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# Inherency

#### The Energy Policy Act of 2005 only designated the DOI as the lead federal agency for OSW development- other federal agencies retained permitting authority and jurisdiction

Weber 7

[Lucas, no qualifications available, published on WindPower.net- the North American Offshore Wind Power Information Project, “Offshore Wind Energy Permitting”, May 10, p. online//wyo-tjc]

While several issues regarding the sufficiency of a Corps permit for offshore wind energy development along the OCS were being litigated60, the Energy Policy Act of 2005 was enacted. Section 388 of the Energy Policy Act of 2005 eliminates the regulatory uncertainty surrounding offshore wind energy development by establishing explicit authority for permitting renewable energy and related uses of the OCS.62 Section 388 amends the OCSLA by adding subsection 43 U.S.C. § 1337(p)(1), which authorizes the Secretary of the Interior (Secretary), in consultation with other relevant agencies, to grant leases, easements, or rights-of-way on the OCS for specific activities, including wind energy development.63 In essence, it entrusts the Department of the Interior (Department) with the authority to grant offshore property interests for the purpose of renewable energy development on the OCS and the authority to regulate activities resulting from such development.

The Act creates a framework that shifts authority to the Department without completely striping all other agencies of their authority. It is careful to make clear that federal agencies with permitting authority under other federal laws still retain their jurisdiction, notwithstanding the enactment of section 388.64 Thus, the offshore developments will be subject to multiple permitting requirements.65 Despite the care taken to preserve other agencies’ permitting authority, the Act fails to designate a lead agency to coordinate federal permitting and prepare NEPA analyses. The Department, however, infers from several of section 388’s provisions that it is to serve as the lead agency. For example, the Secretary is directed to consult with other agencies during the process of awarding leases, easements, or rights-of-way.66 Also, the Department must ensure that activities carried out under this new authority provide for coordination with relevant federal agencies.67 Therefore, federal agencies may retain their permitting authority over offshore renewable energy development but the Department serves as the lead agency.

# Plan

#### The United States federal government should give exclusive permitting authority to the Bureau of Ocean Energy Management for the production of offshore wind power in the United States.

# Solvency

#### Federal permitting consolidation is key to circumvent opposition to OSW and create certainty - state action is insufficient- opponents will just challenge at the federal level

Kimmell and Stalenhoef 11

[Kenneth, general counsel to the Massachusetts Executive Office of Energy and Environmental Affairs, was responsible for overseeing the state permitting of the Cape Wind project, and now serves as the Commissioner of the Massachusetts Department of Environmental Protection, and Dawn, environmental law attorney and Counsel for the Massachusetts Department of Public Utilities, Golden Gate University Environmental Law Journal, “The Cape Wind Offshore Wind Energy Project: A Case Study of the Difficult Transition to Renewable Energy”, p. asp//wyo-tjc]

The Cape Wind saga reveals that the current permitting process for offshore wind energy projects is broken. If the nation is serious about developing offshore wind energy projects along its coasts, Congress must advance reform. One place to look for inspiration, ironically, is Massachusetts. Despite its reputation for long and protracted siting battles, Massachusetts has instituted two major reforms that could serve as models for federal reform of offshore wind-project permitting. The first model reform is a “one-stop permitting” law that enables the State Energy Facilities Siting Board to issue a single permit and eliminates the need for any additional state or local permits.85 Enacted during the energy crisis of the early 1970’s, this law ensures that state and local agencies do not block power plants and infrastructure needed for a reliable energy supply. The law allows the Siting Board to step in when an energy project proponent is denied a necessary permit or experiences significant delays, including those caused by litigation.86 The Siting Board has broad representation: it is composed of the Executive Office of Energy and Environmental Affairs, the Department of Environmental Protection, the Department of Energy Resources, the Department of Public Utilities, and three citizen members representing labor, environmental, and consumer interests.87 It has wide jurisdiction and can review all of the various impacts of energy facilities that would be examined by state or local permitting agencies. It may also receive the input of all state and local agencies that would otherwise be called upon to grant permits.88 This authority ensures that all issues and all possible objections are heard once, rather than multiple times by multiple agencies. And unlike with most permits issued by state agencies, the appeals process is streamlined. Indeed, there is but one appeal of a Siting Board approval, which goes directly to the state Supreme Judicial Court.89 As noted above, this law was crucial to the success of Cape Wind’s permitting on the state level, because it ensured that the permitting of the electric cables would not get bogged down in other state and local level permitting, or be delayed by judicial appeals of such permit decisions. Had this law not been in place, it is likely that Cape Wind would still be in litigation with the Cape Cod Commission over its denial of the electric cables and would be defending the license issued by the Department of Environmental Protection allowing the cables to be placed in Massachusetts’ tidelands. There is no comparable “one-stop permitting” option for offshore wind projects available at the federal level. While the EPACT established that the MMS (now referred to as the Bureau of Ocean Energy Management, Regulation, and Enforcement, or BOEMRE) plays the leading-agency role for issuance of an offshore lease, numerous other federal agencies such as the Army Corps of Engineers, Environmental Protection Agency, Federal Aviation Administration, and the Coast Guard will still need to issue separate approvals for the project. Federal agencies, including the U.S. Fish and Wildlife Service, National Park Service, and the Advisory Council on Historic Preservation, will also play significant “consultative” roles. Rather than having the appeals of the permits lodged in one court, federal law provides for multiple appeals in various federal courts that will have to be resolved before the project can finally proceed. This multiplicity of permitting and consultative agencies, and numerous potential judicial appeals, is a formula for delay, confusion, redundancy, and inconsistency. In short, it is a boon for the forces of inertia.

#### Lack of one-stop permitting destroys the regulatory certainty and timeframe necessary for OSW investment decisions- placing authority under the department of the interior’s lead agency is essential

Weber 7

[Lucas, no qualifications available, published on WindPower.net- the North American Offshore Wind Power Information Project, “Offshore Wind Energy Permitting”, May 10, p. online//wyo-tjc]

As the above description of the various permitting authorities illustrates, the regulatory process for offshore wind energy development can be overwhelming. In order to combat this problem, there must be some form of centralized management. In Europe, the common practice is to use a “one-stop shop office” approach.136 Under this approach, the developers communicate with one official contact office to handle everything from administrative to legal matters. A recent study by the International Energy Agency concluded that the use of “one stop shop offices” has been a success from the point of view of both agencies and developers.137 The MMS, as the lead agency, would be perfect for this “one-stop shop” position. As the one-stop shop agency for wind energy permitting on the OCS, the MMS could streamline the approval process by coordinating with all of the other relevant agencies. In fact, the Energy Policy Act of 2005 mandates such coordination.138 Therefore, the MMS should coordinate efforts with the other relevant agencies to form a one-stop shop permitting office for wind energy development on the OCS. IV. CONCLUSION In sum, developing the United States’ potential for using offshore wind energy will contribute to security of energy supply, reduce dependency on fuel imports, reduce emissions of greenhouse gases and other pollutants, and improve environmental protection. Despite a vast potential for offshore wind energy along the OCS, the MMS is holding potential development hostage through regulatory delay and time-consuming replications of environmental reviews. It is vital that the MMS reduce the regulatory confusion and establish a unified coordinated approach to ensure the expeditious, yet responsible, development of offshore wind energy.

# Grid

#### Grid failures inevitable- heat, storms, winds, hacking, solar flares and mistakes make an economically crippling blackout inevitable

Montgomery 12

[“Special Report: Vermont's vulnerable power grid”, Jeff Montgomery, Dan D’Ambrosio and Greg Clary Project team reporters. 8-26**-** 2012**,** <http://www.burlingtonfreepress.com/article/20120826/NEWS/308260016/Special-Report-Vermont-s-vulnerable-power-grid//uwyokb>]

Extreme weather is putting America’s power grid to the test, with a year-long run of violent storms and record heat battering a system built for fairer skies. As Vermont prepares to note the one-year anniversary of Tropical Storm Irene on Tuesday, energy officials are acknowledging climate change as a force that finally has to be reckoned with — even as concern grows over other threats that can set off catastrophic blackouts. Winter storms, chains of heat waves and late June’s “super derecho” — a thunderstorm with straight-line winds that snapped electrical transmission towers and shredded power poles in the Mid-Atlantic States — have forced the climate change issue and electric supply vulnerability to the top of an already-daunting list of blackout triggers. Those threats range from computer-hacking cyberterrorists to solar flares, utility mistakes and plain bad luck. Regulators in the U.S. hope to avoid the kind of cascading grid failure that hit India in late July, leaving some 600 million — 10 percent of the world’s population — without power. Miners were trapped underground. Trains shut down. Unimaginable traffic snarls popped up across the country. And India’s image as a rising economic power was cast in darkness. A major blackout in hyper-wired America would also have crippling consequences, with some experts predicting economic losses up to $180 billion. “This is really the fundamental linchpin for everything in our society, our economy, our quality of life,” said Massoud Amin, a University of Minnesota professor and longtime electric industry analyst and consultant. “By deferring infrastructure upgrades, we are basically increasing the risk for the whole system.”

#### Meltdowns are likely after a black-out: an outage will take days to recover- the best plants in the US can last 16 hours without external power

[Cappiello](http://search.boston.com/local/Search.do?s.sm.query=Dina+Cappiello&camp=localsearch:on:byline:art), 11

Dina, staff writer, “NRC casts doubt on US reactors’ blackout plans” <http://www.boston.com/news/nation/washington/articles/2011/04/29/nrc_casts_doubt_on_us_reactors_blackout_plans/?camp=pm>, accessed 10/24/12,WYO/JF

The nation’s top nuclear regulator cast doubt yesterday on whether reactors in the United States are prepared for the type of days-long power outage that struck a nuclear power plant in Japan. The Nuclear Regulatory Commission has required reactors to cope without power from either the electrical grid or emergency diesel generators for four to eight hours. After that time, it assumes some electrical power will be restored. Chairman Gregory Jaczko of the NRC questioned whether four hours is enough time, even though it is unlikely a nuclear power plant would lose power from both the grid and generators as the Japan plant did. Requirements put in place after the Sept. 11 terrorist attacks are expected to lengthen plants’ ability to withstand a blackout. “Four hours doesn’t seem to be a reasonable time to restore offsite power if you lost the diesels immediately,’’ Jaczko said at a commission meeting at the NRC’s Rockville, Md., headquarters. “In the event there is a station blackout that is externally driven, I’m not convinced that in that situation four hours’’ is enough time to restore power. An Associated Press investigation last month examined the risk to the nation’s 104 nuclear reactors to a complete loss of electrical power. In the United States, such a “station blackout’’ has happened only once, at the Vogtle Electric Generating Plant in eastern Georgia in 1990. There, power was restored in 55 minutes. The Japan disaster showed that it could be days before the electricity needed to pump water and keep the radioactive core from melting can be turned back on. The Fukushima Daiichi plant had capacity for eight hours of emergency battery power. When that elapsed, the plant operator struggled to find other ways to cool the cores without onsite or offsite power. “It wasn’t the earthquake or the tsunami that caused the Fukushima nuclear catastrophe — it was an electricity outage. A blackout shouldn’t cause a meltdown,’’ Representative Edward Markey, Democrat of Malden, said in a statement. He has filed legislation that includes expanding the time reactors are required to cope without power. Of the 104 nuclear reactors in the United States, 87 can cope for four hours without power or emergency generators. Another 14, including the Pilgrim Nuclear Power Station in Plymouth, Mass., can cope for eight hours, and three can last for 16 hours. Most reactors rely on batteries for this power source. Markey’s bill calls for a comprehensive approach to improving the safety of the nation’s nuclear plants. It would include requiring reactors to have at least 72 hours of capacity for battery generators. The bill also calls for 14 days of power from backup diesel generators to be available. Currently, plants are required to have seven days of such power available. As part of a review initiated after the Japan disaster, the nuclear commission is looking at whether the blackout rule needs to be updated. At the time the rule was written in the 1980s, the commission assumed electrical power could be restored in 50 minutes to two hours. The NRC added an additional two hours to that time as a safety buffer. Since then, plants have lost offsite power for longer periods of time. In every case, diesel generators kicked on and supplied electrical power, sometimes for days. There also are agreements with power grid operators that nuclear power plants get first priority as power is restored. “We have a high expectation you will restore offsite power, restore emergency diesels or use alternate sources,’’ said Pat Hiland, director of the NRC’s reactor regulation engineering division. But Jaczko, the NRC chairman, pointed out that the blackout regulation is designed to deal with a situation where even diesel generators do not work, as in the case of the Fukushima Daiichi plant in Japan. A top staffer told NRC commissioners yesterday that the Japan situation “has definitely improved’’ in recent weeks. Bill Borchardt, NRC’s executive director for operations, said that while there are still many unanswered questions about equipment failures and other problems at the facility, the situation is “certainly not as highly dynamic’’ as it was. Overall, Japan is “making progress,’’ he said

#### A meltdown in the Northeast United States would quickly escalate and spread clouds of intense radiation around the globe- survivors will envy the dead

Wasserman 01(Harvey Wasserman, senior editor of NIRS, October 2001, “America’s Terrorist Nuclear Threat to Itself” < http://www.nirs.org/reactorwatch/security/wassermannukesecurity.htm> WYO/JF)

Without continous monitoring and guaranteed water flow, the thousands of tons of radioactive rods in the cores and the thousands more stored in those fragile pools would rapidly melt into super-hot radioactive balls of lava that would burn into the ground and the water table and, ultimately, the Hudson. Indeed, a jetcrash like the one on 9/11 or other forms of terrorist assault at Indian Point could yield three infernal fireballs of molten radioactive lava burning through the earth and into the aquifer and the river. Striking water they would blast gigantic billows of horribly radioactive steam into the atmosphere. Prevailing winds from the north and west might initially drive these clouds of mass death downriver into New York City and east into Westchester and Long Island. But at Three Mile Island and Chernobyl, winds ultimately shifted around the compass to irradiate all surrounding areas with the devastating poisons released by the on-going fiery torrent. At Indian Point, thousands of square miles would have been saturated with the most lethal clouds ever created or imagined, depositing relentless genetic poisons that would kill forever. In nearby communities like Buchanan, Nyack, Monsey and scores more, infants and small children would quickly die en masse. Virtually all pregnant women would spontaneously abort, or ultimately give birth to horribly deformed offspring. Ghastly sores, rashes, ulcerations and burns would afflict the skin of millions. Emphysema, heart attacks, stroke, multiple organ failure, hair loss, nausea, inability to eat or drink or swallow, diarrhea and incontinance, sterility and impotence, asthma, blindness, and more would kill thousands on the spot, and doom hundreds of thousands if not millions. A terrible metallic taste would afflict virtually everyone downwind in New York, New Jersey and New England, a ghoulish curse similar to that endured by the fliers who dropped the atomic bombs on Hiroshima and Nagaskai, by those living downwind from nuclear bomb tests in the south seas and Nevada, and by victims caught in the downdrafts from Three Mile Island and Chernobyl. Then comes the abominable wave of cancers, leukemias, lymphomas, tumors and hellish diseases for which new names will have to be invented, and new dimensions of agony will beg description. Indeed, those who survived the initial wave of radiation would envy those who did not. Evacuation would be impossible, but thousands would die trying. Bridges and highways would become killing fields for those attempting to escape to destinations that would soon enough become equally deadly as the winds shifted. Attempts to quench the fires would be futile. At Chernobyl, pilots flying helicopters that dropped boron on the fiery core died in droves. At Indian Point, such missions would be a sure ticket to death. Their utility would be doubtful as the molten cores rage uncontrolled for days, weeks and years, spewing ever more devastation into the eco- sphere. More than 800,000 Soviet draftees were forced through Chernobyl's seething remains in a futile attempt to clean it up. They are dying in droves. Who would now volunteer for such an American task force? The radioactive cloud from Chernobyl blanketed the vast Ukraine and Belarus landscape, then carried over Europe and into the jetstream, surging through the west coast of the United States within ten days, carrying across our northern tier, circling the globe, then coming back again. The radioactive clouds from Indian Point would enshroud New York, New Jersey, New England, and carry deep into the Atlantic and up into Canada and across to Europe and around the globe again and again. The immediate damage would render thousands of the world's most populous and expensive square miles permanently uninhabitable. All five boroughs of New York City would be an apocalyptic wasteland. The World Trade Center would be rendered as unusable and even more lethal by a jet crash at Indian Point than it was by the direct hits of 9/11. All real estate and economic value would be poisonously radioactive throughout the entire region. Irreplaceable trillions in human capital would be forever lost. As at Three Mile Island, where thousands of farm and wild animals died in heaps, and as at Chernobyl, where soil, water and plant life have been hopelessly irradiated, natural eco-systems on which human and all other life depends would be permanently and irrevocably destroyed, Spiritually, psychologically, financially, ecologically, our nation would never recover. This is what we missed by a mere forty miles near New York City on September 11. Now that we are at war, this is what could be happening as you read this. There are 103 of these potential Bombs of the Apocalypse now operating in the United States. They generate just 18% of America's electricity, just 8% of our total energy. As with reactors elsewhere, the two at Indian Point have both been off-line for long periods of time with no appreciable impact on life in New York. Already an extremely expensive source of electricity, the cost of attempting to defend these reactors will put nuclear energy even further off the competitive scale. Since its deregulation crisis, California---already the nation's second-most efficient state---cut further into its electric consumption by some 15%. Within a year the US could cheaply replace virtually with increased efficiency all the reactors now so much more expensive to operate and protect. Yet, as the bombs fall and the terror escalates, Congress is fast-tracking a form of legal immunity to protect the operators of reactors like Indian Point from liability in case of a meltdown or terrorist attack. Why is our nation handing its proclaimed enemies the weapons of our own mass destruction, and then shielding from liability the companies that insist on continuing to operate them? Do we take this war seriously? Are we committed to the survival of our nation? If so, the ticking reactor bombs that could obliterate the very core of our life and of all future generations must be shut down.

#### OSW solves the advantage:

#### Wind uniquely solves blackouts in the Northeast creates resiliency against disruptions, design does not create cascades and allows instantaneous power-up after a crisis, cutting the length of blackouts

Wood, 11/1

Elisa, Correspondent for Renewable Energy World, “Hurricane Sandy Uncovers Strength and Simplicity of Renewable Energy Systems” <http://www.renewableenergyworld.com/rea/news/article/2012/11/hurricane-sandy-uncovers-strength-and-simplicity-of-renewable-energy-systems?cmpid=WNL-Friday-November2-2012>, accessed 11/5/12,WYO/JF

Wind and solar are relatively safe forms of energy, a feature that we tend to overlook until a disaster hits like the "superstorm" that disabled New York City's power grid this week. Unlike fossil fuel plants, they require no combustible fuels to generate electricity. And there is no danger that they will leak radiation as did the Fukushima-Daiichi nuclear plant following last year’s tsunami in Japan. Hence, the Northeast’s wind and solar farms evoked little public anxiety this week when Hurricane Sandy hit – unlike the nuclear and fossil fuel infrastructure. Safety officials kept a careful eye on the nuclear power plants and three were shut down in New Jersey and New York. And the smell of natural gas in any flooded areas drew quick attention from those who understood the danger. These anxieties speak to a larger difference between renewables and conventional generation. Specifically, wind and solar operate under simpler systems that are prone to fewer problems, say renewable energy advocates. Simple Design, Simple Operations First of all, wind and solar do not need additional energy inputs to produce electricity or cool a reactor, said John Kourtoff, president and CEO of Toronto-based Trillium Power Wind. There is no need for natural gas, oil or coal to be excavated, transported and applied to the system. Instead, they produce electricity by taking advantage of a form of energy that is already available – wind and sun. Second, they mimic nature in design, so they tend to be more resilient and withstand natural disasters better, he said. “Renewables at their core are simple bio-mimicry based on nature. This simple and closed aspect makes them successful when storms and natural disasters happen, whether hurricanes, earthquakes, or tsunamis,” Kourtoff said. He pointed out that last year’s tsunami in Japan devastated a nuclear plant, but [wind turbines](http://www.renewableenergyworld.com/rea/news/article/2011/05/the-dangers-of-energy-generation) near the shore suffered no harm. Wind and solar farms mimic a natural cell-like structure, so they are less likely than conventional power plants to succumb to a cascading failure, according to Kourtoff. You lose a blade on a wind tower and you don’t lose the whole wind farm — just like you don’t kill a flower if a petal comes off. But for more complex energy systems, like fossil fuel and nuclear plants, failure in one part can bring down the entire production facility in a cascade, he said. “You can put a spike through a solar panel yet the rest of the solar farm runs because it runs on a cellular-like model. If one cell is not operational, the others continue to operate,” he said. He calls nuclear and fossil fuel plants industrial age technologies, and recent wind and solar, “Renewables 2.0,” designs that have grown simpler, with fewer moving parts and more efficient functioning. Kourtoff also likened wind and solar design – at least in philosophy – to the products created by Steve Jobs, which emphasized simplicity, elegance and human appeal. “Why do people like Apple products? They like them because of the simplicity of design. People see beauty in simplicity, in nature. You never hear anyone say, ‘Look at that beautiful nuclear plant.’ But if you see wind turbines moving gracefully in the water, they look beautiful,” Kourtoff said. The simplicity also offers practical benefits. “In terms of renewable energy, it can certainly help the grid come back quickly from weather situations like Hurricane Sandy,” said Carol Murphy, executive director, Alliance for Clean Energy New York. “It can take nuclear plants a week or more to come back online. Wind and solar, like other generators, do shut down during extreme weather conditions, but they can be back up and produce power quickly.” How Did Renewables Weather the Storm? Based on early assessments, renewable energy facilities seemed to fare well during Hurricane Sandy. ISO New England said it received no reports of any damage to wind or solar facilities from the storm. Iberdrola Renewables, which owns wind farms in Massachusetts, New Hampshire, New York and Pennsylvania, reported few problems. “We monitored the situation through the night and shut down sites as a precaution to protect equipment from extreme winds. Inspections today have revealed minimal damage so far. We are very satisfied with the response of our people and the performance of the sites through an exceptional event,” said Jan Johnson, Iberdrola Renewables’ communications director. Long Island suffered some of the most severe destruction, wiping out service to most of the Long Island Power Authority’s 1.1 million customers. But the island’s 32-MW Long Island Solar Farm appears to have come through fairly well. Nothing “catastrophic” happened at the facility, according to Matt Hartwig, spokesman for BP Alternative Energy, which operates the solar farm. “They are beginning their assessment, which initially shows damage to the fence around the facility as well as some module damage, the extent of which is not yet known.” New York, Connecticut and other hard hit areas happen to be in various stages of devising long-term energy plans. We’ll soon see if Hurricane Sandy – and lessons learned about renewable energy performance in storms – will add a new dimension to policy decisions about the future role of wind and solar.

#### OSW solves East Coast electricity demand- drops prices and solves grid congestion that creates cascades

Marcacci 12

[Silvio, Principal at Marcacci Communications, a full-service clean energy public relations company based in Washington, D.C., Clean Technica, “Offshore Wind On The Atlantic Cost Could Create 300,000 Jobs And $200 Billion In Economic Activity”, p. online//wyo-tjc]

Beyond creating new jobs and economic activity building and operating all these new turbines, plugging offshore wind into our nation’s grid can increase reliability and lower utility prices. Offshore winds blow strongest during the day and in heat waves – precisely the points when demand for electricity is highest and the risk of power shortages most acute. In addition, the greatest potential wind power lies along some of the East Coast’s biggest cities. Grid congestion has constrained the ability of cheaper power to reach these demand pools and created some of the highest power prices in the country.

But if these population centers could tap into steady electricity being generated just offshore, growing demand could be met cheaply. In fact, New York State’s grid operator recently found consumers save $300 million in wholesale electricity costs for every 1 GW of wind on the grid.

#### OSW is uniquely key to solve electricity demand in the United States- it overcomes transmission costs, intermittency, and load capacity factors all because it is on the water\*\*

Schroeder 10

[Erica, J.D. from University of California, Berkeley, School of Law, 2010. And Masters in Environmental Management from Yale School of Forestry & Environmental Studies, “Turning Offshore Wind On”, California Law Review, p. ln//wyo-tjc]

Many of the most compelling benefits of offshore wind are similar to those of onshore wind, though offshore wind has its own unique set of benefits. To start, wind power generation can help meet the growing energy demand in the United States. The U.S. Energy Information Administration predicts that the demand for electricity in the United States will grow to 5.8 billion MWh in 2030, a 39 percent increase from 2005.58 The more that wind power can help to meet this demand, the more diversified the United States’ energy portfolio will be, and the less susceptible the nation will be to dependency on foreign fuel sources and to price fluctuations in traditional fuels.59 In addition, wind power benefits the United States by creating a substantial number of jobs for building and operating the domestic wind energy facilities.60 In an April 2009 speech at the Trinity Structural Towers Manufacturing Plant in Iowa, President Obama predicted that if the United States ―fully pursue[s] our potential for wind energy on land and offshore,‖ wind power could create 250,000 jobs by 2030.61

Once a wind project is built, it involves only minimal environmental impacts compared to traditional electricity generation. Wind power emits negligible amounts of traditional air pollutants, such as sulfur dioxide and particulate matter, as well as carbon dioxide and other greenhouse gases.62 Lower emissions of traditional air pollutants means fewer air quality-related illnesses locally and regionally.63 Lower greenhouse gas emissions will help to combat climate change, effects of which will be felt locally and around the world.64 According to the International Panel on Climate Change (IPCC), the effects of climate change will include melting snow, ice, and permafrost; significant effects on terrestrial, marine, and freshwater plant and animal species; forced changes to agricultural and forestry management; and adverse human health impacts, including increased heat-related mortality and infectious diseases.65 The U.S. Energy Information Administration estimates that the United States emits 6 billion metric tons of greenhouse gases annually, and it expects emissions to increase to 7.9 billion metric tons by 2030, with 40 percent of emissions coming from the electric power sector.66 Thus, if the United States can get more of its electricity from wind power, it will contribute less to climate change, and help to mitigate its negative impacts. Furthermore, wind power does not involve any of the additional environmental costs associated with nuclear power or fuel extraction for traditional electricity generation, such as coal mining and natural gas extraction.67 Wind power generation also does not require the water necessary to cool traditional coal, gas, and nuclear generation units.68

Moreover, offshore wind power has certain attributes that give it added benefits compared to onshore wind. Wind tends to be stronger and more consistent offshore—both benefits when it comes to wind power generation.69 This is largely due to reduced wind shear and roughness on the open ocean.70 Wind shear and roughness refer to effects of the landscape surrounding turbines on the quality of wind and thus the amount of electricity produced.71 While long grass, trees, and buildings will slow wind down significantly, water is generally very smooth and has much less of an effect on wind speeds.72 In addition, because offshore wind projects face fewer barriers—both natural and manmade—to their expansion, offshore developers can take advantage of economies of scale and build larger wind farms that generate more electricity.73

Importantly, offshore wind also could overcome the problems that onshore wind faces regarding the distance between wind power generation and electricity demand. That is, although the United States has considerable onshore wind resources in certain areas, mostly in the middle of the country, they are frequently distant from areas with high electricity demand, mostly on the coasts, resulting in transmission problems.74 By contrast, offshore resources are near coastal electricity demand centers.75 In fact, twenty-eight of the contiguous forty-eight states have coastal boundaries, and these same states use 78 percent of the United States’ electricity.76 Thus, offshore wind power generation can effectively serve major U.S. demand centers and avoid many of the transmission costs faced by remote onshore generation.77 If shallow water offshore potential (less than about 100 feet in depth) is met on the nation’s coasts, twenty-six of the twenty-eight coastal states would have sufficient wind resources to meet at least 20 percent of their electricity needs, and many states would have enough to meet their total electricity demand.78

# Ship Building

#### U.S. Shipbuilding industry is collapsing

Paulo Santos, 12

Paulo Santos is a Portuguese independent trader, analyst and algorithmic trading expert, having worked for both sell side (brokerage) and buy side (fund management) institutions. “Expecting A Bust In The Shipbuilding Industry” <http://seekingalpha.com/article/341301-expecting-a-bust-in-the-shipbuilding-industry>, accessed 12/20/12,WYO/JF

As the [Baltic Dry Index](http://www.bloomberg.com/apps/quote?ticker=BDIY:IND) plunges ever lower, [taking out the 2008 lows](http://seekingalpha.com/article/336001-baltic-dry-index-plumbs-new-lows), we've already concluded that many dry ship bulkers will [go under the bankruptcy waves](http://seekingalpha.com/article/318245-as-shipping-gets-no-relief-bankruptcies-are-to-be-expected) in this cycle. However, there are other obvious consequences of this pricing environment. We know that one of the clear reasons why freight rates are imploding is simply too many ships being delivered. And such an influx of ships was the result of the bubble in freight rates that took place during 2007 and early 2008, together with long delivery periods. Thus, today's incredibly low rates will lead to the opposite - precious few ships will be ordered and made in the next 2 years or so. So certainly, the shipbuilders are going to hit a dry spell here. Unfortunately, shipbuilding is something that's long gone from the U.S. economy and markets, and other than Huntington Ingalls Industries ([HII](http://seekingalpha.com/symbol/hii)), I can't even locate any other shipbuilder. Naturally, HII doesn't fit this thesis, since it does mostly military work. Certainly, we can follow the events through a [worldwide shipbuilding index](http://www.bloomberg.com/apps/quote?ticker=BWSHIP:IND) published by Bloomberg, but that won't cut it as far as trading goes, since the shipbuilding companies are mostly Korean, like Hyundai and Daewoo as well as Chinese, such as Yangzijiang Shipbuilding. There is, however, another consequence of a bust in shipbuilding. It's something that adds to other factors I've already [written about](http://seekingalpha.com/article/320883-steel-is-in-china-s-hands), regarding the Chinese Economy slowdown, namely the drop in auto production that's already occurring, and the predicted drop in residential construction, given that residential prices are already falling. What is this consequence? Well, those large ships take a lot of steel. If you don't make ships, you don't use steel. So this is one more reason why the steel sector will face substantial headwinds during 2012, with United States Steel ([X](http://seekingalpha.com/symbol/x)), AK Steel Holding Corporation Co ([AKS](http://seekingalpha.com/symbol/aks)), Arcelor Mittal ([MT](http://seekingalpha.com/symbol/mt)) and Nucor ([NUE](http://seekingalpha.com/symbol/nue)) being potentially exposed to these developments. Right now, these steel shares are being bought under the general theory that slightly better economic numbers in the U.S. will lead to higher steel consumption and prices, yet these effects I've been describing, from auto and residential production in China, to shipbuilding, are much more important than any increased demand on U.S. soil. It's thus not a surprise that, as I have written earlier, steel prices are already falling.

#### Thriving OSW industry jumpstarts shipbuilding and port improvements throughout the US- leadership now is crucial to avoid the US shipping industries and ports from being locked-out of global competition

Bondaref 12

[Joan, analyst with Blank Rome LLP, “Is the Time Right to Expedite Offshore Wind”, North American Wind Power, July, p. <http://www.nawindpower.com/digitaleditions/Main.php?MagID=2&MagNo=31> //wyo-tjc]

Europe has been at the forefront of renewable energy and, in particular, offshore wind. Like the DOD, Europe has made a commitment to renewable energy and set a more ambitious goal of having 20% of its energy consumption from renewable sources by 2020. Each member of the European Union (EU) has a national action plan to achieve this goal, and Europe is well on its way to meeting its objective. In 2009, wind constituted 7.7% of renewable energy sources in Europe. This has also resulted in the creation of over 1 million new jobs, according to a recent report by market research firm EurObserv’ER. One burgeoning market in Europe that the U.S. should emulate is the offshore supply and support vessel industry. Innovative designs for new support vessels, such as catamarans and crew-transfer vessels that can perform well in high-sea states, have come online and can be deployed rapidly to new and existing offshore wind farms. One U.K. company is building 25 crew-transfer vessels a year. Smart U.K. boat builders that are working in the offshore wind industry have also entered into licensing agreements with U.S. boat builders, which not only will bring jobs to a flagging industry, but also should enhance support for offshore wind. Similarly, European port owners and operators are reaping the benefits of offshore wind farm projects. How European ports have positioned themselves as “epicenters” of offshore wind operations and support bases is discussed at length in the September 2011 issue of North American Windpower (“U.S. Ports Model Themselves After European Counterparts,” page 50). Instead of working to stymie offshore wind farms for fear of interference with shipping traffic, U.S. ports should focus on the new jobs and financial opportunities that would be created by similar projects in the U.S. To ensure that these high-tech, high-paying jobs come to the U.S., it requires leadership at the federal and state levels. The U.S. should do what it can to bring about the development of this clean industry, and not sit by while other regions such as the EU, India and China take over what could be a strong manufacturing base and job market for years to come.

**Commercial shipbuilding’s key to naval power**

**NLUS 12** Navy League of the United States, “America’s Maritime Industry The foundation of American seapower”, 2012, <http://www.navyleague.org/files/americas-maritime-industry.pdf>, Date Verification – http://gsship.org/industry-links/

**Defense Industrial Base: Shipbuilding** The American Maritime Industry also contributes to our national defense by sustaining the shipbuilding and repair sector of our national defense industrial base upon which our standing as a **seapower** is based. History has proven that **without a strong maritime infrastructure**—shipyards, suppliers, and seafarers—no country can hope to build and support a Navy of sufficient size and capability to protect its interests on a global basis. Both our commercial and naval fleets **rely on U.S. shipyards** and their numerous industrial vendors for building and repairs. The U.S. commercial shipbuilding and repair industry also impacts our national economy by adding billions of dollars to U.S. economic output annually. In 2004, there were 89 shipyards in the major shipbuilding and repair base of the United States, defined by the Maritime Administration as including those shipyards capable of building, repairing, or providing topside repairs for ships 122 meters (400 feet) in length and over. This includes six large shipyards that build large ships for the U.S. Navy. Based on U.S. Coast Guard vessel registration data for 2008, in that year U.S. shipyards delivered 13 large deep-draft vessels including naval ships, merchant ships, and drilling rigs; 58 offshore service vessels; 142 tugs and towboats, 51 passenger vessels greater than 50 feet in length; 9 commercial fishing vessels; 240 other self- propelled vessels; 23 mega-yachts; 10 oceangoing barges; and 224 tank barges under 5,000 GT. 11 Since the mid 1990’s, the industry has been experiencing a period of modernization and renewal that is largely market-driven, backed by long-term customer commitments. Over the six-year period from 2000-05, a total of $2.336 billion was invested in the industry, while in 2006, capital investments in the U.S. shipbuilding and repair industry amounted to $270 million.12 The state of the industrial base that services this nation’s Sea Services is **of great concern** to the U.S. Navy. **Even a modest increase** in oceangoing commercial shipbuilding would give a **substantial boost** to our shipyards and marine vendors. Shipyard facilities at the larger shipyards in the United States are capable of constructing merchant ships as well as warships, but often cannot match the output of shipyards in Europe and Asia. On the other hand, U.S. yards construct and equip the best warships, aircraft carriers and submarines in the world. They are unmatched in capability, but **must maintain that lead**. 13

**Robust maritime industry key to military readiness**

**AMP 2012**

(American Maritime Partnership, “U.S. TRANSCOM General Says Domestic Maritime Industry is "Fourth Arm of Defense”, 5-22, <http://www.americanmaritimepartnership.com/news/2012/052212%20NMD.html>, DOA: 7-13-13)

**U.S. TRANSCOM Commanding General William Fraser III today said maintaining a strong domestic maritime industry is critical to the defending the homeland**, describing the sector as the "fourth arm of defense." The Air Force General's remarks came at a National Maritime Day celebration at the Washington Navy Yard.¶ "**Maintaining a national maritime industrial base and strong partnerships with the commercial maritime industry is critically important to the Department of Defense**," Gen. Fraser said. "**A strong commercial American industry is particularly important during times of budget cuts."¶** General Fraser's remarks came on the 79th anniversary of National Maritime Day, which annually recognizes the men and women of the U.S. merchant marine for their contributions to American commerce and the U.S. military. In 1933, Congress designated May 22nd as American Maritime Day to commemorate the U.S.-flag steamship SAVANNAH embarking on what was the first-ever transoceanic voyage under steam power in 1819.¶ This historic voyage was the first of many maritime milestones attributed to the U.S. merchant marine. In the decades that have followed, **American companies and mariners have pioneered innovations such as the containership, self-unloading vessel, articulated tug-barge units, railroad-on-barge carfloats and many other breakthroughs**.¶ The Jones Act, the federal law that promotes the U.S. merchant marine of skilled seafarers and U.S.-flagged vessels, has made these innovations possible**. By maintaining a viable domestic maritime industry, this law enables the flow of domestic waterborne commerce and supports a naval and military auxiliary in times of war or national emergency.¶** Today, **the maritime industry is the most economical form of domestic transportation**, moving more than 1 billion tons of cargo annually at a fraction of the cost of other modes. This efficient transportation mode helps the economy run smoothly and sustains nearly 500,000 jobs. It is also good for the environment as ships and tug/barge units use less fuel and produce fewer emissions than land-based modes of transportation.¶ **The maritime sector plays an indispensible national defense role**, **fulfilling key support functions for the U.S. military. During Operations Enduring Freedom and Iraqi Freedom (2002-2010), U.S.-flag commercial vess**els, including ships and seafarers drawn from the domestic trades, **transported 90 percent of all military cargoes moved to Afghanistan and Iraq.**

**Heg prevents great power war**

**Brooks, Ikenberry, and Wohlforth ’13** (Stephen, Associate Professor of Government at Dartmouth College, John Ikenberry is the Albert G. Milbank Professor of Politics and International Affairs at Princeton University in the Department of Politics and the Woodrow Wilson School of Public and International Affairs, William C. Wohlforth is the Daniel Webster Professor in the Department of Government at Dartmouth College “Don’t Come Home America: The Case Against Retrenchment,” International Security, Vol. 37, No. 3 (Winter 2012/13), pp. 7–51), accessed 1/18/13,WYO/JF

A core premise of **deep engagement** is that it **prevents the emergence of a far more dangerous global security environment**. **For one thing**, as noted above, **the U**nited **S**tates’ **overseas presence gives it the leverage to restrain partners** **from taking provocative action**. Perhaps more important, **its core alliance commitments** also **deter states with aspirations to regional hegemony from contemplating expansion and make** **its partners more secure**, **reducing** their **incentive to adopt solutions to their security problems that threaten others** **and thus stoke** **security dilemmas**. The contention that engaged U.S. power dampens the baleful effects of anarchy is consistent with influential variants of realist theory. Indeed, arguably the scariest portrayal of the war-prone world that would emerge absent the “American Pacifier” is provided in the works of John **Mearsheimer**, who **forecasts** **dangerous multipolar regions replete with security competition, arms races, nuclear proliferation and associated preventive war temptations, regional rivalries, and even runs at regional hegemony and full-scale great power war.** 72 **How do retrenchment advocates**, the bulk of whom are realists, **discount this benefit**? **Their arguments are complicated**, **but two capture most of the variation**: (1**) U.S. security guarantees are not necessary to prevent dangerous rivalries and conflict in Eurasia; or** (2) **prevention of rivalry and conflict in Eurasia is not a U.S. interest**. Each response is connected to a different theory or set of theories, which makes sense given that the whole debate hinges on a complex future counterfactual (what would happen to Eurasia’s security setting if the United States truly disengaged?). Although a certain answer is impossible, each of these responses is nonetheless a weaker argument for retrenchment than advocates acknowledge. The first response flows from defensive realism as well as other international relations theories that discount the conflict-generating potential of anarchy under contemporary conditions. 73 **Defensive realists maintain that the high expected costs of territorial conquest, defense dominance, and an array of policies and practices that can be used credibly to signal benign intent, mean that Eurasia’s major states could manage regional multipolarity peacefully without the American pacifier.** Retrenchment would be a bet on this scholarship, particularly in regions where the kinds of stabilizers that nonrealist theories point to—such as democratic governance or dense institutional linkages—are either absent or weakly present. There are three other major bodies of scholarship, however, that might give decisionmakers pause before making this bet. First is regional expertise. **Needless to say, there is no consensus on the net security effects of U.S. withdrawal**. Regarding each region, there are optimists and pessimists. **Few experts expect a return of intense great power competition** in a post-American Europe, **but many doubt European governments will pay the political costs of increased EU defense cooperation and the budgetary costs of increasing military outlays**. 74 **The result might be a Europe that is incapable of securing itself from various threats that could be destabilizing within the region and beyond** (e.g., a regional conflict akin to the 1990s Balkan wars), lacks capacity for global security missions in which U.S. leaders might want European participation, and is vulnerable to the influence of outside rising powers. What about the other parts of Eurasia where the United States has a substantial military presence? **Regarding the Middle East, the balance begins to swing toward pessimists concerned that states currently backed by Washington— notably Israel, Egypt, and Saudi Arabia—might take actions upon U.S. retrenchment that would intensify security dilemmas. And concerning East Asia, pessimism regarding the region’s prospects without the American pacifier is pronounced. Arguably the principal concern expressed by area experts is that Japan and South Korea are likely to obtain a nuclear capacity and increase their military commitments, which could stoke a destabilizing reaction from China**. **It is notable that during the Cold War, both South Korea and Taiwan moved to obtain a nuclear weapons capacity and were only constrained from doing so by a still-engaged United States.** 75 The second body of scholarship casting doubt on the bet on defensive realism’s sanguine portrayal is all of the research that undermines its conception of state preferences. Defensive realism’s optimism about what would happen if the United States retrenched is very much dependent on its particular—and highly restrictive—assumption about state preferences; once we relax this assumption, then much of its basis for optimism vanishes. Specifically, the prediction of post-American tranquility throughout Eurasia rests on the assumption that security is the only relevant state preference, with security defined narrowly in terms of protection from violent external attacks on the homeland. Under that assumption, the security problem is largely solved as soon as offense and defense are clearly distinguishable, and offense is extremely expensive relative to defense. **Burgeoning research across the social and other sciences**, however, **undermines** that **core assumption: states have preferences not only for security but also for prestige, status, and other aims, and they engage in trade-offs among the various objectives**. 76 In addition, they define security not just in terms of territorial protection but in view of many and varied milieu goals. **It follows that even states that are relatively secure may nevertheless engage in highly competitive behavior.** **Empirical studies show that this is indeed sometimes the case**. 77 In sum, a bet on a benign post retrenchment Eurasia is a bet that leaders of major countries will never allow these nonsecurity preferences to influence their strategic choices. **To the degree that these bodies of scholarly knowledge have predictive leverage, U.S. retrenchment would result in a significant deterioration in the security environment in at least some of the world’s key regions.** We have already mentioned the third, even more alarming body of scholarship. Offensive realism predicts that **the withdrawal of the American pacifier will yield either a competitive regional multipolarity complete with** associated **insecurity, arms racing, crisis instability**, nuclear **proliferation, and** the like, or **bids for regional hegemony,** **which** **may be beyond the capacity of local great powers to contain** (and which in any case would generate intensely competitive behavior, possibly including regional great power war). Hence it is unsurprising that retrenchment advocates are prone to focus on the second argument noted above: that avoiding wars and security dilemmas in the world’s core regions is not a U.S. national interest. **Few doubt** that **the U**nited **S**tates **could survive** the return of **insecurity and conflict** among Eurasian powers, **but at what cost**? Much of the work in this area has focused on the economic externalities of a renewed threat of insecurity and war, which we discuss below. Focusing on the pure security ramifications, there are two main reasons why decision makers may be rationally reluctant to run the retrenchment experiment. First, **overall higher levels of conflict make the world a more dangerous place.** Were Eurasia to return to higher levels of interstate military competition, one would see overall higher levels of military spending and innovation and a higher likelihood of competitive regional proxy wars and arming of client states—all of which would be concerning, in part because it would promote a faster diffusion of military power away from the United States. **Greater regional insecurity could** well **feed proliferation** cascades, **as states such as Egypt, Japan, South Korea, Taiwan, and Saudi Arabia** all might **choose to create nuclear forces**. 78 It is unlikely that proliferation decisions by any of these actors would be the end of the game: they would likely generate pressure locally for more proliferation. Following Kenneth Waltz, many retrenchment advocates are proliferation optimists, assuming that nuclear deterrence solves the security problem. 79 Usually carried out in dyadic terms, the debate over the stability of proliferation changes as the numbers go up. Proliferation optimism rests on assumptions of rationality and narrow security preferences. In social science, however, such assumptions are inevitably probabilistic. Optimists assume that most states are led by rational leaders, most will overcome organizational problems and resist the temptation to preempt before feared neighbors nuclearize, and most pursue only security and are risk averse. Confidence in such probabilistic assumptions declines if the world were to move from nine to twenty, thirty, or forty nuclear states. In addition, many of the other dangers noted by analysts who are concerned about the destabilizing effects of nuclear proliferation—including the risk of accidents and the prospects that some new nuclear powers will not have truly survivable forces—seem prone to go up as the number of nuclear powers grows. 80 Moreover, **the risk of “unforeseen crisis dynamics**” that **could spin out of control** is also higher as the number of nuclear powers increases. Finally, add to these concerns the enhanced danger of nuclear leakage, and a world with overall higher levels of security competition becomes yet more worrisome. The argument that maintaining Eurasian peace is not a U.S. interest faces a second problem. On widely accepted realist assumptions, **acknowledging that U.S. engagement preserves peace dramatically narrows the difference between retrenchment and deep engagement**. **For** many **supporters of retrenchment, the optimal strategy** for a power such as the United States, which has attained regional hegemony and **is separated from** other **great powers by oceans, is offshore balancing: stay over the horizon and “pass the buck” to local powers to do the dangerous work of counterbalancing any local rising power.** The United States should commit to onshore balancing only when local balancing is likely to fail and a great power appears to be a credible contender for regional hegemony, as in the cases of Germany, Japan, and the Soviet Union in the midtwentieth century. **The problem is that China’s rise puts the possibility of its attaining regional hegemony on the table, at least in the medium to long term**. As Mearsheimer notes, “**The United States will have to play a key role in countering China, because its Asian neighbors are not strong enough to do it by themselves**.” 81 Therefore, unless China’s rise stalls, “the United States is likely to act toward China similar to the way it behaved toward the Soviet Union during the Cold War.” 82 **It follows that the United States should take no action that would compromise its capacity to move to onshore balancing in the future. It will need to maintain key alliance relationships in Asia as well as the formidably expensive military capacity to intervene there. The implication is to get out of Iraq and Afghanistan,** reduce the presence in Europe, **and pivot to Asia**— just what the United States is doing. 83 In sum, **the argument that U.S. security commitments are unnecessary for peace is countered by a lot of scholarship, including highly influential realist scholarship**. In addition, the argument that Eurasian peace is unnecessary for U.S. security is weakened by the potential for a large number of nasty security consequences as well as the need to retain a latent onshore balancing capacity that dramatically reduces the savings retrenchment might bring. Moreover, **switching between offshore and onshore balancing could well be difficult**. Bringing together the thrust of many of the arguments discussed so far underlines the degree to which the case for retrenchment misses the underlying logic of the deep engagement strategy. **By supplying reassurance, deterrence, and active management, the United States lowers security competition** in the world’s key regions, thereby **preventing the emergence of a hothouse atmosphere** for growing new military capabilities**. Alliance ties dissuade** **partners from ramping up** and also provide leverage to prevent military transfers to potential rivals. **On top of all this, the U**nited **S**tates’ **formidable military machine may deter entry by potential rivals.** Current great power military expenditures as a percentage of GDP are at historical lows, and thus far other major powers have shied away from seeking to match top-end U.S. military capabilities. In addition, they have so far been careful to avoid attracting the “focused enmity” of the United States. 84 All of the world’s most modern militaries are U.S. allies (America’s alliance system of more than sixty countries now accounts for some 80 percent of global military spending), and **the gap between the U.S. military capability and that of potential rivals is by many measures growing rather than shrinking**. 85

**The United States is falling behind in military capabilities because of lack of shipbuilding**

**NDU,06**

“National Defense Univeristy” The Industrial College of the Armed SHIPBUILDING 2006Forceshttp://www.dtic.mil/dtic/tr/fulltext/u2/a475378.pdf, accessed 12/2/12,WYO/JF

The 1999 Chairman of the Joint Chiefs of Staff study on Fast Attack Submarines evaluated the SSN missions required by the Combatant Commanders (COCOMs). Because of this study, the Senate Armed Services committee required that the Secretary of Defense submit a report with submission of the FY02 President’s budget to meet the requirement of maintaining at least 55 SSNs through 2015 and a plan to achieve 18 VCS by 2015. This study was conducted in more detail than most force structure studies since it reviewed prior studies. It was “conducted by personnel drawn from various military services, [and] took into account several years of operations and experience with the Navy’s post-Cold War missions [but] did not take into account information about the extent of China’s naval modernization effort that has come to light since 1999” (O’Rourke, 2006d, p. 21). VADM Konetzni also noted, “Some ten years ago, some well respected strategist said this: we can conclude that during the First **World War, the dominant vessel was the battleship, and in World War Two, it was the aircraft carrier. In future global wars, the most powerful and decisive weapon will be the submarine.** The problem is that these were not American, they were Chinese” (2006, p. 2). **Of the eighteen submarines that were commissioned last year, the Chinese built twelve while the U.S. only built one. China is outpacing the U.S. production of submarines by at least five times, and it is incorporating tactical design features that mimic the best U.S. submarines**. Additionally, China’s diesel submarine force is among the most quiet and capable of all submarines at sea today. **These alarming trends and calls for a more robust submarine force cannot be oversimplified. The U.S. must find a way to fund a capable submarine force**. The 313ship plan that lowers the total number of SSNs will not be sufficient to deter, compel, and, if necessary, defeat the twenty-first century forces arrayed against our interests.

**Lack of regulatory clarity and speed with federal permitting destroys investment decisions in OSW broadly and in ship-building specifically**

**Bondaref 12**

[Joan, analyst with Blank Rome LLP, “Is the Time Right to Expedite Offshore Wind”, North American Wind Power, July, p. <http://www.nawindpower.com/digitaleditions/Main.php?MagID=2&MagNo=31> //wyo-tjc]

**While well intentioned**, the U.S. Department of the Interior’s (**DOI) “Smart from the Start” program has not produced a lease since the program was announced in 2010.** (Cape Wind, which was awarded the first commercial lease for wind energy development along the Outer Continental Shelf in October 2010, was grandfathered**.) If the DOI waits too long** to award leases, **it will** find itself in the middle of an election campaign and **face the possibility that leases will be delayed even further** should a new administration and new Congress come to Washington, D.C**. It may also find itself faced with the loss of developers that lose heart in the slow but methodical leasing process**

 For example, **in May, Gamesa** – **citing the U.S. market’s uncertain offshore future – pulled out of its joint arrangement with** V**irginia-based Newport News Shipbuilding. Gamesa’s actions should serve as a warning to federal** and state **agencies**.

# 2AC

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#### we meet- we reduce the NEPA restriction on wind production

Russell 9

[Irma S., Dean and Professor, University of Montana School of Law, Streamlining NEPA to Combat Global Climate Change: Heresy or Necessity?, Lewis and Clark Law School’s Environmental Law Online, p. <http://www.elawreview.org/elaw/394/streamlining_nepa_to_combat_gl.html> //wyo-tjc]

The National Environmental Policy Act (NEPA)[4] requires federal agencies to consider the environmental impacts of major projects they undertake. It added to each agency's mission the additional requirement of considering the effects on the environment of federal projects.[5] To achieve its goal, NEPA mandates that "all agencies of the Federal Government . . . utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man's environment."[6] NEPA's policy seeks to foster conditions "under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans."[7] NEPA has made significant changes in the way federal agencies go about achieving their missions.[8] Fulfilling the procedural requirements of NEPA takes time and money.[9]

NEPA results in delays in virtually all major energy projects. It applies to projects requiring federal permits because permitting requirements make energy projects federal agency actions under NEPA.[10] Thus, NEPA applies to traditional energy projects such as coal-fired utilities and, additionally, to energy projects aimed at supplying energy without the GHGs associated with combustion, such as concentrated solar installations, wind farms, and wave technology. The global climate crisis raises the question of whether the NEPA process is too slow. Should Congress streamline NEPA to bring clean power online faster? The argument for streamlining NEPA is that the intensity of global climate change makes rapid transition to clean energy a necessity. This argument suggests that a categorical approach to siting and licensing of clean energy resources may be a necessary step in the move toward greening the grid. Any reduction or shortening of the NEPA process is likely to be regarded as heresy by some. The benefits of shortening the timeframe or process for input in any major federal project must be scrutinized.

#### prefer our interpretation:

#### Predictability- the NEPA process is the single largest restriction on production- it is common to every energy type and every agency.

#### Education- consolidating agency review processes exposes us to unique education that hasn’t been covered on other energy topics.

#### Second, counter-interpretation: a reduction is eliminating duplicative restrictions requiring environmental reviews

#### reduce is to bring down in extent or amount

American Heritage Dictionary 9

<http://dictionary.reference.com/browse/reduce>.

To bring down, as in extent, amount, or degree; diminish.

# Shipbuilding

**Heg high now-the U.S. is peerless in every dimension of power**

**Brzezinski 2012**

[Zbigniew K. Brzezinski, CSIS Counselor and Trustee, 2012, Strategic Vision, uwyo//amp]

The more immediate risk of the ongoing dispersal of power is a potentially unstable global hierarchy. **The United States is still preeminent** but the legitimacy, effectiveness, and durability of its leadership is increasingly questioned worldwide because of the complexity of its internal and external challenges. Nevertheless, **in every significant and tangible dimension of traditional power—military, technological, economic, and financial—America is still peerless. It has by far the largest single national economy, the greatest financial influence, the most advanced technology, a military budget larger than that of all other states combined, and armed forces both capable of rapid deployment abroad actually deployed around the world. This reality** may not endure very long but it **is still the current fact of international life.**

**Naval Capabilities are key to OSB, the aff is a pre-req to the retrenchment of heg**

**Mearsheimer 8**

[John J., professor of political science at the University of Chicago, NEWSWEEK, “Know the limits of US power”, Dec. 8, 2008, p. asp]

**The United States is in deep trouble in the Middle East**. Despite Barack Obama's promises to withdraw from Iraq, the debacle there shows no sign of ending soon. Hamas rules in Gaza; **Iran is quickly moving to acquire a nuclear deterrent. We need a radically different strategy for the region. Fortunately, there is a strategy that has proved effective in the past and could serve again today: "offshore balancing**." It's less ambitious than President Bush's grand plan to spread democracy throughout the Middle East, but **it would be much better at protecting actual U.S. interests. The United States would station its military forces outside the region. And "balancing" would mean we'd rely on regional powers like Iran, Iraq and Saudi Arabia to check each other. Washington would remain diplomatically engaged,** and when necessary would assist the weaker side in a conflict. **It would also use its air and naval power to respond quickly to unexpected threats. But--and this is the key point--America would put boots on the ground only if the local balance of power seriously broke down and one country threatened to dominate the others**.

# Grid

#### Grid is at risk now. That Montgomery. There are too many stress triggers to avoid another catastrophic blackout.

#### Future surges in electricity demand guarantee new cascading black-outs as the system gets stressed

Heyes 8-15-12
J.D. Heyes is a writer for Natural News.com August 15, 2012
Overloaded US power grid stretched to capacity; Will America follow in India's footsteps?
<http://www.naturalnews.com/036808_power_grid_collapse_outages.html#ixzz23glXL83u>, accessed 11/7/12,WYO/JF

Could the U.S. really suffer the kinds of widespread power outages that struck two-thirds of India's billion-plus population recently? Absolutely, say experts, and fixing the problem won't be cheap. While the nation's power infrastructure is referred to as a "grid," suggesting seamless interconnectivity, "the network more closely resembles a patchwork quilt stitched together to cover a rapidly expanding nation," the Washington Post reported. Experts note that the U.S. really doesn't yet face the kind of issues with its electrical infrastructure that left about 670 million Indians without power in what became the largest outage in history. But, at the same time, industry analysts say the nation's grid is definitely showing signs of aging. And, they say, it's stretched to capacity. More often than not, the grid falls victim to decrepitude rather than, say, the forces of nature, as in tornadoes and powerful storms. Nonetheless the grid is beginning to fail, say experts, who fear that such failures that caused blackouts in New York, San Diego and Boston could become ever more common as the country's demand for power grows exponentially. To fix the problem, industry analysts say it will take a multi-billion, multi-year investment if we're to avoid more frequent large-scale outages in the future.

# Solvency

#### Japan’s OSW projects make their arguments nonunique

Russia Today 19 Jan

[RT: Russian English-language news channel. "Japan to start building world's biggest offshore wind farm this summer." *RT: News*. Russia Today, 19 Jan 2013. Web. 19 Jan 2013. <http://rt.com/news/japan-renewable-energy-resource-290/>.//Wyo-BF]

Japan is to start building its ambitious wind farm project off the Fukushima coast in July. The farm is expected to become the world’s largest and produce 1GW of power once completed in 2020. ­The power-generating facility will be built 16 kilometers off the coast of the Fukushima Daiichi nuclear power plant, which was critically damaged by an earthquake and tsunami in March 2011. The 143 wind turbines, which are to be 200 meters in height, will be built on buoyant steel frames stabilized with ballast and anchored to the continental shelf. Once completed in 2020, the project will generate 1 gigawatt of renewable electrical power. The project is part of Japan’s national plan to increase renewable energy resources following the nuclear disaster at Fukushima. After the quake, Japan shut down its 54 nuclear reactors, but due to energy shortages it has had to restart two reactors. “This project is important. I think it is impossible to use nuclear power in Fukushima again,” project manager Takeshi Ishihara of the University of Tokyo told New Scientist weekly magazine. Ishihara believes the area's seismic activity won't be a problem for the turbines. His team has carried out lots of computer simulations and water tank tests in order to verify the safety of the turbines in all possible extreme events, such as earthquakes, tsunamis and typhoons. "All extreme conditions have been taken into consideration in the design," he added. There were some objections to the project by local people, who expressed concerns, in particular, over possible impact on the fishing industry, which was also hit by the nuclear disaster. But Ishihara is sure it’s possible to turn the farm into a ‘marine pasture’ that would attract fish. The project is also part of the prefecture’s plan to become completely energy self-sufficient by 2040, using only renewable sources. The Fukushima wind farm will produce double the amount of energy of the Greater Gabbard array, currently the world’s biggest, off the coast of Suffolk in the United Kingdom, which generates 504 megawatts from its 140 turbines. Although the title of biggest will soon pass to the London Array in the Thames Estuary, where 175 turbines will produce 630 megawatts of power when it becomes operational later this year. Scientists and researchers believe Japan’s wind capacity could reach 7.6 gigawatts over the next three years.

#### Grid is adapting for OSW now—all that’s needed is the turbines

Wald 14 Jan

[Wald, Matthew. "1st Part of Offshore Wind Power Line Moves Ahead." *New York Times: Energy & Environment*. New York Times, 14 Jan 2013. Web. 16 Jan 2013. <http://www.nytimes.com/2013/01/15/business/energy-environment/an-offshore-wind-power-line-moves-ahead.html?\_r=0>. //Wyo-BF]

An audacious plan to lay a multibillion-dollar wind power transmission spine under the seabed from southern Virginia to the New York City area will take a step forward on Tuesday with an announcement of plans for the first leg, a 189-mile segment running from Jersey City to a spot south of Atlantic City. The proposed backbone, first outlined publicly in October 2010, is intended to link future wind farms far offshore, sparing them the expense and regulatory problems of bringing power lines all the way to shore individually, and to move power to land-based sources. The project’s backers, which include Google and other prominent investors, argue that the buried offshore spine, impervious to storms, could also come in handy in an emergency, providing a backup for hospitals and police stations and restarting power plants in blacked-out areas. The latter selling point has gained importance for the line’s promoters as interest in offshore wind has suffered setbacks, including the declining price of natural gas, a competing energy source. The Atlantic Wind Connection, the project’s sponsor, says the first segment would run from a substation called Cardiff, near Pomona, N.J., operated by Atlantic City Electric, out into the ocean 12 to 14 miles. That leg represents less than half of the 350-mile project, but the plan was always to build it in stages. Near the line’s southern end, it would tie into multiple wind farms in a region that the Obama administration has identified as prime territory for offshore wind. Executives at Atlantic Wind say they chose to begin with a segment solely in New Jersey because the project could level the big price differences for electricity within the state, yielding an economic benefit that could justify at least some of the first leg’s $1.3 billion construction cost. Remaining within one state simplifies the regulatory process, they added, and political support for offshore wind farms is relatively strong in New Jersey. The state has mandated that 22.5 percent of its electricity must come from renewable sources by 2021, and the bulk of that is expected to come from wind, some of which may come from outside New Jersey. Very few onshore sites in the state are suitable for wind, however. New Jersey’s Offshore Wind Economic Development Act calls for at least 1,100 megawatts of offshore wind, but backers say it could go as high as 3,000 megawatts. Atlantic Wind hopes to secure regulatory approval and get the financing in place by mid-2015 and to start construction at the end of that year. Laying cable under the seabed will be an inducement for wind developers to move ahead as well, it predicts. In 2011, 11 companies expressed interest in building wind farms, although progress all over the East Coast has been quite slow. Even if those farms do not materialize as fast as was once imagined, the sponsors argue that the transmission line is justified because it would allow faster recovery from crippling storms like Hurricane Sandy. “This is great for offshore wind, but it’s supergood for the grid itself,” said Robert L. Mitchell, the chief executive of the Trans-Elect Development Company, a transmission-line business based in Bethesda, Md., that proposed the venture. A report that the company commissioned from the Chertoff Group, led by Michael Chertoff, a former secretary of homeland security, asserts that in a blackout, the line would transport electricity from a faraway location to critical facilities like hospitals and police stations, or start up power plants in blacked-out areas. Not everyone agrees on the reliability benefit, though. Jersey Central Power and Light, which serves much of the Atlantic coast, lost 55 of its 75 transmission lines in Hurricane Sandy. But even if there had been an alternative, it would not have made much of a difference, because most of the distribution lines feeding buildings were also down. “It’s certainly an interesting concept,” said Todd Schneider, a spokesman for the utility. But he said the project would “not necessarily speed restoration work during a significant storm.” The project passed a major hurdle last May when the Interior Department, which controls the ocean floor, said that preparation of an environmental-impact statement could begin. The president of the State Senate, Stephen M. Sweeney, welcomed Atlantic Wind Connection’s proposal. “The potential jobs and economic benefit this could bring to New Jersey is definitely exciting, especially in a state with the fourth-highest unemployment rate in the nation,” he said. He added that he wanted to evaluate the costs before making a decision on whether to support construction. For the project to be built, New Jersey would have to submit a request to the regional grid operator, PJM Interconnection. The first step for PJM would be to determine how much money the line would save by importing cheap power from southern New Jersey into northern New Jersey. Another factor is how much prices in southern New Jersey would rise as a result of its exports. Such transfers are now limited by congestion on the grid.

# States

Condo bad:

Time Skew – The negative already has 15 minutes to extend their arguments. Allowing them to negate part of the 2AC means the damage is already done because time pressures of the 1AR mean we can’t recover.

Allows for conditional contradictory arguments is an independent voting issue – It allows them to run a counterplan that links to politics, case arguments etc. and then go for either at the end of the debate.

Devastates the strategy of the 2AC: we can’t answer contradictory arguments with offense because we would double turn ourselves.

2AC key to depth of argumentation which is key to education.

Strat Skew– We can’t make our best offense for fear the neg will cross-apply them to other flows and counterplan solves straight turns to disads– This kills argument resolution because they don’t have to answer the best arguments

Conditionality is a voter for fairness and education.

#### First, Perm Do Both

#### Second, solvency Deficits:

#### Federal uniformity DETERMINES state-level certainty- sufficient predictability not possible without the plan

Fleischauer 11

[Patricia, Vice President of TRC Companies, a national environmental engineering and consulting firm based in Lowell, Massachusetts, “Regulatory uncertainty hindering offshore wind development”, 2.23, p. <http://ebookbrowse.com/offshore-wind-pat-fleischauer-pdf-d73772552> //wyo-tjc]

The MMS has published rules that, while not fully tested, present a roadmap for offshore development in federal waters. However, as recent discussions and reviews of efforts by several states for

development within their own waters make clear, other federal agency requirements remain a hurdle for all involved. Lacking a special permit program for demonstration projects -- such as that of the Federal Energy Regulation Commission (FERC) for ocean energy projects -- the Corps’ traditional permitting process, for example, will generally be lengthier than what is anticipated by state programs.

More importantly, states’ efforts to help spur offshore development through expedited permitting will be fruitless unless the applicable federal agency processes are similarly focused. This may include requirements such as those used by the FERC where projects must be of limited size, removable and easy to shut down. The goal of FERC pilot project-licensing is to allow for project installation, environmental testing and operation as soon as possible in order to demonstrate technologies and answer the environmental questions that will allow full-scale development to proceed. Each agency’s obligations are different, and any solutions to technology advancement would similarly be different.

Clearly, a traditional approach to permitting is not fostering offshore wind development. If our nation is serious about harnessing wind energy to help meet renewable portfolio standards, a solution to the permitting conundrum is imperative to facilitate the development of sorely needed demonstration projects in state waters.

#### Federal jurisdiction applies to ALL state waters because they are navigable

# Immigration

#### Won’t pass until at least 2014- Republicans won’t compromise

Calderón 1/18

(Sara Inés, studied at The University of Texas at San Antonio Stanford University, Director of Social Media & Community Relations at MiTú, a YouTube Network Focusing on Latina Lifestyle Editor at Más Wired Contributor at Politic365, Politic365, “Immigration reform won’t come until 2014, expert says,” January 18, 2013, http://politic365.com/2013/01/18/immigration-reform-wont-come-until-2014-expert-says///wyo-mm)

House Republicans are continue to be a roadblock for immigration reform, despite efforts in the Senate and from President Barack Obama, according to University of Texas at Austin Government Professor and immigration policy expert Terri Givens. “I definitely think he’s going to propose it because right now it’s clear that Obama is concerned about his legacy, as well as keeping promises,” Givens told us, noting the importance of keeping promises made in 2008 to Latino voters. The president is likely to work through the Senate to propose legislation, which might even result in something being passed by the summer — but then the problems would start she said. Republican House Speaker John Boehner has not had much control over the House, thus, a bipartisan effort there is unlikely, she said. “I think that it’s more likely that they are going to use the fact that it passed in the Senate as a wedge issue, against a lot of House Republicans in the 2014 election. I think that’s why you’re seeing folks like Ted Cruz of Texas and Marco Rubio of Florida trying to get ahead of the issue,” Givens said. Although Republicans like Florida Senator Marco Rubio and South Carolina Senator Lindsey Graham, and perhaps even John McCain, will likely be involved in the immigration reform efforts, it’s unlikely that House Republicans under the leadership of John Boehner will support them, Givens told Politic365. Thus, it looks like we won’t see any immigration reform until 2014, she said. “Unfortunately the timeline is probably going to be more likely close to 2014, but I think there is a chance that, for some pieces of the legislation like the DREAM Act, could possibly get through before 2014,” Givens said.

#### PTC and ITC passage mean there’s no link

Bowden 23 Jan

[Bowden, Daniel: journalist for Lumina News. "Offshore wind development still faces hurdles." *Lumina News*. Lumina News, 23 Jan 2013. Web. 24 Jan 2013. <http://www.luminanews.com/article.asp?aid=11454&iid=362&sud=30>. //Wyo-BF]

Congress recently spared federal renewable energy incentives, including the popular Production Tax Credit (PTC) and the Investment Tax Credit (ITC), during budget slashing related to averting the “fiscal cliff.” The subsidies expired on Dec. 31, 2012, but were reinstated for another year on Jan. 2, 2013. The PTC provides companies with a 2.2 cent per kilowatt-hour benefit for the first 10 years of a renewable energy facility’s operation, and the ITC will provide a 30-percent tax credit for construction costs on renewable energy products.

#### Offshore wind is bi-partisan

NAW, 11

North American Wind “New Bipartisan Legislation Proposes Offshore Wind Energy Tax Credit” <http://www.nawindpower.com/e107_plugins/content/content.php?content.8790>, accessed 11/7/12,WYO/JF

U.S. Reps. Bill Pascrell Jr., D-N.J., and Frank LoBiondo, R-N.J., [have introduced](http://pascrell.house.gov/list/press/nj08_pascrell/pr101820112.shtml) bipartisan legislation to encourage offshore wind power investment off the coast of New Jersey. The Incentivizing Offshore Wind Power Act (H.R.3238) proposes to provide a 30%tax credit on investment in the first 3,000 MW of offshore wind. The secretary of the Treasury would have to consult with the secretaries of Energy and the Interior when establishing this credit.

#### Brennan is going to be controversial—targeted killing practices are going to dredge up more debates

Resnikoff 24 Jan

[Resnikoff, Ned: writer/editor for MSNBC’s Lean Forward. "UN launches investigation into US drone strikes." *MSNBC*. MSNBC, 24 Jan 2013. Web. 25 Jan 2013. <http://tv.msnbc.com/2013/01/24/u-n-begins-investigation-into-u-s-targeted-killings/>. //Wyo-BF]

As President Obama enters his second term, there are signals that he intends to continue the targeted killing program indefinitely. The administration has been working on codifying official rules for the program since shortly before the end of the 2012 election, though there have been recent reports that these rules would exempt the CIA’s Pakistan drone campaign entirely. Obama may have also signaled his intent to go all-in on drone warfare when he nominated counterterrorism adviser John Brennan to become director of the CIA. Brennan, known by his critics as the White House’s “assassination czar,” has long been one of the key officials involved in developing and implementing the administration’s targeted killing program. In President Obama’s second inaugural address, he said, “We, the people, still believe that enduring security and lasting peace do not require perpetual war. ” Similarly, in a recent interview, Defense Secretary Leon Panetta said drones were “not something that we’re going to have to continue to use forever.” However, in the same interview, he also described drone attacks as ”a continuing tool of national defense in the future.”

# REMs

**Chinese strangle-hold will be eclipsed- new sources coming online guarantee adequate supply**

**Yan Zhou ‘11**

[China Daily, "Rare earths output ratio to decrease," <http://www.chinadaily.com.cn/cndy/2011-06/16/content\_12708457.htm>//wyo-hdm]

BEIJING - **The world's supply of rare-earth minerals will outstrip demand within five years, reversing global reliance on China's exports** as more foreign players begin exploration of their own, industrial executives said. The soaring price of rare earths will also trigger global players to cash in on the valuable minerals. **More countries with large rare-earth deposits will resume exploration after freezing it for years,** **which will lead to a global reallocation of the minerals**, Wang Hongqian, general manager of China Nonferrous Metal Industry's Foreign Engineering and Construction Co Ltd (NFC), told China Daily. Consequently, "the current tight-supply situation will not last," Wang said. The State-owned NFC has tapped into Guangdong province, the mid-heavy rare-earth-rich region, by teaming up with local firms. NFC Southern Rare Earth (Xinfeng) Co, in which NFC owns 76 percent equity, received authorities' approval in May to build the world's biggest ion-type rare-earth separation project, with an annual capacity of 7,000 tons. **Rare earth is the collective name for 17 metallic elements, of which the mid-heavy types are the most valuable because of their wide uses.** The metals are needed for some advanced technologies, such as smart phones, hybrid cars and missiles. China, which supplies more than 90 percent of the minerals, adopted strict exploration and export regulations after rampant exploration caused heavy environmental pollution. **Although it is the world's top rare-earth supplier, China controls only about 36 percent of the world's deposits.** Countries with large reserves, such as the United States and Australia, have yet to unfreeze exploration of the minerals. "More countries participating in the exploration of their own supply of rare earths will help ease the tight-supply situation and ease demand," said Chen Zhanheng, director of academic department, the Chinese Society of Rare Earths (CSRE).

#### US Ramping up domestic production

NYT, 7-5-12
(“U.S. Rare Earths Comments on Reported Chinese Heavy Rare Earths Stockpile Strategy”, Accessed 9-22-12,<http://markets.on.nytimes.com/research/stocks/news/press_release.asp?docTag=201207050930BIZWIRE_USPRX____BW5514&feedID=600&press_symbol=16888085)>, accessed 12/12/12,WYO/JF

“This news, as we ready our 2012 Drill Program, is another signal that we have to move rapidly to bring new REE mines into production,” said CEO Michael D. Parnell. “U.S. Rare Earths is doing all we can to be a reliable source for the full range of rare earths with our primary focus on the heavies.

” U.S. Rare Earths’ properties in Idaho and Montana, including Lemhi Pass, have been recognized in the U.S. Department of Energy’s Critical Materials Strategy publication to have significant showings of Heavy Rare Earth Elements, in particular for the five Rare Earths identified by DOE as being at “Critical Risk”: Dysprosium, Europium, Neodymium, Terbium and Yttrium. The Company announced on June 22 that surface rock sampling conducted in the fourth quarter 2011 at its Idaho and Montana properties near Lemhi Pass and North Fork Idaho, along with results from sampling in 2009 and 2010 indicate the presence of Total Rare Earth (TRE) ranging as high as 26%.

#### Offshore wind growth in Asia should have triggered the link

Christine Gaylican, 11

“Rare Earth Elements Supply Under Pressure Due to Asia Wind Farm Projects” <http://www.offshorewind.biz/2011/11/16/rare-earth-elements-supply-under-pressure-due-to-asia-wind-farm-projects/>, accessed 12/12/12,WYO/JF

China and South Korea’s planned investment in offshore wind farms, amounting close to $25 billion in the near future, could also affect on rare earths production. The increasing demand for environment-friendly and energy-efficient power generation is forcing China and South Korea to invest in offshore wind farms. The steel-making industries of both countries need huge amounts of power to fire up their factories. Rare earths industry pundits said the extent of these projects, which could produce close to 33 gigawatts of electricity by 2019 to 2020, would further push the demand for rare earths in the Asia-Pacific Region.

Oceanpowermagazine.net reported that “the South Korean government has joined the frenzy regarding offshore wind development in the Asia-Pacific region. On the heels of China’s big investment announcement in offshore wind energy capacity, the South Koreans, who currently import 97 percent of their energy needs, will invest $9 billion U.S. dollars to develop a 2.5 gigawatt offshore wind farm by 2019, the largest in the country. “This is not just about providing much-needed domestic energy production. The South Korean government is leading the project and is planning to procure turbines from eight local suppliers. The intent is to also build capacity in the [wind turbine](http://www.offshorewind.biz/2011/11/16/rare-earth-elements-supply-under-pressure-due-to-asia-wind-farm-projects/) business, taking on Europe, the U.S. and China. The South Koreans will spend about $1 billion U.S. this year on feed in tariffs to support solar, wind and other renewable energy projects.” The Chinese Communist Party’s official newspaper, The People’s Daily, reported that China plans to increase installed capacity of its offshore wind power sector to 30 gigawatts by 2020 with investments of almost $16 billion in U.S. dollars. China is new to the offshore wind energy market with only 142,500 kilowatts of installed capacity at the end of 2010, the result of only one project, the Shanghai Donghai Bridge. The various and extensive use of permanent magnets in electronic gadgets, radars, hybrid cars, energy efficient [solar panels](http://www.offshorewind.biz/2011/11/16/rare-earth-elements-supply-under-pressure-due-to-asia-wind-farm-projects/) and wind turbines will continuously push the demand and price for rare earths in 2012, IBTimes.com earlier reported. This is the assessment of U.S. rare earths producer Molycorp CEO Mike Smith in a dialogue with company shareholders led by Baron Capital Chairman and CEO Ron Baron.

# Microgrids

#### Offshore wind solves a decentralized grid

NREL 2010

(National Renewable Energy Laboratory): Large-Scale Offshore Wind Power in the United States ASSESSMENT OF OPPORTUNITIES AND BARRIERS. <http://www.nrel.gov/wind/pdfs/40745.pdf>

Offshore wind power is poised to deliver an essential contribution to a clean, robust, and diversified U.S. energy portfolio. Capturing and using this large and inexhaustible resource has the potential to mitigate climate change, improve the environment, increase energy security, and stimulate the U.S. economy. The United States is now deliberating an energy policy that will have a powerful impact on the nation’s energy and economic health for decades to come. This report provides a broad understanding of today’s wind industry and the offshore resource, as well as the associated technology challenges, economics, permitting procedures, and potential risks and benefits. An appreciation for all sides of these issues will help to build an informed national dialog and shape effective national policies. 1.1 Opportunities in Offshore Wind Power In common with other clean, renewable, domestic sources of energy, offshore wind power can help to build a diversified and geographically distributed U.S. energy mix, offering security against many energy supply emergencies—whether natural or man-made. Wind power also emits no carbon dioxide (CO2) or other harmful emissions that contribute to climate change, ground-level pollution, or public health issues.

# 1ar

**Costs won’t trade off with primacy-it’s cheap to maintain**

**Kagan 2012**

[Robert Kagan, Senior Fellow at the Brookings Institution, The World America Made, 2012 uwyo//amp]

What about the financial expense? **Many seem to believe that the cost of these deployments**, and of the armed forces generally, **is a major contributor to the soaring fiscal deficits that threaten the solvency of the national economy. But this is not the case**, either. As the former budget czar Alice Rivlin has observed, **the scary projec- tions of future deficits are not "caused by rising defense spending,"** much less by spending on foreign assistance.**125 The runaway deficits projected for the coming years are mostly the result of ballooning entitlement spending. Even the most draconian cuts in the defense budget would produce annual savings of only $50 billion to $100 billion**, a small fraction—between 4 and 8 percent—of the $1.5 trillion in annual deficits the United States is facing. In 2002, when Paul Kennedy was marveling at America's ability to remain **"the world's single superpower on the cheap," the United States was spending about 3.4 percent of GDP on defense. Today it is spending 4 percent, and in years to come, that is likely to head lower again— still "cheap" by historical standards. The cost of remaining the world's predominant power is not prohibitive.)**

#### China transitioning to OSW now

UPI 16 Jan

[“China revs up wind power amid challenges.” *UPI: Energy Resources.* UPI, 16 Jan 2013. Web. 24 Jan, 2013. <http://www.upi.com/Business_News/Energy-Resources/2013/01/16/China-revs-up-wind-power-amid-challenges/UPI-96591358360261/>. //Wyo-BF]

As the world's largest wind power market, China continues to push forward with wind power installations, yet it faces ongoing problems with grid connection. New wind power installations in China in 2012 brought the country's grid-connected capacity to more than 60 gigawatts, says the State Electricity Regulatory Commission. While a total of 100.4 billion kilowatt hours of electricity was generated by wind power last year -- an increase of 35.5 percent over 2011 -- only 12.85 gigawatts was connected to the grid, compared to 2011's figure of 16 gigawatts "In the past few years, wind farm development has been too rapid and grid construction has not been able to keep up. The huge gap put a lot of pressure on the grid," said Ma Jinru, vice-president and secretary of the board at Goldwind Group, one of China's biggest manufacturers of wind power equipment, China Daily reports. In a news release Monday promoting a Shanghai wind power exposition, the deputy director general of China's National Energy Administration said that wind energy is China's third largest source of electricity. "Wind power has become the third-largest electric power in China," Liu Qi said. "There is no electric power to substitute the position of wind power as number three, following thermal power and hydropower." As part of the National Energy Administration's renewable energy development plan announced last August, China is aiming for 100 gigawatts of wind power to be connected to the grid by 2015, including 5 gigawatts of offshore wind power. Improved grid construction and dispatching, enhanced equipment performance help the wind power sector reach to reach the 100 gigawatt goal, the news release states.

#### No shortage – there’s seven times the neodymium needed to solve

Jacobson,12

Stanford Atmosphere/Energy Program and Salerno, AWEA Industry Data and Analysis Director, 9-14-12 Mark, Civil and Environmental Engineering Professor, and Elizabeth, “Wind Power Plentiful, Study Says,” NPR, [www.npr.org/2012/09/14/161156783/wind-power-plentiful-study-says](http://www.npr.org/2012/09/14/161156783/wind-power-plentiful-study-says), accessed 12/12/12,WYO/JF
A lot of interesting tweets coming in wondering about do we have the resources to build all those wind turbines, Mark? I mean... JACOBSON: In fact we looked at the materials needed, and so for example for wind turbines, you need a rare earth element called neodymium, and there's actually about seven times more neodymium resources available that we know of worldwide than you would need to produce four million large wind turbines.

 And there's plenty of steel and concrete, as well. So the resources are not limits. SALERNO: Let me add that there was actually a study that was done. I mean, this is a great question, something we've asked, as well. There was a study done back in 2008, actually under the Bush administration, looking at what would it take for us to do 20 percent of our generation from wind in the United States. And it looked at the technical needs, the steel, concrete, all of the different component parts, the transmission, the human resources, all the skilled labor. And it looked at all of those elements and said yes, it is not only technically possible, but it economically makes sense for this country. And it was a technical study, not necessarily a goal, but it was something that we looked at, and we've decided that we can get there. We can get to 20 percent, and if you look at where we're at today in the U.S., we're actually on track to get to 20 percent by 2030.