CO2 Pipelines Neg Updates

AT: Inherency

Carbon taxes and cap-and-trade are highly unpopular.

Smith ’12, (Noah has been a physics major at Stanford, an academic editor in Japan, and (currently) a PhD candidate in economics at the University of Michigan. In the fall he will start as an assistant professor of finance at Stony Brook. At that point, he will commence solving all the problems of the world.), 05-06-2012, url: http://noahpinionblog.blogspot.com/2012/06/carbon-taxes-wont-work-heres-what-will.html.

Carbon taxes are politically infeasible in the U.S. A few people have tried to introduce carbon tax bills. **There has been essentially no interest.** This may be because there is no concentrated special-interest constituency for carbon taxes (the Pigou Club notwithstanding), or because politicians instinctively realize the existence of some of the other reasons I'm going to cite. Also note that the more well-known, **Obama-supported "cap-and-trade" idea also went nowhere fast.**

****A carbon tax is highly unpopular in the United States.****

Morey ‘9, **(**Jessica manages the State-Federal Partnership building project and directs CESA’s DOE Hydrogen Education project. In addition, Jessica acts as CEG’s liaison to the Sustainable Energy Finance Initiative (SEFI) of the United Nations Environment Programme (UNEP). She works with the Basel Agency for Sustainable Energy (BASE) on managing the UNEP-SEFI Public Finance Alliance, an international consortium of publicly backed funding agencies dedicated to building sustainable energy markets. She received her Bachelors in Environmental Engineering from Dartmouth College, a Masters in International Affairs from American University and a Masters in Sustainable Development from the UN University for Peace in Costa Rica.), 30-07-2009, url: http://climatelab.org/Carbon\_tax#ref\_7.

Carbon tax is politically unpopular in the United States. There are some politicians who are concerned with resistance from their constituencies and are worried that it would upset voters. Policy makers are also concerned that higher gas taxes would raise revenue but do little to curb pollution. On the other hand, the public is also worried the abuse of the tax revenue. Carbon Tax could become  a revenue grab by desperate governments, that they create artificial winners and losers in the economy and that, if they are not at least done in step with other countries, they will simply drive jobs and business offshore to cheaper locales.

Squo solves – a carbon tax, if passed, would push coal mining to China.

Smith ’12, (Noah has been a physics major at Stanford, an academic editor in Japan, and (currently) a PhD candidate in economics at the University of Michigan. In the fall he will start as an assistant professor of finance at Stony Brook. At that point, he will commence solving all the problems of the world.), 05-06-2012, url: http://noahpinionblog.blogspot.com/2012/06/carbon-taxes-wont-work-heres-what-will.html.

Carbon taxes are undermined by free trade. If you put a tax on carbon-emitting activity in the U.S., it'll raise the domestic price of (for example) coal. This will provide an incentive for U.S. coal miners to export their coal to other countries, especially China, as they are now trying to do. It will also provide an incentive for Americans to buy more imports from countries where it is still cheap to burn coal (e.g. China). In other words, if you tax the burning of American coal by American companies, you will increase the burning of American coal by Chinese companies, and the de facto burning of Chinese coal by American consumers. These effects will not completely cancel out the effect of a U.S. carbon tax, but they will work against it substantially. The only way to stop this would be to tax both carbon exports and the implied carbon content of imports. This would lead to big rises in tariffs. It is hard to imagine the Pigou Club, most of whose members support free trade, uniting around the import/export tariffs needed to make a U.S. carbon tax work. (Addendum: And you know what the U.S. can't tax? Cheap-carbon Chinese-made products replacing expensive-carbon U.S.-made products in global markets.)

Pushing the coal industry to China helps to solve for warming.

Walsh ’12, (Bryan Walsh is a senior writer for TIME magazine, covering energy and the environment—and also, occasionally, scary diseases. Previously Bryan was the Tokyo bureau chief for TIME, and reported from Hong Kong on health, the environment and the arts. He lives in Brooklyn.)

Some argue that if increasing demand in Asia pushes up global coal prices, it could actually help the environment by forcing more coal-burning countries to start looking for cheaper energy alternatives. In the U.S., higher coal prices could accelerate the switch from coal to natural gas, especially in parts of the Midwest that remain heavily dependent on coal.

China has already established CCS as a priority.

Jones ’12, Deputy Executive Director Ambassador, International Energy Agency, “Coal: Closer Look at CCS,” April 2012, url: smartgridresearch.org/.../**Coal**\_Closer\_Look\_at\_**CCS**\_May\_2012\_Zp.

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China has established CCS as a priority, especially considering that coal is the main form of electricity generation for the country, which opens on average one new coal fired plant a week. However, the country is in the developing stages of CCS use and technology, thus lacking significant regulations in the field.

Cap and trade won’t be passed – empirics and squo prove.

Dempsey & Brown ‘12, writers for the U.S. Senate Committee on Environmental Protections Works, 03-04-2012, url: http://epw.senate.gov/public/index.cfm?FuseAction=Minority.PressReleases&ContentRecord\_id=7a08e5ed-802a-23ad-4574-d44c5a29c35b&Region\_id=&Issue\_id=.

Washington, D.C. - Senator James Inhofe (R-Okla.), Ranking Member of the Senate Committee on Environment and Public Works, blasted President Obama’s remarks today at an AP luncheon in Washington, where he accused Republicans of environmental hypocrisy.  The President said, “Cap and trade was originally proposed by conservatives and Republicans as a market-based solution to solving environmental problems. Now, you’ve got the other party essentially saying ‘we shouldn’t even be thinking about environmental protection; Let’s gut the EPA.’” “Before President Obama goes around accusing Republicans of hypocrisy and disregarding environmental protection, he would be wise to remember that overwhelming bipartisan opposition has kept any global warming cap-and-trade legislation from reaching the Senate floor since June 2008, and it was soundly rejected by both Democrats and Republicans,” Senator Inhofe said. “Just how unpopular was his cap-and-trade approach? Remember, it was Senate Majority Leader Harry Reid who said, ‘We don’t use the word cap and trade…That’s something that’s been deleted from my dictionary,’ and as Senator Kerry was introducing his own global warming cap-and-trade bill, he claimed, ‘I don’t know what cap and trade means.’  Even President Obama heeded the Democrat pollsters’ advice to scratch using ‘cap-and-trade’ and ‘global warming’ during the debate because those terms had become toxic to the American public.  Yet President Obama can’t seem to let go.

AT: Solvency

Federal Government can’t exercise eminent domain – State Supreme Courts bar.

Property Rights Alliance ‘9, (Property Rights Alliance (PRA), an affiliate of Americans for Tax Reform, stands as an advocacy organization dedicated to the protection of physical and intellectual property rights, both domestically and internationally), “Eminent Domain/Regulatory Takings,” 2009, url: http://propertyrightsalliance.org/eminent-domain-regulatory-takings-a2909.

Probably the most commonly cited example of eminent domain abuse was the United States Supreme Court decision in Kelo v. City of New London (2005). The Court ruled that the government may use the power of eminent domain to expropriate property for private to private transfer under the ambiguous title of “economic development”. As a result of the Supreme Court’s ruling in Kelo, the government’s power of eminent domain has become almost limitless, providing victimized citizens with few means to protect their property. Four years later – after fighting residents and paying court fees – the Pfizer plant was ultimately abandoned, and now lies empty. Several states have independently passed legislation to limit their power to eminent domain, and the Supreme Courts of Illinois, Michigan, and Ohio have barred the practice under their state constitutions. In response to the nationally unpopular Kelo decision, 42 states either prohibited or curbed their ability to take land by eminent domain for reasons of economic development.

Government can’t exercise eminent domain – Florida Constitution bars.

Castle Coalition ‘7, (The Institute for Justice’s nationwide grassroots organization made up of homeowners and activists seeking to end eminent domain abuse), 2007, url: www.castlecoalition.org/pdf/publications/report.../50\_State\_Report.pdf.

In 2006, the Florida Legislature proved that it understood the public outcry caused by the Supreme Court’s abandonment of property rights. Florida created a legislative commission to study the use of eminent domain and ways of reining in abuse, then passed House Bill 1567 with an overwhelming majority. The new law signed by the governor requires localities to wait 10 years before transferring land taken by eminent domain from one owner to another—effectively eliminating condemnations for private commercial development. HB 1567 also forbids the use of eminent domain to eliminate so-called blight, instead requiring municipalities to use their police powers to address individual properties that actually pose a danger to public health or safety. Not content with mere statutory protections, the Florida Legislature also put a **constitutional amendment** on the November ballot so that the state’s citizens could make sure that these reforms could not easily be stripped away. The new amendment, which was approved in a landslide, requires a three-fifths majority in both legislative houses to grant exceptions to the state’s prohibition against using eminent domain for private use. Thanks to these sweeping reforms, Florida has gone from being among the worst eminent domain abuse offenders to offering some of the best protection in the nation for homes, businesses, and houses of worship that formerly could have been condemned for private development. HB 1567 and Florida’s new constitutional amendment should be models for other state legislatures. They prohibit takings for private benefit while still allowing the government to condemn property for traditional public uses such as roads, bridges, and government buildings.

The aff can’t fiat to have the state of Florida to change its constitution, because that would require a referendum, and doing so would allow the aff to fiat individual citizens. Cross-apply this argument to the states of Illinois, Michigan, and Ohio, as mentioned in the Property Rights Alliance ‘9 card.

CCS doesn’t work.

Macalister ’10, (Terry Macalister is energy editor of the Guardian. He has been employed at the paper and website for 12 years and previously worked for the Independent and other national titles), 04-25-10, url: http://www.guardian.co.uk/business/2010/apr/25/research-viabilty-carbon-capture-storage.

A new research paper from American academics is threatening to blow a hole in growing political support for carbon capture and storage as a weapon in the fight against global warming. The document from Houston University claims that governments wanting to use CCS have overestimated its value and says it would take a reservoir the size of a small US state to hold the CO2 produced by one power station. Previous modelling has hugely underestimated the space needed to store CO2 because it was based on the "totally erroneous" premise that the pressure feeding the carbon into the rock structures would be constant, argues Michael Economides, professor of chemical engineering at Houston, and his co-author Christene Ehlig-Economides, professor of energy engineering at Texas A&M University "It is like putting a bicycle pump up against a wall. It would be hard to inject CO2 into a closed system without eventually producing so much pressure that it fractured the rock and allowed the carbon to migrate to other zones and possibly escape to the surface," Economides said. The paper concludes that CCS "is not a practical means to provide any substantive reduction in CO2 emissions, although it has been repeatedly presented as such by others." The report has come at a critical time when British and other governments worldwide have started to fast-track a series of CCS prototype schemes as a way of removing carbon from the atmosphere and helping with climate change.

AT: Eminent Domain

States can exercise eminent domain.

Larson ’12, (Aaron Larson is an honors graduate of the [University of Michigan Law School](http://www.law.umich.edu), and practices law in [Ann Arbor](http://multimag.com/city/mi/annarbor/), Michigan. Previously, Mr. Larson practiced law in [Marine City](http://multimag.com/city/mi/marinecity/), Michigan, and worked with the [Institute of Continuing Legal Education](http://www.icle.org/)), ExpertLaw, url: http://www.expertlaw.com/library/real\_estate/eminent\_domain.html.

Eminent domain refers to the power possessed by the state over all property within the state, specifically its power to appropriate property for a public use. In some jurisdictions, the state delegates eminent domain power to certain public and private companies, typically utilities, such that they can bring eminent domain actions to run telephone, power, water, or gas lines. In most countries, including the United States under the Fifth Amendment to the Constitution, the owner of any appropriated land is entitled to reasonable compensation, usually defined as the fair market value of the property. Proceedings to take land under eminent domain are typically referred to as "condemnation" proceedings.

States must use eminent domain uniformly.

Garrett ‘7, (Thomas Garrett is an assistant vice president and economist at the Federal Reserve Bank of St. Louis, and Paul Rothstein, associate professor of economics and associate director of the Weidenbaum Center on the Economy, Government, and Public Policy at Washington University in St. Louis, and his article, The Taking of Prosperity? Kelo vs. New London and the Economics of Eminent Domain, was published in the January 2007 issue of The Regional Economist, a St. Louis Fed publication.) January 2007, url: http://www.stlouisfed.org/publications/itv/articles/?id=1209.

The U.S. Supreme Court has long recognized the federal government's power to acquire private property for public use. This is true even though "eminent domain" does not appear in the Constitution. The power of eminent domain is limited, however, by two restrictions. First, as with any federal action, the use of eminent domain must be "necessary and proper" in accordance with the congressional powers enumerated in Article 1, Section 8, of the Constitution. Second, the use of eminent domain must obey the final clause of the Fifth Amendment, which states, "Nor shall private property be taken for public use, without just compensation." The states' use of eminent domain must be consistent with federal interpretations of public use and just compensation.

Politics Link

#### CCS is massively unpopular with Congress and the public

Robin **Mills 11** [ Master in Geological Sciences at Cambridge University, accessed via Google Books, “Capturing Carbon: The New Weapon in the War Against Climate Change”]

CCS already labours under something of a public relations disadvan­tage, due to its association with the unpopular petroleum, coal and electricity industries. It needs only to attract support from politicians, lawyers and real-estate agents to be completely condemned. CCS might suffer from its promotion by the Bush-era initiative on the 'Asia-Pacific Partnership on Clean Development and Climate', widely (and rather accurately) perceived as a literal and metaphorical smokescreen for pol­luting countries and industries to escape mandatory carbon curbs8 and dismissed as 'a nice little PR ploy' by none other than former presiden­tial candidate John McCain.9 The debate is further clouded by 'clean coal', a term trotted out by industry groups such as the American Coa­lition for Clean Coal Electricity. Indeed, coal has become vastly cleaner in recent years in terms of non-greenhouse pollutants such as sulphur dioxide. But to be meaningful at all, 'clean coal' has to include carbon capture on at least 85-95% of its emissions. Otherwise, as in Joel and Ethan Coen's satirical adverts,10 'clean coal' becomes a byword for hype, empty spin and evading environmental responsibility. Such bad press leads the public to be suspicious of carbon capture's environmental and safety credentials. There is a natural cynicism when industry proposes a solution so convenient to itself, however solid the scientific arguments. Scrutiny is intensified when the oil and coal indus­tries take the lead in campaigning against climate change bills, as dur­ing August 2009,n and score PR own-goals such as forging letters opposing environmental legislation. Part of this lobbying is a reaction to elements of the proposed legislation, rather than to the idea of limit­ing carbon dioxide emissions per se, but the subtlety of this message can easily be lost. Carbon capture may come to be seen—indeed, is sometimes already seen—as just one more tactic from the energy industry to delay or avoid taking real action on climate change.12 The major elements of the fossil fuel industry, particularly in the USA, were so slow to acknowledge the reality of climate change, denied the science at every turn, and still continue to spread doubt and misinformation, even allegedly generating fraudulent grass-roots campaigns.1" By doing so, they set themselves up to be the villains of the piece. To some extent, the global debate over carbon capture (and, indeed, over climate change legislation) is now being held hostage by the ideological clash in the USA between left and right. In Europe, a few mavericks apart, business and environmentalism agree much more closely than they might realise on the science of climate change, and the key solutions. Such public opposition can lead to lengthy delays, lawsuits, planning inquiries, permitting challenges and direct protests, against new CCS power plants, carbon dioxide pipelines and storage sites. A backlash from taxpayers or electricity consumers might be caused by percep­tions that heavy subsidies or rising power prices are being used to sup­port carbon capture. The substantial government aid being given to renewable energy in many developed countries may be more popular. Government programmes, as with America's FutureGen, may be more vulnerable to cuts amid the fickle winds of political fortune than those led by companies planning for their future. Recovery from the financial crisis will, at some point, have to be paid for by spending cuts and tax increases, and this may crimp funding for new technologies, however environmentally vital.

#### Congress doesn’t support CCS

CBO, June [2012, “Federal Efforts to Reduce the Cost of Capturing and Storing Carbon Dioxide” Congressional Office of the United States, http://www.cbo.gov/sites/default/files/cbofiles/attachments/43357-06-28CarbonCapture.pdf]

Reduce or Eliminate DOE’s Support for CCS Given the limits on DOE’s ability to lower the costs of CCS through its currently planned activities, lawmakers could substantially reduce or discontinue funding for both developing and demonstrating the technology. If little coal-fired generation capacity was being built in the United States, lawmakers might decide that the develop- ment of technologies such as CCS would have little effect on either reducing CO2 emissions or preserving the nation’s ability to use coal-fired power plants in the future. Moreover, even if DOE’s cost reduction target was attained, coal-fired plants with CCS would not be com- petitive with plants that lacked the technology unless policies were adopted that imposed costs on carbon emissions. Scaling back or eliminating the CCS programs would reduce the need for future annual appropriations for those activities. Moreover, eliminating larger-scale technology demonstration projects would reduce DOE’s involvement in fields in which the agency has a mixed track record and in which U.S. industry is generally not poised to follow up with subsequent investment. An option that would reduce or discontinue support for CCS would not necessarily apply to the funding already provided for demonstration projects, however. Much of that money has been obligated (that is, legally committed for some purpose that will result in outlays) but not yet spent, and because of the CCS-equipped demonstration plants that have been canceled or put on hold, a great deal of it may never be spent. The eventual disposition of those obligated but unspent funds is currently unknown. Because DOE has signed agreements with several private investors to help pay for the five large-scale demonstra- tion plants that are still being built or that are planned to be built, spending for CCS could not be eliminated immediately. In addition, because of existing agreements, DOE might bear some shutdown costs if its support of those plants was terminated or reduced.

Public opposition to clean coal, turns case

GAO 08

Government Accountability Office, September 2008, CLIMATE CHANGE Federal Actions Will Greatly Affect the Viability of Carbon Capture and Storage As a Key Mitigation Option, <http://www.gao.gov/new.items/d081080.pdf>

Thus far at least, there has been little public opposition to the CO2 injections that have taken place in states such as Texas to enhance oil recovery. However, several notable studies explain that this lack of publicly-expressed concern may reflect more a lack of knowledge about CCS rather than confidence that the process is safe.56 This is suggested in the IPCC’s 2005 report on CCS which stated, for example, that there is insufficient public knowledge of climate change issues and of the various mitigation options and their potential impact. In another 2005 study, researchers surveyed 1,200 people, representing a general population sample of the United States, and found that that less than 4 percent of the respondents were familiar with the terms carbon dioxide capture and storage or carbon storage. Some of the stakeholders we interviewed explained that public opposition could indeed grow when CCS extends beyond the relatively small projects used to enhance oil and gas recovery, to include much larger CO2 sequestration projects located in more populated areas. One noted, in particular, that a lack of education about CCS’s safety could potentially create confusion and fear when commercial-scale CCS is implemented. Citing such concerns, a recent report by the National Academy of Sciences underscored the importance of public outreach, noting that while the success of DOE’s carbon capture program depends heavily on its ability to reduce the cost of the technology, “the storage program cannot be successful if a significant fraction of the public views it as dangerous or unacceptable. Thus, the technologies must not only be safe and effective, they must be explainable to the public and the regulatory community in such a way as to instill confidence that they are in fact safe and effective.”57 The report went on to caution that “the federal government in general and the DOE in particular have not had a good track record in accomplishing this task in other programs.” For its part, EPA received similar advice from its Clean Air Act Advisory Committee’s Advanced Coal Technology Work Group. The Work Group’s January 2008 report recommended that the agency immediately develop, in consultation with other agencies, a public outreach effort to explain carbon capture and sequestration.58 A diverse group of panel members at EPA’s 2007 UIC workshop made similar recommendations for public outreach and participation.

#### The plan is unpopular. Support for CCS has dried up

**Shackley and Dütschke, 12** (Simon Shackley, School of GeoSciences, University of Edinburgh, and Elisabeth Dütschke, Competence Center Energy Technology and Energy Systems, “Carbon Dioxide Capture and Storage – not a Silver Bullet to Climate Change, but a Feasible Option?” Energy & Environment, Vol. 23, No. 2 & 3, 2012)

Within policy and political circles, an apparent earlier consensus around the importance of climate change and the need for deep reduction in carbon emissions has weakened under the stress of the new economic austerity plus the increased realisation that decarbonisation would be expensive, difficult (technically, socio-economically and politically) and not necessarily with apparent up-sides for politicians to talk-up for votes. Support for CCS has been one of the victims of this new ‘climate real politik’.

Spending Links

**CCS is extremely expensive**

Emily Rochon et al, climate and energy campaigner at Greenpeace International, 5/2008[“False Hope: why carbon capture and storage won’t save the environment”, Dr Erika Bjureby, Dr Paul Johnston, Robin Oakley, Dr David Santillo, Nina Schulz, Dr Gabriela von Goerne Green Peace http://www.greenpeace.org/usa/Global/usa/report/2008/5/false-hope-why-carbon-capture.pdf]MW

While cost estimates for CCS vary considerably, one thing is certain – it is extremely expensive. CCS will require significant funding to construct the power station and necessary infrastructure to transport and store carbon. Existing policy mechanisms, such as a price on carbon, would need to be significantly increased (by as much as five times higher than their current levels) and supplemented by additional policy commitments and financial incentives.25 The US Department of Energy (US DOE) calculates that installing carbon capture systems will almost double plant costs.26 This will lead to electricity price hikes of anywhere between 21 and 91%.27

No solve all CO2

#### Doesn’t capture enough CO2

Rochon et al 08 Peer Reviewed, Greenpeace International: Greenpeace is an independent global campaigning organisation that acts to change attitudes and behaviour, to protect and conserve the environment and to promote peace, Authors include: Dr Erika Bjureby, Dr Paul Johnston, Robin Oakley, Dr David Santillo, Nina Schulz, Dr Gabriela von Goerne (Emily, May 2008, “False Hope: Why carbon capture and storage won’t save the climate,” http://www.probeinternational.org/False%20Hope%20--%20Why%20carbon%20capture%20and%20storage%20won%92t%20save%20the%20climate.pdf

**Assuming that commercial viability is reached, scenario studies indicate that by 2050 only 20-40% of global fossil fuel CO2 emissions could be technically suitable for capture.** This includes 30-60% of emissions from the power sector.66 Therefore, **up to 70% of emissions from electricity generation in 2050 may not even be technically suited to CCS.**

Topicality XTN

Pipelines are not “transportation infrastructure” --- they’re “energy”

Commerce 10

(United States Chamber of Commerce, “Transportation Performance Index – Summary Report”, 9-23, http://www.uschamber.com/sites/default/files/lra/files/LRA\_TPI%20\_Summary\_Report%20Final%20092110. pdf)

Step 1 – Definition: Transportation Infrastructure It is important to establish a definition of transportation infrastructure in order to establish the scope of the index. General Definition: Moving people and goods by air, water, road, and rail. Technical Definition: The fixed facilities―roadway segments, railway tracks, public transportation terminals, harbors, and airports―flow entities―people, vehicles, container units, railroad cars―and control systems that permit people and goods to traverse geographical space in a timely, efficient manner for an intended purpose. Transportation modes include highway, public transportation, aviation, freight rail, marine, and intermodal. Note that pipeline infrastructure is not included in this definition. For purposes of the Infrastructure Performance Index it is considered an element of energy infrastructure.

Pipelines aren’t topical – they’re a separate category of infrastructure

Babson ‘11

[Adam – Senior Analyst at Russell Research. “Structuring a Listed Infrastructure Portfolio” May 2011, http://www.openworldinvesting.com/files/ow\_listed\_infra\_article.pdf]

While the global infrastructure universe can be analyzed in a variety of ways, the space can be disaggregated into the following categories: transportation infrastructure, utilities, pipelines and communications infrastructure. Transportation infrastructure assets include toll roads, bridges, ports (sea and air) and rail. Utilities infrastructure includes electricity distribution and generation, gas distribution and storage, water and renewable energy. The pipelines sector comprises companies involved in the storage and transportation of oil and gas. Communications infrastructure features cable networks and satellite systems. Some subsectors—such as power generation—may be ignored altogether by “orthodox” investors looking to minimize volatility and correlations to global equities, while other sectors that are only indirectly related to infrastructure—such as mobile telecom companies—may be attractive to “thematic” managers looking for enhanced returns (managers willing to invest in higher-beta, competitively exposed companies).

Pipelines fall into a category of *Energy* infrastructure – which is distinct from transportation

Akinwale ‘10

(Akeem Ayofe, Professor of Sociology – Covenant University (Nigeria), “The Menace of Inadequate Infrastructure in Nigeria”, African Journal of Science, Technology, Innovation, and Development, 2(3), p. 209-210)

3. The Concept of Infrastructure Research on infrastructure dwells on different issues such as education, roads, water supply, power grids, telecommunications, and hospitals (Abosedra et al, 2009; Mandel, 2008; Frischmann, 2007; CBN, 2003; Pendse, 1980). Major infrastructures can be classified into the following categories: 1. Energy/Power Infrastructure: electricity, gas and petroleum pipelines 2. Transportation Infrastructure: surface roads, rail system, ports, and aviation 3. Water Infrastructure: Piped water and irrigation 4. Communication Infrastructure: mass media, internet, phones, and postal services 5. Health Infrastructure: primary, secondary and tertiary heath care services 6. Education Infrastructure: all categories of schools and higher institutions

Including pipelines as *transportation* de-limits – brings in a host of *utilities* infrastructure Affs.

Inderst ‘9

(Georg, Financial Affairs Division – Organisation for Economic Co-operation and Development, “Pension Fund Investment in Infrastructure”, OECD Working Paper, No. 32, January, http://www.oecd.org/dataoecd/41/9/42052208.pdf)

Definition of infrastructure assets The definition of infrastructure investment seems intuitive. The OECD uses a simple and general definition for infrastructure as the system of public works in a country, state or region, including roads, utility lines and public buildings. A standard dictionary‘s definition is: ―The basic facilities, services, and installations needed for the functioning of a community or society, such as transportation and communications systems, water and power lines, and public institutions including schools, post offices, and prisons.‖ (American Heritage Dictionary). Infrastructure assets are traditionally defined by their physical characteristics. One can split them into two main categories, and a range of sectors within those: Economic infrastructure  transport (e.g. toll roads, airports, seaport, tunnels, bridges, metro, rail systems)  utilities (e.g. water supply, sewage system, energy distribution networks, power plants, pipelines, gas storage)  communication (e.g. TV/ telephone transmitters, towers, satellites, cable networks)  renewable energy Social infrastructure  education facilities  health (hospitals and health care centres)  security (e.g. prisons, police, military stations)  others (e.g. parks). There is a lot of variety within infrastructure if it is defined by its physical nature, and people disagree what exactly should or should not count as infrastructure asset. For example, do utility companies count as infrastructure? When their activities span production, distribution and networks, where is the dividing line? More generally, where does public infrastructure end and private infrastructure start?

Pipelines are energy infrastructure – distinct from transportation

Faulkenberry 11

[Ken Faulkenberry earned an MBA from the University of Southern California (USC) Marshall School of Business with an emphasis in investments. “Infrastructure Investment: Energy, Transportation, Communications, & Utilities”, Arbor Asset Allocation Model Portfolio Blog, September, http://blog.arborinvestmentplanner.com/2011/09/infrastructure-investment-energy-transportation-communications-utilities/]

Energy Infrastructure Energy Infrastructure would include electricity generation and the transmission grid, oil refineries and pipelines, and natural gas pipelines. The United States has an antiquated electrical transmission grid with constraints that limit power flows. Increases in demand for oil and natural gas, and changes in where it needs to go, means a need for more investment in pipelines. Engineering and construction companies such as Flour (FLR), Shaw Group (SHAW), and Foster Wheeler AG (FWLT) are individual companies which might benefit from future energy infrastructure spending. Transportation Infrastructure Over the last several decades America’s infrastructure spending has been less than one-half other developed nations and only a quarter of emerging market countries. Civil engineers give our transport structures low marks. Our roads, railways, ports, and airports are all judged mediocre. It has become well recognized that we must invest more in upgrading our transportation infrastructure. But because of the years of neglect, substantial increases in operation and maintenance budgets will also be required. The above engineering and construction firms could also benefit from transportation infrastructure spending.

Clean Coal Bad

Clean coal too expensive – dirty coal wins

Victor, David, Professor ate the School of International Relations and Pacific Studies at the University of California, San Diego, 01/02/09, The Daily Beast, Dirty Coal is winning, http://www.thedailybeast.com/newsweek/2009/01/02/dirty-coal-is-winning.html

Saving the planet was never going to be easy. Avoiding the most catastrophic effects of climate changes will require cutting carbon emissions by 50 to 80 percent over the next four decades, scientists say. After years of deadlock, 2009 was shaping up to be the year the world got its environmental act together. Now it's looking like the global environment may be one of the biggest losers in the current financial crisis. Lower prices for oil—which some analysts predict will hit $25 a barrel—is bad news for investors in green energy. But the big winner is likely to be dirty coal. It already accounts for about 40 percent of the world's emissions of carbon dioxide, the leading cause of global warming. The fuel is plentiful, and its price has fallen about one third since last summer's peak to $80 per ton. In China, the world's largest coal burner, prices have fallen by half and are likely to plummet further. All the top emitters of greenhouse gases depend mainly on coal for electric power. Dirty coal is now getting cheaper relative to other fossil fuels, such as natural gas and oil. New "clean coal" plants would capture carbon and store it away underground, or at least to extract as much energy as possible for each kilogram of carbon pollution. The problem is that clean-coal plants are a lot more expensive than conventional "dirty coal" technology, and the financial crisis is obliterating schemes that would have paid the extra cost. Before the crisis, a team at Stanford University found that the world was investing only about 1 percent of what's needed on advanced coal technologies to meet carbon-emissions targets. Now a spate of canceled projects darkens the picture. There are lots of ways, in theory, to build low-emission power plants. One option is to turn coal into a gas and burn it in an ultra-efficient turbine. This "gasification" approach is not only highly efficient but it also produces nearly all of its carbon dioxide pollution in a concentrated stream that could be pumped safely underground, where it won't warm the atmosphere. So far, few investors are building plants that offer a model for how the technology would be deployed at scale. Before the crisis, a few power companies tried to build just the efficient gasification units, which are cheaper than the whole integrated plant, but most of those plans have evaporated in the last month. Only one large plant is still going forward in the United States, and that one won't include carbon storage. Another route is to burn coal in pure oxygen without gasification, which also yields pure waste that can be pumped underground. A 30-megawatt demonstration plant is operating in Germany. A consortium of utilities is also testing a technology to remove CO2 from plant emissions, but no investor is willing yet to build a full-scale project. These options could double or triple the cost of a power plant. A 300-megawatt plant that cut emissions nearly 90 percent would cost $1 billion to $2.5 billion, and the United States would need about 1,000 such plants to match its current coal-power output. China would need another 1,000. Since the 1960s, when U.S. utilities last made major investments in new plants, their average bond rating has fallen from AA to BBB, and now the credit crisis has made it all but impossible to finance any new plant, much less an expensive, clean one. The European Union has no money for its plan to build a dozen "zero-emission plants." The price of CO2 in Europe is too low to attract investors to this technology. The latest scheme to fix the problem—a giveaway of emission credits to investors who build clean-coal plants—is falling victim to the financial crisis, which has halved the price of emission permits, and thus the value of emission credits. The U.K. has been holding a contest for public funds to jump-start clean-coal technology. In November 2008 BP pulled out of the competition, citing its inability to form a successful consortium. Early in 2008 the U.S. government killed its investment in advanced coal due to exploding costs. Environmentalists, in their opposition to coal of any kind, may provide the coup de grâce. Greenpeace, riffing on James Bond, is hawking a "Coalfinger" spoof on the Internet and is deep in a campaign to stop all new coal plants. U.S. environmental groups recently announced a campaign to expose clean coal as a chimera. Thanks to such efforts, in the United States it's now nearly impossible to build any kind of coal plant, including tests of clean technology. As the world economy recovers, nations will once again turn to their old stalwart, dirty coal.

No clean coal for China

Yarow, Jay, an energy reporter for Business Insider, 09/03/09, The business insider, Clean Coal Is Too Expensive For China, http://articles.businessinsider.com/2009-09-03/green\_sheet/30091806\_1\_clean-coal-china-carbon

It might be time to throw out any dream of "clean coal" in China. [Bloomberg](http://www.bloomberg.com/apps/news?pid=20601130&sid=av__wX90MZIQ) reports on a new [study](http://articles.businessinsider.com/2009-09-03/green_sheet/30091806_1_clean-coal-china-carbon) finding that it would cost $400 billion over the next 30 years to install carbon capture technology. The whole point of using coal as an electricity producer is that it's a cheap source of energy. Adding on the capture technology changes that. The only way China is interested in clean coal is if the U.S. and other western countries kick in a few bucks to lower the [costs](http://articles.businessinsider.com/2009-09-03/green_sheet/30091806_1_clean-coal-china-carbon). Good luck getting a politician to tell his constituents that he's approved hundreds of billions in spending for China.

There is a darker side to clean coal – environmental degradation

Bradsher, Keith, China, 06/18/11, Business Day, Darker side to China's clean coal, http://www.smh.com.au/business/darker-side-to-chinas-clean-coal-20110617-1g7yu.html,

THE six massive silos standing beside this industrial port in north-eastern China hold seemingly contradictory promises. They could help improve the quality of China's polluted air, but they might also contribute to faster global warming. The silos, which are scheduled to start operation in July, are designed to blend cleaner-burning imported coal with China's own high-polluting domestic coal, which is contaminated with sulfur and dust. Coal blending will produce a mixture that will help electric utilities meet China's steadily tightening environmental regulations. It will also increase the efficiency of coal-fired plants by slightly reducing the quantity of coal needed. Burning less coal means less greenhouse gases emitted. But critics argue there is a darker side to cleaner coal. ''Anything that makes coal more cost-effective, like blending, is bad news for the global struggle against carbon emissions,'' said Orville Schell, the Arthur Ross director of the Centre on US-China Relations at the Asia Society in New York. The Chinese government's decision this month to import more coal in order to reduce power disruptions and control rising coal prices ensures that blending will increase rapidly. But environmentalists worry that blending makes coal more acceptable in the short term and stalls the conversion to cleaner or renewable fuels. Chinese coal, much of which is very old, is tightly compressed - which means it releases a lot of heat when burned and has little moisture left. These are two desirable features, according to coal traders. But Chinese coal deposits also contain a lot of sulfur and fly ash, which contributes to particulate air pollution. China has led the world in the construction of high-efficiency coal-fired power plants. These plants heat water to higher temperatures and pressures than earlier designs so that less coal is burned to produce the same amount of electricity. But the newer power plants need coal of a precise make-up, making it even harder for China to rely exclusively on domestic coal fields. So China has gone on a twin binge of importing coal and buying coal mines abroad. Robert Williams jnr, vice-president for sales and marketing at engineering firm Roberts & Schaefer, said the Chinese approach of using specially built silos for blending coal was an unusually expensive approach. But Howard Au, chief executive of Petrocom Energy - a company that builds coal-blending facilities - said that the blending cost per tonne using silos had not changed for the past several years. Coal prices have doubled in the last five years in China to about $120 a tonne for coal with high heat content. ''Blending didn't make sense prior to 2003 as prices of coal were low,'' said Mr Au. But now, Petrocom is making plans for dozens of coal-blending facilities in China to accommodate a flood of imports that could last for decades.