savings. Another step is considering how much fuel to load onto an aircraft and how much to land with because the additional weight of fuel has an energy cost or energy burden. And, yet another energysaver is the use of synthetic fuels called “synfuels.”¶ The Air Force’s infrastructure energy strategy (facilities and ground fuels) is part of an overarching approach and accounts for 20 percent of the Air Force’s total energy use (aviation fuel accounts for the remaining 80 percent). This synergistic, holistic protocol is made up of four “pillars” consisting of: improving the current infrastructure, improving the future infrastructure, expanding renewables and managing costs. These pillars include programs of change to extend and to improve the life cycle and energy efficiency of buildings while incorporating sustainability practices to build better for the future.¶ A Case for a Culture Change¶ Major General Del Eulberg,The Air Force Civil Engineer, explains why the Air Force’s new strategy and culture change are so critical: “The continued pressure on the defense budget, along with the continued demand relative to Middle East operations, has really put a focus, almost a sense of urgency, on our need to better manage our built environment, as well as our operations. We need to free up resources so that the warfighters in harm’s way have everything they need to conduct operations. For example, saving energy at MalmstromAir Force Base frees up resources to make sure we can get the up-armored vehicles to the Airmen on the ground in Iraq and Afghanistan. There is a direct linkage between turning that light switch on and off and helping those guys in harm’s way.”¶ The Air Force’s focus on energy is not new; it’s been imbedded in their DNA since America’s first oil embargo. As a matter of fact, the Air Force Senior Focus Group on Energy received the Presidential Award for Leadership in Federal Energy Management during a special ceremony at the White House on Nov. 2, 2007. The Air Force has a proud history of not only meeting but, in many cases, exceeding Presidential conservation mandates, such as Executive Order (EO) 13123, which required a 30 percent increase in efficiency from 1986 to 2005. This committed effort by the Air Force saved taxpayers $2.9 billion in energy costs. The current Presidential mandate, EO 13423, challenges all federal agencies to change their culture and to become more energy aware in order to meet an even more aggressive efficiency goal of an additional 30 percent by 2015.¶ So, what’s changed? “I think the link,” according to The Civil Engineer, “is understanding that our installations worldwide, not just our airplanes, are three-dimensional weapons systems made up of the built environment and the natural environment; and all the various components have value that enable us to train our Airmen in peacetime and to conduct operations in wartime. So part of the Air Force transformation is developing a culture shift that requires an understanding of asset management and its linkage to our ability to conduct operations. How we manage 166 installations around the world, valued at $243 billion, impacts how we operate every day. It impacts how we train people, the decisions they make, as well as the associated resource implications. Our transformation is all about understanding asset management, and energy is a key subset of that.”¶ An Historic Transformation¶ This is an historic Air Force transformation that holistically and synergistically revolves around the energy-driven components of aviation, the built and natural environment, and ground fuels. Major General Eulberg chairs the group that is responsible for the transformation of the Air Force built environment, natural environment and ground fuels; he reports directly to the Secretary of the Air Force’s top energy management steering group, the Air Force Energy Senior Focus Group. According to The Civil Engineer, “America’s Air Force is very concerned about its obligations to conduct its missions in support of the national defense, and we owe it to the American people to do it as efficiently and as effectively as possible. When you look at the demand and supply side of energy, it is important to address this at every level of the organization. This is not going to be improved by one policy letter from a General in Washington, D.C. This has to permeate every level of the U.S. Air Force, affecting everybody’s lifestyle – how they think every day and how they go about their business in accomplishing their mission.”¶ The Air Force already has an impressive start on its way to this culture change. According to the Environmental Protection Agency’s “Green Power Partnership,” this military branch is already the Federal Government’s No. 1 purchaser of green power and No. 5 purchaser nationwide. In fact, 10 percent of the Air Force’s electricity is from renewable sources. This includes a growing capability to actually produce green power on air bases. The Air Force operates 166 bases consisting of $243 billion in real property with 700 million square feet of facilities worldwide. According to Major General Eulberg, “Our basing strategy **allows the Air Force to project air power for our nation**. We have gone through two major base realignment and closure (BRAC) actions, and we still have excess basing capacity. We need to close more bases. Short of that, our challenge is how do we shrink our bases, our infrastructure, from the inside out?” Part of this strategy is to find more efficient ways to operate our bases, and the energy strategy is a vital component of the overall strategic approach.¶ Renewable Energy Diversifies Supply¶ **Renewable energy is a means to shrink a base from the inside**. Under its renewable energy strategic pillar, the Air Force is expanding on-base renewable energy production. One example is the use of wind turbines at both F.E. Warren and the Ascension Islands – a total capacity of 4 megawatts (MW) – and the Air Force has plans to expand this approach to several other installations. At Nellis Air Force Base, crews broke ground this past April on North America’s largest photovoltaic (PV) solar array system – 14.2 MW – enough energy to supply upward of 25 percent of the installation’s power needs or the rough equivalent of 2,200 American households’ use. This project was accomplished via a partnership between the Air Force, the State of Nevada and the private sector with no taxpayer dollars. The agreement allows a private company to use land on the base to produce solar power in exchange for 20 years of reduced power rates for the Air Force. The environmental benefits are clear; the project occupies 140 acres on base with 33 acres being part of an old “capped” landfill that couldn’t be used for other purposes without an expensive environmental cleanup. To make things even better, the project will help the State of Nevada reduce its greenhouse gas footprint by 24,000 tons of carbon dioxide. The project is a win-win for all as it allowed a public utility to meet its state mandate for supplying renewable power to its customers. The array will be complete by mid-December 2007.¶ In addition, according to Major General Eulberg, “we have examples of using biomass to generate power, as we’re doing at Hill Air Force Base, where we basically use the methane gas off a landfill to generate power. We have an aggressive program to go after renewables because, again, it not only makes economic sense; it gives us energy security. If we can generate this energy on our installations, it’s more secure. We’re pursuing the transition to renewable energy wherever feasible – whether it be biomass, waste-to-energy, wind generation or PV systems. We have examples of all four of those going on right now and lots of options and opportunities for the future.”¶ The Air Force’s dedication to renewables is apparent by its own renewable energy generation and by its financial support to private industry through direct purchases of green power. Purchasing green power from utility providers costs more per kilowatt hour (kWh) than traditional forms of energy; however, the Federal Government is allowed to do so, with the support of Congress, where it makes sense. This is the Air Force’s means of socio-economic outreach — supporting an industry and a vision to help spur economic development in alternative energy use. Another forward-thinking move by the Air Force is their use of alternative fuels for vehicles, as well as its expanding use of low-speed vehicles on all bases to reduce energy use and greenhouse gas (GHG) emissions.¶ Pushing the Envelope on Alternative Fuels¶ The General was particularly excited and proud when speaking about the Air Force’s use of alternative fuels for aviation. “I’m very encouraged by the increased emphasis on the aviation side of the Air Force on saving energy relative to aviation fuels. And, I’m very proud to say that the United States Air Force is really pushing the envelope relative to alternative fuels in the aviation industry. We had the B-52 test where we flew a bomber with a synthetic fuel blend. The private sector was watching that very closely because if we can use alternative fuels in the aviation industry, using the United States Air Force as the example, **the impact to our nation is huge**. Not only does it save the Air Force money with less reliance on foreign energy sources, **but just** **think what the economic impact would be for the aviation industry** and our nation. This is an exciting area that deserves a lot of attention.”¶ The Fundamental Importance of Conservation¶ Renewable energy is new and exciting, but conservation is critical. According to the General, it is the basic “blocking and tackling” of the energy management business. Renewable energy gets a lot of attention as it is technologically very intriguing, but the economic conditions and renewable resources don’t exist in the right combination in all locations. However, in day-to-day operations any facility manager will find opportunities to save money by paying close attention to how energy is consumed by things like the building’s heating, ventilating, air conditioning and lighting systems. Additionally, Air Force budgets for new construction will allow for replacement of only 3 to 5 percent of existing buildings and infrastructure in the next eight to ten years. As a result, this military branch’s primary focus is on improving current infrastructure through increased awareness, fact-based decision management and focused technologies with proven payback. There are numerous examples of energy and water conservation on air bases such as at Peterson Air Force Base in Colorado, which uses native grasses and other low water-consuming landscaping as well as storm runoff for golf course irrigation. Engineers at Misawa Air Base in Japan completely replaced the lighting in an aircraft hangar. The benefits include reduced energy use and higher-quality lighting for aircraft maintenance technicians. Modernizing and extending the life of existing facilities is an integral part of the Air Force’s strategy and – done right – it can result in better energy efficiency, lower cost and higher-quality facilities for the mission.¶ As the Air Force shrinks its force by 40,000 people, or about 10 percent, it is critical that the organization come up with new ways to do business and new ways to transform itself. According to Major General Eulberg, “. . . that’s our challenge, as we reduce the number of personnel, we have to be more efficient and effective and transform the way we do business. We have to more effectively manage these 166 bases because as we draw down people, if we don’t change how we do business, then all we’re going to ask our people to do is ‘more with less’ and, for me, that’s a failure in leadership. It’s a retention issue; it’s a recruitment issue; it’s a warfighting issue. Bottom line: We have to do things better than we’re doing them today.¶ “I think the key is, whether corporate America or the U.S. Air Force, leadership has to set the expectation, create the environment and allow people to succeed. Said another way, you give them the vision; give them the structure; and they utilize their talents to make a difference for the future. And that’s really what we’re trying to do. And, as we change the culture of the United States Air Force, as we think about energy in everything we do, I think we can all benefit as a result of that – the environment, **our national defense** and our ability to **free up resources** to do other things.”