### **Off**

Financial incentives are grants or loans—government purchases are distinct.

Czinkota et al 9—Associate Professor at the McDonough School of Business at Georgetown University, Michael, Fundamentals of International Business, p. 69 – google books

Incentives offered by policymakers to facilitate foreign investments are mainly of three types: fiscal, financial, and nonfinancial. Fiscal incentives are specific tax measures designed to attract foreign investors. They typically consist of special depreciation allowances, tax credits or rebates, special deductions for capital expenditures, tax holidays, and the reduction of tax burdens. Financial incentives offer special funding for the investor by providing, for example, land or buildings, loans, and loan guarantees. Nonfinancial incentives include guaranteed government purchases; special protection from competition through tariffs, import quotas, and local content requirements, and investments in infrastructure facilities.

Vote neg

Limits—government procurement allows tons of new affs dealing with the military, government research facilities and almost any government service, this explodes the topic making deep debate and predictable ground impossible.

Ground—most topic arguments assume a private-sector based increase in energy production like investment tradeoffs, environmental DAs or condition the company CPs, government procurement dodges all these.

### Off

Electricity prices are stabalizing

Hargreaves 1/31 (Steve, KCCI 9 Des Moines, “Energy Prices on the rise again,” http://www.kcci.com/news/project-economy/Energy-prices-on-the-rise-again/-/9356884/18334390/-/nik312z/-/index.html)

Energy prices have been rising fast. But not enough to derail the economic recovery. Not yet anyway. Over the last month, crude oil prices have risen over 4% and are approaching $100 a barrel. Analysts think they'll soon trade in the triple digits. Gasoline futures are up even more, rising 8% over the last 30 days. At the pump, drivers are now paying 14 cents more a gallon than they were in mid December. The only outlier is natural gas, which is used to heat homes, among other things. Natural gas prices have fluctuated widely based on the weather, and have fallen about 4% this month as the cold snap gripping much of the country was expected to ease. Energy analysts say prices are rising partly because the cyclical nature of energy prices -- they often rise ahead of strong summer demand -- is happening earlier and earlier each year. But they're also rising because there's a sense the economy is getting better. When that happens, higher gas prices can lead people to pull back spending on other things -- a self-defeating prophecy that crimps any economic recovery in progress. "Higher energy prices act as a tax increase," said Chris Lafakis, a senior economist at Moody's Analytics, noting that they're also coming on the heels of another tax increase -- the expiration of the payroll tax holiday -- at the start of the year. "That sets us up for weakness." Lafakis said that every penny that gasoline prices rise costs consumers a billion dollars over the course of the year. But he doesn't think the drag will have a noticeable effect on economic growth quite yet. Oil and gas prices were, after all, at this level just a couple of months ago. Oil prices were substantially higher at the start of last year. "We've withstood $100 a barrel before, and we can do it again," said Beth Ann Bovino, deputy chief economist at Standard & Poor's. If prices went considerable higher -- Bovino mentioned $150 a barrel -- that might not be the case. Fortunately for drivers and the economy at large, no one is predicting record prices this year. Largely thanks to an oil and gas production boom in this country, gasoline prices are expected to top out somewhere between $3.50 a gallon and $3.90 a gallon this year, according to Tom Kloza, chief oil analyst at the Oil Price Information Service. Last year's record high was $3.94 a gallon, set in early April.

Nuclear power jacks up prices

Cooper 9 (Mark, SENIOR FELLOW FOR ECONOMIC ANALYSIS INSTITUTE FOR ENERGY AND THE ENVIRONMENT¶ VERMONT LAW SCHOOL, "THE ECONOMICS OF NUCLEAR REACTORS: RENAISSANCE OR RELAPSE?," http://www.vermontlaw.edu/Documents/Cooper%20Report%20on%20Nuclear%20Economics%20FINAL%5B1%5D.pdf)

Within the past year, estimates of the cost of nuclear power from a new generation of ¶ reactors have ranged from a low of 8.4 cents per kilowatt hour (kWh) to a high of 30 cents. This ¶ paper tackles the debate over the cost of building new nuclear reactors, with the key findings as ¶ follows: ¶ • The initial cost projections put out early in today’s so-called “nuclear renaissance” were about ¶ one-third of what one would have expected, based on the nuclear reactors completed in the ¶ 1990s. ¶ • The most recent cost projections for new nuclear reactors are, on average, over four times as ¶ high as the initial “nuclear renaissance” projections. ¶ • There are numerous options available to meet the need for electricity in a carbon-constrained ¶ environment that are superior to building nuclear reactors. Indeed, nuclear reactors are the worst ¶ option from the point of view of the consumer and society. ¶ • The low carbon sources that are less costly than nuclear include efficiency, cogeneration, ¶ biomass, geothermal, wind, solar thermal and natural gas. Solar photovoltaics that are presently ¶ more costly than nuclear reactors are projected to decline dramatically in price in the next ¶ decade. Fossil fuels with carbon capture and storage, which are not presently available, are ¶ projected to be somewhat more costly than nuclear reactors. ¶ • Numerous studies by Wall Street and independent energy analysts estimate efficiency and ¶ renewable costs at an average of 6 cents per kilowatt hour, while the cost of electricity from ¶ nuclear reactors is estimated in the range of 12 to 20 cents per kWh. ¶ • The additional cost of building 100 new nuclear reactors, instead of pursuing a least cost ¶ efficiency-renewable strategy, would be in the range of $1.9-$4.4 trillion over the life the ¶ reactors. ¶ Whether the burden falls on ratepayers (in electricity bills) or taxpayers (in large subsidies), ¶ incurring excess costs of that magnitude would be a substantial burden on the national economy and ¶ add immensely to the cost of electricity and the cost of reducing carbon emissions.

SMRs especially

Lyman 2012 (Edwin, Senior Scientist in Global Security Program @ Union of Concerned Scientists, "Small Modular Reactor Panel Discussion," May 9, <http://cstsp.aaas.org/files/SummaryFinalSMR.pdf>)

Lyman was skeptical about the prospects for reductions in manufacturing cost resulting from the industrial learning process, and therefore argued that the US should expect smaller reactors to be more expensive per MW. Further, Lyman said that standard economics of scale point to SMRs having overnight capital costs of a factor of 2 to 3 higher per MW than large reactors.

Electricity price spikes crush every sector of the economy

Tverberg 2012 (Gail, Actuary in Oil and Climate Change, “High Prices Fuel Syndrome,” September 26, http://ourfiniteworld.com/2012/09/26/high-priced-fuel-syndrome/)

While oil is the biggest culprit in high-priced fuel syndrome, high-priced fuels of other sorts can play a role as well. Natural gas is recently high-priced in Europe and Japan, but not the USA. The higher natural gas price contributes to a higher average energy cost level for these countries. High-priced renewables, such as off-shore wind and solar photovoltaic, can be expected to act in a similar fashion, because they add to the price challenge customers face. At this point, Europe is hardest-hit by high-priced fuel syndrome. In part this is because Europe is a big importer of both oil and gas, and both are high-priced. European countries have also encouraged the use of high-priced renewables, adding to their difficulties. While many people have laughed at the issue of the world “running out of oil” (or natural gas, or some other substitute fuel), it seems to me that they have basically missed the point. There is always lots of fuel in the ground, or available through devices we create that produce “renewable” fuel. The major issue is that the fuel becomes too expensive for the economy to afford. The United States, Europe, and Japan were industrialized back when fuels were cheap, in the pre-1972 era (Figure 1, above). The cost structure of government welfare programs (such as Social Security, Medicare, unemployment) also assume that the economy will continue as it did with low-priced fuels. Substituting ever more-expensive fuels can be expected to push a country toward economic contraction, reduction in programs that the economy can no longer afford, and the symptoms listed above. When companies begin extracting oil (or natural gas, or coal), they start with the easiest, cheapest-to-extract first. In Figure 2, oil (or natural gas or coal) extraction starts at the top of the triangle, and gradually works down the triangle. As we require more and more fuel, we gradually seek out less-desirable sources of fuels. These fuels tend to be slower to extract, and are more expensive for what we get. They are often more polluting as well. Oil is the fuel that we recently have had a problem with easy-to-extract supply running low. We had a somewhat similar problem in the mid 1970s and early 1980s. At that point there was still plenty of cheap oil left in areas where we had not yet drilled (Alaska, North Sea and Mexico, for example), so the problem was temporary, lasting only until we could drill more oil. This time, the problem seems to be permanent. The chief executives of oil companies Total and Shell have been quoted as saying, “The days of so-called ‘easy oil’ are over, making it harder to meet demand without complicated and expensive projects.”([Voss, 2007](http://www.bloomberg.com/apps/news?pid=newsarchive&sid=aH57.uZe.sAI)). Examples of such expensive-to-extract oil include deep-water oil and tight oil that must be “fracked”. The fact that the cheap oil is mostly gone is the major reason why oil prices are higher than they were five or ten years ago. If oil prices had not risen, it is likely that the amount of oil extracted each year would be declining. There are alternative fuels such as ethanol and biodiesel, but they also tend to be expensive. Natural gas and coal aren’t immediate substitutes for oil. For example, they won’t act as fuels in most of today’s cars, trucks and airplanes. While there are long-term possibilities for substitution, the high-priced fuel syndrome is today’s problem, not a future problem. Rising Fuel Costs Cause the Economy to Contract There are a number of ways rising fuel costs can cause the economy to contract. The problem is that consumers’ incomes don’t rise, just because oil prices rise. If consumers are required to pay more for a necessity, they will cut back on discretionary goods and services. A few examples: Food prices. If oil prices rise, the price of food tends to rise as well, because oil is used in many ways in producing food: cultivation of fields, planting fields, chemical sprays (herbicides, pesticides), transporting soil amendments, harvesting fields, and transporting food to market. Oil prices are monthly average Brent Oil spot prices, as published by the US Energy Information Administration. Low-income customers tend to be disproportionately affected by rising food prices. They especially tend to cut back on discretionary spending, such as buying a car or going out to a restaurant, in order to be able to afford enough food. As a result, workers in discretionary industries are laid off. Commuting cost. If oil cost rises, the price of auto travel rises. Some auto travel, particularly commuting, is a necessity. Consumers, particularly lower-income consumers, tend to cut back on discretionary spending, such as vacation trips, to afford essential trips. Businesses. Businesses are affected in multiple ways by rising oil prices. First, businesses in discretionary industries find that their “unit-sales” are down, because customers are spending more on food and commuting, as a result, need to cut back elsewhere. Lower unit-sales are likely to lead to lay-offs. In many instances, businesses also use oil directly in the products they sell. For example, airlines use jet fuel. If oil prices rise, they have they either face lower profits, or need to raise prices to recoup their higher costs. This type of price increase further stresses customers’ budgets. Electricity. While the current US problem is oil prices, rising electricity prices would be expected to have a similar effect. Every business today uses electricity in various ways–electric lights, running computers, running elevators, operating tools of various sorts. If electricity costs rise because of higher natural gas prices or because of greater renewable surcharges, it will raise the cost of the product produced. Businesses again have the choice of raising the price to consumers, or facing declining profits. If they raise prices, they will be less competitive with suppliers from other countries, who may not be facing rising electricity costs, if their source of electricity (perhaps coal or nuclear) is not rising in price as fast. If electricity prices rise, consumers’ budgets will be stressed in a similar way to the way that they are stressed by rising oil prices. This, too, can be expected to lead to a cutback in discretionary expenditures. Follow-on effects. Laid-off workers may move in with relatives and cut back on driving to save on costs. This helps reduce demand for both homes and automobiles. With less demand for homes, housing prices may decline, especially in parts of the country with significant layoffs and plentiful housing supply. Laid-off workers may default on loans, creating financial distress for banks. Even people who still have jobs may find the hours they work reduced, so that their take-home pay is lower. They too may cut back on discretionary expenditures. Impact on Governments Governments suffering from high-priced energy syndrome can expect a number of negative impacts: 1. Laid-off workers expect to collect unemployment benefits. If there are other kinds of benefits that they might collect under some other program (disability, retirement, low-income assistance), they will want them as well. 2. If citizens are working fewer hours or laid off, the amount of taxes they pay is lower. 3. Banks and other industries are likely to need bailing out, as borrowers default on loans. 4. The government will be faced with direct increases in costs, because the government uses oil to fuel its autos and jets. 5. The government will face increasing costs on products it buys that use oil, such as asphalt for highway projects. 6. Local governments may face reduced tax revenue because of declining home and business property values. Figure 4 below shows US Federal Government Income and Outlays, in recent years: It is clear from Figure 4 that income had dropped at the same time outlay has risen. Even though the crisis is supposedly past, there is still a huge gap between income and outlays. Outlays in recent years are higher than would be expected based on pre 2005 trends, while revenues are lower than would be expected. Revenue would need to be more than 50% higher, to match outgo, for 2009 through 2012 fiscal years. The amounts shown in Figure 4 are consolidated, so include programs such as Social Security and Medicare, besides “on budget” spending. How many readers could afford to contribute 50% more than they currently pay for the sum of (Federal Income Taxes + Social Security + Medicare funding)? If the government were to actually raise taxes this much, there would be a huge new round of lay-offs, because consumers would find their after-tax income much reduced, leading to even more cuts in discretionary spending. Needless to say, the US government will do everything in its power to cover up its problems. In a later section, we will discuss how this huge deficit is being hidden. Note that the only years during which US Federal Government income exceeded outgo in Figure 4 are 1998 through 2001. These years approximately coincide with the time period when historical oil prices were at the lowest level in recent years (Figure 5, below).

### Off

#### Text: The United States federal government should fully fund and support international cooperation on the research and deployment of atmospheric aerosol injection and carbon air capture and storage with the goal of stabilizing global climate change at pre-industrial levels by 2050. Support for international cooperation should include compensation for parties harmed by geoengineering.

#### Research funding causes a cooperative international expansion of geoengineering.

Brand 9—Lifetime environmentalist, President of the Long Now Foundation and author of the Whole Earth Catalog which won the National Book award in 1972, Stewart, Whole Earth Discipline, pg 294-5

Because the cost of some geoengineering schemes is so low, Victor predicts, "A lone Greenfinger, self-appointed protector of the planet and working with a small fraction of the Gates bank account, could force a lot of geoengineering on his own." The way to head off unilateral geoengi­neering and premature treaties, Victor suggests, is with a growing body of norms rather than rules:

Meaningful norms are not crafted from thin air. They can have effect if they make sense to pivotal players and when they become socialized through practice. . . . Useful norms could arise through an intensive process of research and assessment that is probably best organized by the academies of sciences in the few countries with the potential to geoengineer. . . .

Most likely . . . is that the impacts of global climate change will have reached such a nasty state by the time societies deploy large-scale geoengineering that some side effects will be tolerated. The . . . systems they deploy will not be a silver bullet but rather many interventions deployed in tandem—one to focus on the central disease and others to fix the ancillary harms.

To my mind, a useful role for Greenfinger entrepreneurs might be to jump-start serious geoengineering research while national academies of science are spending years making up their minds to act. Then the privately funded researchers could bring real data to the "transnational assessment process," where the norms and best practices emerge. This is a planetary hack we're talking about. It has to be totally transparent and highly collaborative. Everyone's first preference is to not deploy it at all, but if it has to be used, it must be done effectively and minimally, and if possible, for a limited period. Like abortion, geoengineering should be "safe, legal, and rare."

That still leaves the question of who runs things—"whose hands will be allowed on the thermostat," as David Victor puts it. The task can be divided between the operators and an oversight body. In one previous piece of planet craft—the total eradication of smallpox in the 1970s—the World Health Organization provided oversight and funding, and the Smallpox Eradication Unit, led by Donald Henderson, did the work.

In Victor's formulation, norms and leadership for geoengineering will emerge from an intensifying sequence of conferences, research projects, data sharing, and brainstorming. The most effective early players will determine the play, and funding will determine the pace. Geoengineering is government-scale infrastructure; it will need government-scale money. Once one nation commits, I suspect, other nations will join in, lest they be left out. If China says, "We're going to geoengineer," the United States, Russia, the European Union, Japan, Brazil, and India are not going to say, "Fine, let us know how it works out." They'll start their own programs. With luck, an ad hoc standards-setting body similar to the Internet Engi­neering Task Force ("rough consensus and running code") will emerge. That kind of governance was required in order to have one universal Inter­net. The planet's one universal climate requires something similar.

#### Geo-engineering solves warming.

Lenton and Vaughan 9—T . M. Lenton, School of Environmental Sciences, University of East Anglia, and N. E. Vaughan, Tyndall Centre for Climate Change Research, UK, The radiative forcing potential of different climate geoengineering options, Atmos. Chem. Phys., 9, 5539–5561, 2009

Abstract. Climate geoengineering proposals seek to rectify the Earth’s current and potential future radiative imbalance, either by reducing the absorption of incoming solar (shortwave) radiation, or by removing CO2 from the atmosphere and transferring it to long-lived reservoirs, thus increasing outgoing longwave radiation. A fundamental criterion for evaluating geoengineering options is their climate cooling effectiveness, which we quantify here in terms of radiative forcing potential. We use a simple analytical approach, based on energy balance considerations and pulse response functions for the decay of CO2 perturbations. This aids transparency compared to calculations with complex numerical models, but is not intended to be deﬁnitive. It allows us to compare the relative effectiveness of a range of proposals. We consider geoengineering options as additional to large reductions in CO2 emissions. By 2050, some land carbon cycle geoengineering options could be of comparable magnitude to mitigation “wedges”, but only stratospheric aerosol injections, albedo enhancement of marine stratocumulus clouds, or sunshades in space have the potential to cool the climate back toward its pre-industrial state. Strong mitigation, combined with global-scale air capture and storage, afforestation, and bio-char production, i.e. enhanced CO2 sinks, might be able to bring CO2 back to its pre-industrial level by 2100, thus removing the need for other geoengineering. Alternatively, strong mitigation stabilising CO2 at 500 ppm, combined with geoengineered increases in the albedo of marine stratiform clouds, grasslands, croplands and human settlements might achieve a patchy cancellation of radiative forcing. Ocean fertilisation options are only worthwhile if sustained on a millennial timescale and phosphorus addition may have greater long-term potential than iron or nitrogen fertilisation. Enhancing ocean upwelling or downwelling have trivial effects on any meaningful timescale. Our approach provides a common framework for the evaluation of climate geoengineering proposals, and our results should help inform the prioritisation of further research into them.

### Off

Immigration Reform will pass—STRONG bipartisan support but drawn out and contentious debates are still to come—

Graham 2-7-13. DAVID A. GRAHAM - David Graham is an associate editor at The Atlantic, where he writes and edits for the Politics Channel. He previously reported for Newsweek, The Wall Street Journal, and The National. “Why Immigration-Reform Advocates Feel Good About Their Chances” [http://www.theatlantic.com/politics/archive/2013/02/why-immigration-reform-advocates-feel-good-about-their-chances/272977/]

The way John McCain and Michael Bennet talk about it, you'd be surprised immigration reform hasn't passed already.

"We have the opportunity to pass a broad-based bill that deals not just with one problem or two problem but takes on the entire of array in ways this touches our economy," said Bennet, a Democratic U.S. senator from Colorado, at an Atlantic conference in Washington Thursday. (Bennet is the brother of Atlantic Editor in Chief James Bennet.) "I do think you've got two parties that've got reasons to get this done."

And McCain, as usual, was colorful and blunt. A veteran of several failed attempts at reform, he offered one big explanation for why this time would be different.

"The climate has changed, American opinion has changed, elections have changed ... and I'm working with people who are effective," he said. "Chuck Schumer is effective. I hate him! But he's effective."

Of course, there's more to it, especially for Republicans like McCain, who along with Bennet is a member of the "Gang of Eight" senators working on a bipartisan proposal. The Arizonan pinpointed three reasons this is the time to get reform done. One is simple political math: As many Republicans seem to be realizing, the GOP will find it harder and harder to win elections if it continues to alienate Latino voters. A second is technological, he said, repeatedly citing drones and other technological advances developed to fight the wars in Iraq and Afghanistan as useful tools for policing the border with Mexico more effectively.

But much of it comes down to fairness, he concluded.

"Can we leave 11 million people in the shadows forever?" McCain asked, referring to the estimated number of illegal immigrants in the country. "The people that wash our dishes, cut our lawns, take care of our children -- is it right to leave them in the shadows forever? I don't think so."

Intriguingly, the two Democratic senators who bookended McCain's appearance -- Bennet and Minnesota's Amy Klobuchar -- offered economic rationales for reform, while the Republican made the compassionate case. But what's interesting is how views often associated with one party or the other seem to have been pushed aside, if not totally dispensed with. Bennet said it was reasonable to expect immigrants to learn English, and he said it was fine to make legislation contingent upon border security as long as employee verification, the standard Democratic priority, was part of a comprehensive bill. Bennet would offer only oblique criticism of GOP hardliners like David Vitter and Ted Cruz, saying, "There are some people that are better at putting themselves in other people's shoes that others."

Meanwhile, the occasionally cranky McCain was all smiles and jokes, with praise for both Klobuchar and Bennet; he saved his fire for budgetary matters. Asked about the sequester -- which he voted for -- he said, "It's insane, and it's unacceptable." And he criticized his 2008 rival Barack Obama's campaign-style strategy of barnstorming the country to drum up grassroots backing for his side. The real solution, McCain said, was to invite legislators to the White House to hash out a compromise. "There's no point in going out and giving another speech."

There should be no illusion that the road forward on immigration reform will be smooth. Panelists identified two big ones. First is the already-cliched "path to citizenship" for illegal immigrants, which McCain pointed out was likely to disappoint some advocates -- it won't be a walk in the park. The second sticking point is likely to be a guest-worker program. While lawmakers in both parties seem to agree that the country should lift caps on visas for highly skilled workers, the fate of agricultural and other low-skill workers seems certain to provoke acrimonious debate.

Political capital is key to RESOLVING these fights and getting it passed—

Foley 1-15 Elise is a writer @ Huff Post Politics. “Obama Gears Up For Immigration Reform Push In Second Term,” 2013, http://www.huffingtonpost.com/2013/01/15/obama-immigration-reform\_n\_2463388.html

Obama has repeatedly said he will push hard for immigration reform in his second term, and administration officials have said that other contentious legislative initiatives -- including gun control and the debt ceiling -- won't be allowed to get in the way. At least at first glance, he seems to have politics on his side. GOP lawmakers are entering -- or, in some cases, re-entering -- the immigration debate in the wake of disastrous results for their party's presidential nominee with Latino voters, who support reform by large measures. Based on those new political realities, "it would be a suicidal impulse for Republicans in Congress to continue to block [reform]," David Axelrod, a longtime adviser to the president, told The Huffington Post.¶ Now there's the question of how Obama gets there. While confrontation might work with Republicans on other issues -- the debt ceiling, for example -- the consensus is that the GOP is serious enough about reform that the president can, and must, play the role of broker and statesman to get a deal.¶ It starts with a lesson from his first term. Republicans have demanded that the border be secured first, before other elements of immigration reform. Yet the administration has been by many measures the strictest ever on immigration enforcement, and devotes massive sums to policing the borders. The White House has met many of the desired metrics for border security, although there is always more to be done, but Republicans are still calling for more before they will consider reform. Enforcing the border, but not sufficiently touting its record of doing so, the White House has learned, won't be enough to win over Republicans.¶ In a briefing with The Huffington Post, a senior administration official said the White House believes it has met enforcement goals and must now move to a comprehensive solution. The administration is highly skeptical of claims from Republicans that immigration reform can or should be done in a piecemeal fashion. Going down that road, the White House worries, could result in passage of the less politically complicated pieces, such as an enforcement mechanism and high-skilled worker visas, while leaving out more contentious items such as a pathway to citizenship for undocumented immigrants.¶ "Enforcement is certainly part of the picture," the official said. "But if you go back and look at the 2006 and 2007 bills, if you go back and look at John McCain's 10-point 'This is what I've got to get done before I'm prepared to talk about immigration,' and then you look at what we're actually doing, it's like 'check, check, check.' We're there. The border is as secure as it's been in a generation or two, so it's really time."¶ One key in the second term, advocates say, will be convincing skeptics such as Republican Sen. John Cornyn of Texas that the Obama administration held up its end of the bargain by proving a commitment to enforcement. The White House also needs to convince GOP lawmakers that there's support from their constituents for immigration reform, which could be aided by conservative evangelical leaders and members of the business community who are pushing for a bill.¶ Immigrant advocates want more targeted deportations that focus on criminals, while opponents of comprehensive immigration reform say there's too little enforcement and not enough assurances that reform wouldn't be followed by another wave of unauthorized immigration. The Obama administration has made some progress on both fronts, but some advocates worry that the president hasn't done enough to emphasize it. The latest deportation figures were released in the ultimate Friday news dump: mid-afternoon Friday on Dec. 21, a prime travel time four days before Christmas.¶ Last week, the enforcement-is-working argument was bolstered by a report from the nonpartisan Migration Policy Institute, which found that the government is pouring more money into its immigration agencies than the other federal law-enforcement efforts combined. There are some clear metrics to point to on the border in particular, and Doris Meissner, an author of the report and a former commissioner of the U.S. Immigration and Naturalization Service, said she hopes putting out more information can add to the immigration debate.¶ "I've been surprised, frankly, that the administration hasn't done more to lay out its record," she said, adding the administration has kept many of its metrics under wraps.¶ There are already lawmakers working on a broad agreement. Eight senators, coined the gang of eight, are working on a bipartisan immigration bill. It's still in its early stages, but nonmembers of the "gang," such as Sen. Marco Rubio (R-Fla.) are also talking about reform.¶ It's still unclear what exact role the president will play, but sources say he does plan to lead on the issue. Rep. Zoe Lofgren (D-Calif.), the top Democrat on the House immigration subcommittee, said the White House seems sensitive to the fact that Republicans and Democrats need to work out the issue in Congress -- no one is expecting a fiscal cliff-style arrangement jammed by leadership -- while keeping the president heavily involved.

CIR is key to food security and ag competitiveness

ACIR 07 THE AGRICULTURE COALITION FOR IMMIGRATION REFORM, December 4, 2007, http://www.aila.org/content/fileviewer.aspx?docid=24034&linkid=169473

Dear Member of Congress: The Agriculture Coalition for Immigration Reform (ACIR) is deeply concerned with pending immigration enforcement legislation known as the ‘Secure America Through Verification and Enforcement Act of 2007' or ‘SAVE Act’ (H.R.4088 and S.2368). While these bills seek to address the worthy goal of stricter immigration law enforcement, they fail to take a comprehensive approach to solving the immigration problem. History shows that a one dimensional approach to the nation’s immigration problem is doomed to fail. Enforcement alone, without providing a viable means to obtain a legal workforce to sustain economic growth is a formula for disaster. Agriculture best illustrates this point. Agricultural industries that need considerable labor in order to function include the fruit and vegetable, dairy and livestock, nursery, greenhouse, and Christmas tree sectors. Localized labor shortages have resulted in actual crop loss in various parts of the country. More broadly, producers are making decisions to scale back production, limit expansion, and leave many critical tasks unfulfilled. Continued labor shortages could force more producers to shift production out of the U.S., thus stressing already taxed food and import safety systems. Farm lenders are becoming increasingly concerned about the stability of affected industries. This problem is aggravated by the nearly universal acknowledgement that the current H-2A agricultural guest worker program does not work. Based on government statistics and other evidence, roughly 80 percent of the farm labor force in the United States is foreign born, and a significant majority of that labor force is believed to be improperly authorized. The bills’ imposition of mandatory electronic employment eligibility verification will screen out the farm labor force without providing access to legal workers. Careful study of farm labor force demographics and trends indicates that there is not a replacement domestic workforce available to fill these jobs. This feature alone will result in chaos unless combined with labor-stabilizing reforms. Continued failure by Congress to act to address this situation in a comprehensive fashion is placing in jeopardy U.S. food security and global competitiveness. Furthermore, congressional inaction threatens the livelihoods of millions of Americans whose jobs exist because laborintensive agricultural production is occurring in America. If production is forced to move, most of the upstream and downstream jobs will disappear as well. The Coalition cannot defend of the broken status quo. We support well-managed borders and a rational legal system. We have worked for years to develop popular bipartisan legislation that would stabilize the existing experienced farm workforce and provide an orderly transition to wider reliance on a legal agricultural worker program that provides a fair balance of employer and employee rights and protections. We respectfully urge you to oppose S.2368, H.R.4088, or any other bills that would impose employment-based immigration enforcement in isolation from equally important reforms that would provide for a stable and legal farm labor force.

That solves extinction

Lugar 04 (Richard G., former U.S. Senator – Indiana and Former Chair – Senate Foreign Relations Committee, “Plant Power”, Our Planet, 14(3), http://www.unep.org/ourplanet/imgversn/143/lugar.html)

In a world confronted by global terrorism, turmoil in the Middle East, burgeoning nuclear threats and other crises, it is easy to lose sight of the long-range challenges. But we do so at our peril. One of the most daunting of them is meeting the world’s need for food and energy in this century. At stake is not only preventing starvation and saving the environment, but also world peace and security. History tells us that states may go to war over access to resources, and that poverty and famine have often bred fanaticism and terrorism. Working to feed the world will minimize factors that contribute to global instability and the proliferation of weapons of mass destruction. With the world population expected to grow from 6 billion people today to 9 billion by mid-century, the demand for affordable food will increase well beyond current international production levels. People in rapidly developing nations will have the means greatly to improve their standard of living and caloric intake. Inevitably, that means eating more meat. This will raise demand for feed grain at the same time that the growing world population will need vastly more basic food to eat. Complicating a solution to this problem is a dynamic that must be better understood in the West: developing countries often use limited arable land to expand cities to house their growing populations. As good land disappears, people destroy timber resources and even rainforests as they try to create more arable land to feed themselves. The long-term environmental consequences could be disastrous for the entire globe. Productivity revolution To meet the expected demand for food over the next 50 years, we in the United States will have to grow roughly three times more food on the land we have. That’s a tall order. My farm in Marion County, Indiana, for example, yields on average 8.3 to 8.6 tonnes of corn per hectare – typical for a farm in central Indiana. To triple our production by 2050, we will have to produce an annual average of 25 tonnes per hectare. Can we possibly boost output that much? Well, it’s been done before. Advances in the use of fertilizer and water, improved machinery and better tilling techniques combined to generate a threefold increase in yields since 1935 – on our farm back then, my dad produced 2.8 to 3 tonnes per hectare. Much US agriculture has seen similar increases. But of course there is no guarantee that we can achieve those results again. Given the urgency of expanding food production to meet world demand, we must invest much more in scientific research and target that money toward projects that promise to have significant national and global impact. For the United States, that will mean a major shift in the way we conduct and fund agricultural science. Fundamental research will generate the innovations that will be necessary to feed the world. The United States can take a leading position in a productivity revolution. And our success at increasing food production may play a decisive humanitarian role in the survival of billions of people and the health of our planet.

### Warming

Robust analysis proves nuclear power can’t mitigate climate change -- climactic effects hinder reactor effectiveness -- their authors rely on a simplistic understanding of nuclear power.

Kopytko & Perkins, ‘11

[Natalie, PhD Researcher in the Environment Department, University of York, John, former chief economist at a major international consulting firm, advised the World Bank, United Nations, IMF, U.S. Treasury Department, Fortune 500 corporations, and countries in Africa, Asia, Latin America, and the Middle East, his books on economics and geo-politics have sold more than 1 million copies, spent many months on the New York Times and other bestseller lists, and are published in over 30 languages, “Climate Change, Nuclear Power, and the Adaptation-Mitigation Dilemma,” Energy Policy, [Volume 39, Issue 1](http://www.sciencedirect.com/science/journal/03014215/39/1), January 2011, Pages 318–333, Science Direct]

Numerous analysts from industry, commerce, government, academia, andnon-profits have promoted nuclear power as an appropriate mitigation for climate change. In essentially all cases the logic of the proposal is simple and appealing: • climate change results primarily from burning fossil fuels, which releases carbon dioxide to the atmosphere; • nuclear power yields no carbon emissions as electricity is generated; • therefore nuclear power is an appropriate, indeed perhaps ideal, mitigation for climate change. Appealing as this logic model appears, it unfortunately ignores a wide range of other issues, each of which impinges upon the quest for reduced carbon emissions. Thus it is too simplistic and seriously misleads. The argument leads to easy conclusions about the suitability of nuclear power to temper climate change when in fact a more robust analysis suggests the opposite conclusion. Perhaps the single most important factor undermining the simple logic model stems from the fact that nuclear reactors require enormous amounts of water to cool or condense the coolant which transfers heat from the core to the turbines and cools the reactor core. This is why nuclear power plants are located near substantial amounts of water: the ocean, large lakes, and big rivers. If climate change affects the temperature, quality, or quantity of water, then existing nuclear power plants may be adversely affected. This paper examines several ways in which climate change has already affected water in ways that create problems for existing nuclear power plants. Specifically it examines the effects of sea level rise on nine existing coastal sites in the USA and the consequences of changes in water for inland reactors in France. Geographic Information Systems (GIS) models of sea level rise and a review of existing reports and published literature suggest that numerous existing plants have been or may be adversely affected by climate change. We call the set of interactions among climate change, water, and nuclear power the “adaptation-mitigation dilemma.” This term signals that existing and projected climate change threatens the operations and safety of existing plants and poses other challenges to efforts to adapt to climate change. Thus existing nuclear power plants may not represent a good technology for mitigation of climate change. A separate question concerns the potential of new nuclear power plants to avoid the problems with water we identify in this paper. Maybe it’s possible to build new plants that don’t suffer the syndrome of problems in the adaptation-mitigation dilemma. For reasons explained in the conclusion of this paper, however, we believe that it may be quite difficult to fully avoid the dilemmas identified here. At the very least, avoiding these challenges will add costs and possibly increase the risks of nuclear power, both of which are already severe handicaps for this technology. This paper acknowledges that sharply differing opinions abound on what, if any, role is appropriate for nuclear power in the debates about climate change. It seeks, however, to shift the analysis and debates about nuclear power away from “Is it a good, safe, cost-effective way to reduce carbon emissions?” to “What can we learn about current nuclear power plants and how they have been or probably will be affected by the climate change that has already occurred?” With this shift comes the potential for analysis that is less fought with ideological baggage that hinders a clear understanding of nuclear power.

Nuclear can’t solve warming.

Ferguson 7— fellow for science and technology at the Council on Foreign Relations. He is also an adjunct assistant professor in the School of Foreign Service at Georgetown University and an adjunct lecturer at the Johns Hopkins University, Charles, Nuclear Energy: Balancing Benefits and Risks, Council on Foreign Relations, April

Nuclear energy provides about 16 percent of the globe’s electricity. In comparison, fossil fuels, which contribute to global warming through emissions of greenhouse gases, generate about 66 percent of the world’s electricity. Global electricity demand is projected to double by 2030 and triple by 2050, based on business-as-usual usage. Much of this demand growth will occur in the developing world. Decisions leaders make today about where to invest in various energy sourceswill have a lasting effect because the life of most power plants extends beyond forty years.

How much could global nuclear energy consumption grow over the next four decades? A 2003 Massachusetts Institute of Technology study posited a base growth scenario of one thousand gigawatts of nuclear capacity by 2050. 5 (A one-gigawatt nuclear reactor can power a U.S. city containing about a half-million people, comparable to the size of Washington, DC.) In comparison, today the world has about370 gigawatts of installed nuclear capacity. The almost threefold increase in nuclear power by 2050 would only increase the global proportion of nuclear energy use from 16 percent to about 20 percent because of the projected increased demands for electricity. As a consequence, this modest increase in contribution from nuclear energy alone would not decrease the emissions of greenhouse gases. In the absence of regulating carbon, reducing energy demand, and expanding no- and low-carbon energy sources, those emissions would increase because of greater use of fossil fuels to meet the projected demand for electricity as well as heating and transportation fuels.

How much nuclear energy would be needed to maintain global carbon dioxide emissions at the year 2000 level? Reaching this goal might head off many of the damaging consequences of climate change. The Institute for Energyand Environmental Research (IEER) has recently estimated that this scenario would require between 1,900 and 3,300 gigawatts of nuclear capacity depending on differing projections of alternative energy usage and adoption of energy efficiencies. 6 Under this very ambitious scenario, each new reactor would have to come online at a rate of less than one per week over the next four decades. As a practical matter, building reactors at this rapid pace would initially tend to drive up unit costs and, thus, scare off investors. For example, there are currently only a few companies in the world that can make reactor-quality steel, concrete, and other vital parts. Moreover, a rush to build would aggravate existing shortages of skilled workers to construct the reactors, qualified engineers to run the power plants, and inspectors to ensure safe operations.

SMRs are not a solution for global warming

Makhijani & Boyd 2010 (IEER Institute of energy and environmental research <http://ieer.org/wp/wp-content/uploads/2010/09/small-modular-reactors2010.pdf>) JA

¶ Efficiency and most renewable technologies ¶ ¶ are already cheaper than new large reactors. ¶ ¶ The long time—a decade or more—that it ¶ ¶ will take to certify SMRs will do little or nothing to help with the global warming problem ¶ ¶ and will actually complicate current efforts ¶ ¶ underway. For example, the current schedule for commercializing the above-ground ¶ ¶ sodium cooled reactor in Japan extends to ¶ ¶ 2050, making it irrelevant to addressing the ¶ ¶ climate problem. Relying on assurances that ¶ ¶ SMRs will be cheap is contrary to the experience about economies of scale and is likely ¶ ¶ to waste time and money, while creating new ¶ ¶ safety and proliferation risks, as well as new ¶ ¶ waste disposal problems.

#### Warming will be small.

Nature 12—Warming, but not as much, Nature 481, 413 (26 January 2012), http://www.nature.com/nature/journal/v481/n7382/full/481413e.html?WT.ec\_id=NATURE-20120126

The climate system may be less sensitive to greenhouse-gas warming than many models have predicted.

Nathan Gillett and his co-workers at Environment Canada in Victoria, British Columbia, analysed how well the latest Canadian Earth System Model tracked temperature changes attributable to volcanoes, man-made aerosols and rising greenhouse-gas emissions. They adjusted the model using temperature records from 1851 to 2010 — 60 years of data more than most previous analyses. The model predicted a short-term increase of 1.3–1.8 °C for a doubling of atmospheric carbon dioxide levels, which is low in the range of estimates from previous forecasts.

#### No impact to warming.

Stampf 7—Olaf Stampf, Not the End of the World as We Know It, Der Spiegel, 5-7, http://www.spiegel.de/international/germany/0,1518,481684,00.html

The truth is probably somewhere between these two extremes. Climate change will undoubtedly have losers -- but it will also have winners. There will be a reshuffling of climate zones on earth. And there is something else that we can already say with certainty: The end of the world isn't coming any time soon.

Largely unnoticed by the public, climate researchers are currently embroiled in their own struggle over who owns the truth. While some have always seen themselves as environmental activists aiming to shake humanity out of its complacency, others argue for a calmer and more rational approach to the unavoidable.

One member of the levelheaded camp is Hans von Storch, 57, a prominent climate researcher who is director of the Institute for Coastal Research at the GKSS Research Center in Geesthacht in northern Germany. "We have to take away people's fear of climate change," Storch told DER SPIEGEL in a recent interview. "Unfortunately many scientists see themselves too much as priests whose job it is to preach moralistic sermons to people."

Keeping a cool head is a good idea because, for one thing, we can no longer completely prevent climate change. No matter how much governments try to reduce carbon dioxide emissions, it will only be possible to limit the rise in global temperatures to about 2 degrees Celsius (3.6 degrees Fahrenheit) by the end of the century. But even this moderate warming would likely have far fewer apocalyptic consequences than many a prophet of doom would have us believe.

For one thing, the more paleontologists and geologists study the history of the earth's climate, the more clearly do they recognize just how much temperatures have fluctuated in both directions in the past. Even major fluctuations appear to be completely natural phenomena.

Additionally, some environmentalists doubt that the large-scale extinction of animals and plants some have predicted will in fact come about. "A warmer climate helps promote species diversity," says Munich zoologist Josef Reichholf.

Also, more detailed simulations have allowed climate researchers to paint a considerably less dire picture than in the past -- gone is the talk of giant storms, the melting of the Antarctic ice shield and flooding of major cities.

Improved regionalized models also show that climate change can bring not only drawbacks, but also significant benefits, especially in northern regions of the world where it has been too cold and uncomfortable for human activity to flourish in the past. However it is still a taboo to express this idea in public.

For example, countries like Canada and Russia can look forward to better harvests and a blossoming tourism industry, and the only distress the Scandinavians will face is the guilty conscience that could come with benefiting from global warming.

Palm Trees in Germany

There is no doubt that there will be droughts in other parts of the world, especially in subtropical regions. But the widespread assumption that it is developing countries -- that is, the world's poor -- who will, as always, be the ones to suffer is incorrect. According to current predictions, precipitation in large parts of Africa will hardly decrease at all, except in the southern part of the continent. In fact, these same forecasts show the Sahel, traditionally a region beset by drought and famine, actually becoming wetter.

By contrast, some wealthy industrialized nations -- in fact, those principally responsible for climate change -- will likely face growing problems related to drought. The world's new drought zones lie in the southern United States and Australia, but also in Mediterranean countries like Spain, Italy and Greece.

All of this will lead to a major shift within Europe, potentially leading to tough times for southern Spain's mega-resorts and boom times for hotels along the North Sea and Baltic Sea coasts. While the bulk of summer vacationers will eventually lose interest in roasting on Spain's Costa del Sol, Mediterranean conditions could prevail between the German North Sea island of Sylt and Bavaria's Lake Starnberg. The last few weeks of spring in Germany offered a taste of what's to come, as sun-loving crowds packed Berlin's urban beach bars and Munich's beer gardens.

The predicted temperature increase of 3 degrees Celsius would mean that summers in Hamburg, not far from the North Sea coast, would be as warm as they are today in the southwestern city of Freiburg, while conditions in Freiburg would be more like those in Marseille today. Germany will undoubtedly be one of the beneficiaries of climate change. Perhaps palm trees will be growing on the island of Helgoland in the North Sea soon, and German citizens will be saving billions in heating costs -- which in turn would lead to a reduction in CO2 emissions.

But climate change will also have its drawbacks. While German summers will be less rainy, fall and winter rainfall in the country's north will increase by up to 30 percent -- and snow will be a thing of the past. Heavy downpours will also become more common. To avoid flooding, steps will have to be taken to provide better drainage for fields and farmlands, as well as to restore natural flood plains.

Meanwhile, the Kiel Institute for World Economics warns that higher temperatures could mean thousands of heat-related deaths every year. But the extrapolations that lead to this dire prediction are based on the mortality rate in the unusually hot summer of 2003, for which Germans were wholly unprepared. But if hot summer days do become the norm, people will simply adjust by taking siestas and installing air-conditioning.

The medical benefits of higher average temperatures have also been ignored. According to Richard Tol, an environmental economist, "warming temperatures will mean that in 2050 there will be about 40,000 fewer deaths in Germany attributable to cold-related illnesses like the flu.”

Another widespread fear about global warming -- that it will cause super-storms that could devastate towns and villages with unprecedented fury -- also appears to be unfounded. Current long-term simulations, at any rate, do not suggest that such a trend will in fact materialize.

"According to our computer model, neither the number nor intensity of storms is increasing," says Jochem Marotzke, director of the Hamburg-based Max Planck Institute for Meteorology, one of the world's leading climate research centers. "Only the boundaries of low-pressure zones are changing slightly, meaning that weather is becoming more severe in Scandinavia and less so in the Mediterranean."

According to another persistent greenhouse legend, massive flooding will strike major coastal cities, raising horrific scenarios of New York, London and Shanghai sinking into the tide. However this horror story is a relic of the late 1980s, when climate simulations were far less precise than they are today. At the time, some experts believed that the Antarctic ice shield could melt, which would in fact lead to a dramatic 60-meter (197-foot) rise in sea levels. The nuclear industry quickly seized upon and publicized the scenario, which it recognized as an argument in favor of its emissions-free power plants.

But it quickly became apparent that the horrific tale of a melting South Pole was nothing but fiction. The average temperature in the Antarctic is -30 degrees Celsius. Humanity cannot possibly burn enough oil and coal to melt this giant block of ice. On the contrary, current climate models suggest that the Antarctic will even increase in mass: Global warming will cause more water to evaporate, and part of that moisture will fall as snow over Antarctica, causing the ice shield to grow. As a result, the total rise in sea levels would in fact be reduced by about 5 cm (2 inches).

It's a different story in the warmer regions surrounding the North Pole. According to an American study published last week, the Arctic could be melting even faster than previously assumed. But because the Arctic sea ice already floats in the water, its melting will have virtually no effect on sea levels.

'We Still Have Enough Time to React'

Nevertheless, sea levels will rise worldwide as higher temperatures cause the water in the oceans to expand. In addition, more water will flow into the ocean with the gradual thawing of the Greenland ice sheet. All things considered, however, in the current IPCC report climatologists are predicting a rise in sea levels of only about 40 centimeters (16 inches) -- compared with the previous estimate of about one meter (more than three feet). A 40-centimeter rise in sea levels will hardly result in more catastrophic flooding. "We have more computer models and better ones today, and the prognoses have become more precise as a result," explains Peter Lemke of the Alfred Wegener Institute for Polar and Marine Research in the northern German port city of Bremerhaven.

Some researchers do, however, estimate that regional effects could produce an 80-centimeter (31-inch) rise in the sea level along Germany's North Sea coast. This will lead to higher storm surges -- a problem the local population, already accustomed to severe weather, could easily address by building taller dikes.

Another comforting factor -- especially for poorer countries like Bangladesh -- is that none of these changes will happen overnight, but gradually over several decades. "We still have enough time to react," says Storch.

In short, the longer researchers allow their supercomputers to crunch the numbers, the more does the expected deluge dissipate. A rise in sea levels of several meters could only occur if Greenland were largely ice-free, but this is something scientists don't expect to happen for at least a few more centuries or even millennia. This lengthy timeframe raises the question of whether the current prognoses are even reliable.

#### Warming is inevitable.

Gelbspan 7— American writer and activist. He has written two books relating to global warming, Ross, It’s too late to stop climate change, argues Ross Gelbspan — so what do we do now?, Grist, 12-11, http://grist.org/article/beyond-the-point-of-no-return/

But even assuming the wildest possible success of their initiatives — that humanity decided tomorrow to replace its coal- and oil-burning energy sources with noncarbon sources — it would still be too late to avert major climate disruptions. No national energy infrastructure can be transformed within a decade.

All these initiatives address only one part of the coming reality. They recall the kind of frenzied scrambling that is characteristic of trauma victims — a frantic focus on other issues, any other issues — that allows people to avoid the central take-home message of the trauma: in this case, the overwhelming power of inflamed nature.

Within the last two years, a number of leading scientists — including Rajendra Pachauri, head of the Intergovernmental Panel on Climate Change (IPCC), British ecologist James Lovelock, and NASA scientist James Hansen — have all declared that humanity is about to pass or already has passed a “tipping point” in terms of global warming. The IPCC, which reflects the findings of more than 2,000 scientists from over 100 countries, recently stated that it is “very unlikely” that we will avoid the coming era of “dangerous climate change.”

Plan eliminates aerosols—causes faster warming.

Lovelock 9—Consultant of NASA, former president of the [Marine Biological Association](http://en.wikipedia.org/wiki/Marine_Biological_Association), and  Honorary Visiting Fellow of [Green Templeton College, Oxford](http://en.wikipedia.org/wiki/Green_Templeton_College%2C_Oxford), James, The Vanishing Face of Gaia: A Final Warning: Enjoy it While You Can, 55-56

In 2004 two IPCC contributors, Peter Cox and Meinrat Andreae, raised the question: What happens to global warming if this pollution haze suddenly disappears? Their paper in Nature warned that if the haze disappeared, global heating would intensify, and dangerous change could be the consequence. In 2008, a group led by Peter Stott, from the Hadley Centre (part of the Meteorological Office), examined this phenomenon in a careful and well-drawn paper in the jour­nal Tellus: "global dimming," they revealed, is complex, even as a purely geophysical problem. According to their calculations the sudden removal of haze could lead to ei­ther a modest or a severe increase of heating. I now begin to see why my wise friend Robert Charlson is so loath to commit himself on pollution aerosols and climate change. Even so, there was little doubt among any of these distin­guished climate scientists that the present pollution haze reduces global heating, or that its sudden removal could have serious consequences. I suspect that we worry less about global heating than about a global economic crash, and forget that we could make both events happen together if we implemented an immediate, global 6o percent reduction of emissions. This would cause a rapid fall in fossil fuel consumption, and most of the particles that make the atmospheric aerosol would within weeks fall from the air. This would greatly simplify prediction and we could at last be fairly sure that global temperature would rise; the removal of the pollution aerosol would leave the gaseous greenhouse unobstructed and free at last to devastate what was left of the comfortable interglacial Earth. Yes, if we imple­mented in full the recommendations made at Bali within a year, far from stabilizing the climate, it could grow hot­ter not cooler. This is why I said in The Revenge of Gaia, "We live in a fool's climate and are damned whatever we do."

### Solvency

1.) Still tons of variables to be resolved -- SMRs can’t be operational for at least a decade.

King et al., ‘11

[Marcus, Research Analyst and Project Director at CNA Corporation's Center for Naval Analyses, LaVar Huntzinger, Thoi Nguyen, March, “Feasibility of Nuclear Power on U.S. Military Installations,” http://www.cna.org/sites/default/files/research/Nuclear%20Power%20on%20Military%20Installations%20D0023932%20A5.pdf]

Designs for small reactors are at various levels of technological readiness and some are about to begin the NRC licensing process, but none have been licensed or constructed yet. Consequently, there are a number of unresolved certification, licensing, and regulatory issues. The size of the emergency planning zone that should surround the reactor is an example of such an issue. Resolving these issues will take time and resources. NRC representatives have indicated that they expect these issues could be resolved by the middle of the decade and that a plant could be built and operating by about 2020

2.) The more of a departure from the status quo SMR reactors are, the longer licensing takes. Licensing takes DECADES.

O’ Connor ’11 (Dan O’Connor is a Policy Fellow in AEL’s New Energy Leaders Project and will be a regular contributor to the website, American Energy League, “Small Modular Reactors: Miracle, Mirage, or Between?”, <http://leadenergy.org/2011/01/small-modular-reactors-miracle-mirage-or-medium/>, January 4, 2011, LEQ)

Judging only by this promising activity, it is tempting to dub the SMR a miracle. But the majority of these diverse designs have yet to be demonstrated. In fact, the demonstration stage of the South African project, Pebble Bed Modular Reactor (a HTR), stalled and faded in 2010 after losing government funding due to lack of customer interest. The importance of demonstration, especially in the highly-regulated US industry, cannot be overstated. But even in the stages before the crucial demonstration step, skepticism over the SMR’s promises abounds. The ASME EnComm noted regulatory, financial, operational, and logistical challenges. Treading the uncharted waters of Lego-like power plant construction will not be easy. In a traditional plant, one reactor provides heat for one or a few steam turbines. In an SMR-based plant, each module drives one turbine with its own controls and operators. As such, few of the costs associated with these systems scale down with reactor capacity. The turbines do not come in a complimentary plug-and-play form either – they would have to be built on site. And while decentralization enables partial operation and online refueling, it also introduces the challenge of module co-operation, the need for numerous highly-trained operator personnel, and brand new reviews by the Nuclear Regulatory Commission (NRC). This goes without mentioning the urgent and increased need for a more dynamic national approach to waste storage. Licensing questions remain too. The one-time approval of a module before its mass production, bypassing a regulatory damper for each unit, is a highly-desirable advantage of SMR design. But if a utility would like to increase its capacity over two decades by incrementally adding more modules, will it face the choice between building licensed, though dated, technology or waiting again for a license to build with state of the art modules? Furthermore, as addressed in my past article, “Putting the Cart Before the Horse with Nuclear R&D” and its comments, the waiting time even for a traditional design license is considerable. With each new SMR innovation, from an individualized control room to coolant choice, the licensing duration increases by as much as a decade, pushing the vital demonstration step further away. Additional costs associated with these regulatory complications and non-scalable systems could combine to nullify the SMR’s affordability argument.

3.) No one takes the contract - can't compete with natural gas.

Biello 12—David, Small Reactors Make a Bid to Revive Nuclear Power, Scientific American, 4-19, http://www.scientificamerican.com/article.cfm?id=small-reactors-bid-to-revive-nuclear-power

Regardless of how cheap such small modular reactors may allow nuclear to be in future, it is unlikely to be as cheap as natural-gas-fired turbines in the present. In fact, low natural gas prices stalled the U.S. nuclear renaissance outside Georgia and South Carolina, long before the reactor meltdowns at Fukushima Daiichi in Japan. "Because of an unanticipated abundance of natural gas in the United States, nuclear energy, in general, is facing tough competition," noted an analysis of the prospects for small modular reactors from the University of Chicago published last November. The analysis also suggested that small reactors would be more expensive than large reactors on a per-megawatt basis until manufacturing in significant quantities has happened. "It [is] unlikely that SMRs will be commercialized without some form of government incentive."