



# THE WEEKLY CLOSER

U.S. SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE  
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## THE WEEK IN REVIEW...

[INHOFE SAYS NAS REPORT  
REAFFIRMS 'HOCKEY STICK' IS  
BROKEN](#)

[ADDITIONAL REACTION TO  
NAS REPORT](#)

[INHOFE REACTS TO BOUTIQUE  
FUELS TASK FORCE REPORT](#)

[INHOFE PRAISES SECRETARY  
MINETA'S RECORD OF  
ACCOMPLISHMENT](#)

[OPENING STATEMENT:  
CHEMICAL SECURITY HEARING  
– INHERENTLY SAFER  
TECHNOLOGY](#)

[OPENING STATEMENT:  
SUBCOMMITTEE ON CLEAN AIR  
CLIMATE CHANGE AND  
NUCLEAR SAFETY NUCLEAR  
OVERSIGHT HEARING](#)

[INHOFE STATEMENT ON UNITED  
STATES SUPREME COURT  
DECISION](#)

## IN CASE YOU MISSED IT...

[U.S. REFINING CAPACITY  
REQUIRES A BOOST, BY  
SENATOR JAMES INHOFE  
SPECIAL TO ROLL CALL](#)

[OPENING STATEMENT BY KEVIN  
BOOK, SUBCOMMITTEE  
HEARING](#)

[WITNESSING THE IMPACT OF](#)

## QUOTES OF THE WEEK...

“Today’s NAS report reaffirms what I have been saying all along, that Mann’s ‘hockey stick’ is broken. Today’s report refutes Mann’s prior assertions that there was no Medieval Warm Period or Little Ice Age.”

US Senator James Inhofe(R-CO)  
*Inhofe Says NAS Report Reaffirms ‘Hockey Stick’ Is Broken*  
June 22, 2006

## INHOFE SAYS NAS REPORT REAFFIRMS ‘HOCKEY STICK’ IS BROKEN

Chairman Inhofe commented this week on the congressionally commissioned review by the National Academy of Sciences that shows that Dr. Michael Mann’s “hockey stick” study was flawed, specifically refuting some of its most often-cited conclusions.

The National Academy of Sciences’ “Surface Temperature Reconstructions for the Last 2000 Years” noted in their summary that there were “relatively warm conditions centered around A.D. 1000 (identified by some as the ‘Medieval Warm Period’) and a relatively cold period (or ‘Little Ice Age’) centered around 1700.” The hockey stick constructed by Mann and his colleagues purported to show temperatures in the Northern Hemisphere remained relatively stable over 900 years, then spiked upward in the 20th century.

“Today’s NAS report reaffirms what I have been saying all along, that Mann’s ‘hockey stick’ is broken,” Senator Inhofe said. “Today’s report refutes Mann’s prior assertions that there was no Medieval Warm Period or Little Ice Age.”

The NAS report also stated that “substantial uncertainties” surround Mann’s claims that the last few decades of the 20th century were the warmest in last 1000 years. In fact, while the report conceded that temperature data uncertainties increase going backward in time, it acknowledged that “not all individual proxy records indicate that the recent warmth is unprecedented...”

In addition, the NAS report further chastises Mann, declaring “Even less confidence can be placed in the original conclusions by Mann et al. (1999)

## NEXT WEEK

[June 28, 2006](#)

Full committee oversight hearing on EPA regional inconsistencies.

9:30 am  
SD-628

9:30 am

SD-628

## EPW RESOURCES

- [Majority Press Releases](#)
- [Speeches](#)
- [Fact of the Day Archive](#)
- [Weekly Closer Archive](#)
- [Schedule](#)
- [Past Hearings](#)
- [Multimedia](#)

that ‘the 1990’s are likely the warmest decade, and 1998 the warmest year, in at least a millennium ...’”

“This report shows that the planet warmed for about 200 years prior to the industrial age, when we were coming out of the depths of the Little Ice Age where harsh winters froze the Thames and caused untold deaths.

“Trying to prove man-made global warming by comparing the well-known fact that today’s temperatures are warmer than during the Little Ice Age is akin to comparing summer to winter to show a catastrophic temperature trend.”

[Return to the top](#) ↑

## ADDITIONAL REACTION TO NAS REPORT

- Lubos Motl, an theoretical physicist and assistant professor at Harvard University weighed in on the National Academy of Sciences ‘Hockey Stick’ report this week.

“The global warming, described by [Sen.] James Inhofe as the greatest hoax ever perpetrated on the American people, was essentially downgraded from ‘certain’ to ‘plausible’, [by the NAS report,]” Motl noted on his website at <http://motls.blogspot.com/2006/06/nas-schizophrenic-climate-report.html>

Motl goes on to further critique the NAS study:

“Because of the MWP (Medieval Warm Period) and the large uncertainties before 1600, [the NAS report] can only say that the current temperatures are warmest in 400 years, not more, the panel says. In other words, it’s warmer now than in the Little Ice Age. Well, this is why the Little Ice Age is called in this way. On the other hand, however, they try to promote the idea that it could ‘plausibly’ (original report) or even ‘likely’ (CNN’s translation or ‘spin’) still be warmer today than in the Middle Ages, and maybe the current temperatures are highest in the last 1000 or 2000 years.

Well, maybe the geologists are also wrong and the temperatures are highest in millions of years. Such ‘maybe’ sentences are completely meaningless. If someone cannot defend a statement at the 99% confidence level, he should close his or her mouth because sentences without sufficiently strong evidence required by scientific standards are nothing else than brainwashing and manipulation.

The science about the ‘catastrophic climate change’ seems rather similar to paranormal sciences: the amount of ‘signal’ that one obtains is more or less directly proportional to the lack of scientific integrity of the scientist.”

- Reaction to NAS report by noted German climate researcher Hans von

Storch and his colleagues, longtime critics of the 'Hockey Stick.'

“We welcome the major conclusion of the[NAS] report that further scientific efforts are needed to sort out a variety of problems with respect to methods and data ; also the uncertainty must be assessed in a more objective manner. Thus, the public perception that the 'hockey stick' as truthfully describing the temperature history was definitely false.”

- Competitive Enterprise Institute had the following to say about the NAS report:

“Having 'high confidence the planet is warmest in 400 years' is a little like saying everyone who eats carrots eventually will die. We all know that. What would one expect after emerging from the little ice age?

Our impression is that the report can be spun in about any direction you want to go. For example, ABC radio is reporting that the NAS panel found the 1990s to be the warmest decade in 2,000 years! Exactly the opposite of what the panel found and reported today.”

[Return to the top ↑](#)

## **INHOFE REACTS TO BOUTIQUE FUELS TASK FORCE REPORT**

Chairman Inhofe today applauded the Bush Administration today for issuing the Boutique Fuels Task Force Report.

“Ensuring an adequate and efficient fuel supply and distribution system is a critical and complex question that the Environmental Protection Agency (EPA), suppliers, refiners, retail stations, and state governments have been wrestling with for a decade,” Senator Inhofe said. “The fuel supply system continues to be tested as refiners must increase capacity to meet demand while making cleaner fuels to meet more stringent air requirements.

“The report underscores the fact that more study is needed in a few key areas, particularly relating to problems with state-specific renewable fuel mandates.

“I recognized long ago that the number of fuels must be reduced eventually, but must be done so gradually and in concert with state and market preferences. Therefore, I included a provision in my bill, S. 1772, the Gas PRICE Act, to eventually ratchet down the number of fuels over time. If Congress is ready to address this issue, they should pass my Gas PRICE Act.”

[Return to the top ↑](#)

## **INHOFE PRAISES SECRETARY MINETA'S RECORD OF ACCOMPLISHMENT**

Today, upon hearing the news of the resignation of Secretary of Transportation Norman Mineta, Chairman Inhofe praised his friend and colleague for his record of accomplishment and service to our nation.

“I congratulate Secretary Mineta for his tremendous record of accomplishment and service to our country as Secretary of Transportation. I have enjoyed working together with my friend in a bi-partisan way to improve our nation’s infrastructure from our time in the House of Representatives, where he served as the chairman of the House Transportation Committee, to last year’s passage of SAFETEA-LU. Secretary Mineta’s commitment to our nation’s infrastructure will be felt well into the future. I wish Secretary Mineta my best in his future endeavors.”

[Return to the top](#) 

## **OPENING STATEMENT: CHEMICAL SECURITY HEARING – INHERENTLY SAFER TECHNOLOGY**

Wednesday, June 21, 2006

Good morning. Today, the Committee will be examining a concept called Inherently Safer technology and its relation, if any, to making chemical sites more secure against terrorist acts. Last week, the Homeland Security and Government Affairs Committee held a markup on S. 2145 a bill to require heightened security at our nation’s chemical sites. During that markup, the subject of IST was hotly debated. An amendment to require IST was wisely voted down by a bipartisan vote of 11-5. Despite this defeat, I am certain this environmental concept will continue to be debated in the context of security, thus our hearing today remains important.

IST is essentially the idea of giving the federal government authority to mandate that a private company change its manufacturing process or the chemicals that they use. We will hear today from witnesses about how IST applies in the real world. What it can do and what it cannot.

In the wake of 9-11, there was a realization that chemical facilities, which are critical to our nation’s economy, could be targets for terrorism. Since then, the Bush Administration has made a determined effort to protect our nation’s critical infrastructure against terrorists who aim to harm us. Congress, too, has acted by enacting into law the Marine Transportation Security Act, the Bioterrorism Act, and a comprehensive nuclear security package that was passed out of this committee. Congress also created the Department of Homeland Security vesting it with power and authority to protect the nation’s infrastructure. DHS has worked diligently and quickly to address the nation’s security issues. In the chemical sector, they have deployed teams of counter terrorism specialists to each identified high-risk chemical facility to work with management, local first responders and law enforcement, states and other federal agencies to assess and address the security needs. DHS has also created several tools to help ALL chemical facilities regardless of whether they represent high-risk locations. This all

means that chemical facilities are more protected and we are all indeed safer than we were 5 years ago.

This committee has twice tried to move legislation to require certain chemical plants to upgrade their security against terrorist acts -- a move strongly supported by the Administration and DHS. Each time, we have been sidetracked by the insistence of some that any such legislation must include allowing DHS to mandate IST. This is an idea that is not supported by DHS, the nation's premier security experts.

The idea of IST predates 9/11 and has never been about security. IST is an environmental concept that dates back more than a decade when the extremist environmental community, Greenpeace and others, were seeking bans on chlorine – the chemical that is used to purify our nation's water. It was only after 9/11 that they decided to play upon the fears of the nation and repackage IST as a panacea to all of our security problems.

Of course I do not view Greenpeace as any sort of authority on security issues – I prefer to stick to the real security experts. And the real security experts at DHS have been crystal clear that they do not support IST requirements. DHS Secretary Chertoff has said: “We have to be careful not to move from what is a security-based focus...into one that tries to broaden into achieving environmental ends that are unrelated to security.”

IST is not a “thing” that can be readily defined in legislation and then measured and regulated. It is a philosophy of safe manufacturing that translates into a complicated, interrelated set of site and community-specific decisions made by engineers and safety experts. We will hear from these very engineers today.

What the security experts at DHS have said that they support and need from Congress is a law that requires facilities to achieve a level of security. They want a performance standard set by DHS that allows for industry to decide how to reach it.

Over the past 5 years, industry has also taken great strides to protect their facilities and they did this voluntarily, in absence of a mandate to do so. For example, the Center of American Progress, who is testifying today, recently noted that 284 facilities in 47 states examined their processes and made what the report characterized as IST-like changes. This proves my point; though I doubt that is what you had in mind. These companies did not operate under a federal regulation when they made the changes. They did a business case study of their operations and made their decisions weighing various factors. Despite what some interest groups would have us believe, chemical companies do not want an attack on their assets anymore than we do. They do not need the federal government coming in and telling them specifically how to manufacture products. Government's role is to direct them to make their facilities secure and help them by providing the guidance and tools to do it but not stifle innovation and economic opportunity by dictating to them how to it.

I look forward to hearing from our witnesses.

[Return to the top](#) 

## **OPENING STATEMENT: SUBCOMMITTEE ON CLEAN AIR CLIMATE CHANGE AND NUCLEAR SAFETY NUCLEAR OVERSIGHT HEARING**

Thursday, June 22, 2006

I first want to thank Chairman Voinovich for holding this oversight hearing and for his continued commitment to strong oversight of the Nuclear Regulatory Commission (NRC). This is the ninth in a series of oversight hearings that began in 1997 when I was chairman of this Subcommittee. Prior to that first hearing, there had not been an NRC oversight hearing in more than a decade.

I want to commend the NRC for making substantial progress over the past year towards safely advancing the future use of nuclear power. As you all know, the initial groundwork was successfully laid through the passage of the Energy Policy Act of 2005. This Act provided critical provisions such as B NRC reforms, security, liability insurance, and human capital B combined with the energy bill=s sections on risk insurance, production tax credits, and loan guarantees provide the foundation for the construction of new nuclear plants.

In addition to successfully implementing these new provisions, we must also address other key issues pertinent to building new nuclear facilities.

I am encouraged by the expected increase in combined construction and operation license applications (COLs) over the next four years. Only one year ago, the NRC was planning to review one Combined License Application (COL) while preparing for three COLs in FY-07. Today, that number has been revised upwards to two COLs while preparing for nine COLs in FY-07.

I commend the NRC for being proactive in meeting this new increase in workload by implementing a design-centered approach which will further help to streamline the review process of like designs. However Mr. Chairman, I must add that I remain wary of the challenging task ahead of the NRC in reviewing licensing applications. I would like to see more proactive initiatives by the Commission in promoting efficient processes such as the design-centered approach instead of requesting additional yearly funding increases to meet increase workloads.

I was pleased to hear the Chairman state from the last hearing in March that the final rule for 10 CFR 52 is expected by the Commission from the staff in October 2006. I sincerely hope that the Commission will place a very high priority on the expeditious review of this rule as regulatory certainty is premium to the future of the nuclear industry.

As per my comments from the last hearing, I would like to continue to caution the NRC about the soon to be implemented safety culture-related enhancements. I intend to fully monitor the implementation of the safety culture approach to evaluate licensee actions to address identified performance issues. We must not let this program turn into a bean counting exercise.

I would especially like to thank Chairman Diaz for his service to the NRC and our country. Mr. Chairman, without your help, support, and leadership at the NRC, I don't think we would be able to even discuss building new nuclear reactors. Thank you for everything that you have done and I wish you well in your retirement.

In conclusion I would like to thank everyone for attending this very important oversight hearing. The NRC and the industry must keep safety as the center of all that they do, and I will continue to support Chairman Voinovich in making sure that remains the case

Thank you.

[Return to the top ↑](#)

## **INHOFE STATEMENT ON UNITED STATES SUPREME COURT DECISION**

On Monday Chairman Inhofe commentated on the United States Supreme Court decision in Rapanos v. United States and Carabell v. U.S. Army Corps of Engineers.

“The United States Supreme Court’s 5 to 4 split-decision leaves many issues to be resolved. What is clear from today’s decision is that the United States Supreme Court continues to draw a narrow focus regarding federal reach extending into local land use decisions and which waters truly are ‘the waters of the United States.’ Furthermore, I look forward to working with the Administration to clarify existing federal policy with regard to navigable waters.”

[Return to the top ↑](#)

## **IN CASE YOU MISSED IT...**

**Roll Call**

**U.S. Refining Capacity Requires a Boost**

By Senator James Inhofe  
Special to Roll Call

June 19, 2006

American families continue to face high energy prices both in their homes and at the pump. Unfortunately here on Capitol Hill, rising energy prices continue to be met with empty political rhetoric. For many, the answer lies somewhere between name-calling, finger-pointing and cries of unsubstantiated “gouging.”

The good news is that there are options available to improve the situation. Increasing domestic refining capacity is one of the best solutions. Recent statements by my Senate colleagues, especially those on the other side of the aisle, lead me to believe that partisan politics may be giving way to this reasonable approach.

### **Increasing Domestic Refining Capacity Is a Must**

Our nation continues to outsource refining capacity. Today, the East Coast imports about 25 percent of its refined products. Importing will likely increase, and with it the price of refined products will rise. Even amid a global oil surplus, the refining market remains significantly tight. Unless policymakers work to boost domestic refining capacity, prices will continue to climb.

The best way to affect the price of a commodity is to control it. When supplies increase relative to demand, prices fall. Of course, the more painful corollary we’re experiencing today is also true; when supplies are volatile or low relative to demand, then prices increase. In Washington, D.C., we must come up with a reasonable solution to this demand.

Another truth: While Congress continues to argue about environmental hypotheticals and improbable nightmare scenarios, other countries are making progress in energy development. For instance, China’s national oil company will begin drilling just 40 to 50 miles off Florida shores at the invitation of its communist Cuban cousin.

The situation is so dire that in a September 2005 interview, Virgin Atlantic Airline founder Sir Richard Branson stated, “If we don’t start now to get more refineries built then fuel prices could literally rocket to \$US 100-\$US 200 [per barrel of oil] and the world economy would come to a grinding halt.” Although Branson expressed interest in building refineries in the United States, his concerns about difficult permits and regulatory framework will mean that he likely will look elsewhere.

The nonpartisan National Petroleum Council’s December 2004 report concluded that “uncertainty over regulations can delay investment decisions and permitting processes can add to investment lead times. Both of these factors will slow the industry’s response to bringing additional supplies to the market.” Further, the expert body concluded that “streamlining the permitting process would help improve the environment for domestic refining capacity investment. ... Streamlining should provide for expeditious overall review and have a clearly defined process for obtaining a permit, with agency roles and responsibilities well-defined and specific deadlines for making permit decisions.”

## The Gas PRICE Act

That's why, as chairman of the Senate Committee on Environment and Public Works, I introduced legislation S.1772, the Gas Petroleum Refiner Improvement and Community Empowerment Act. The legislation provides for a voluntary state-based permitting program to help states to permit new and expand existing refineries without changing environmental laws. Prior to markup, I worked closely with groups representing state and local organizations and environmental directors.

Further, as amended by Sens. George Voinovich (R-Ohio) and John Thune (R-S.D.), the concept of "refinery" was broadened to meet the transportation fuel needs of today and the future. As amended, bio-refineries producing renewable fuels such as ethanol and facilities turning coal into ultra-clean synfuels also would benefit from the cooperative state-federal permit streamlining provisions. Along with state and local support, the National Mining Association and the Renewable Fuels Association endorsed the legislation.

As chairman, I carefully worked to balance and respect diverse regulatory interests when crafting this bill. I felt confident that this important legislation would pass out of committee easily. Unfortunately, however, the Gas PRICE Act stalled due to partisan politics.

The Nov. 7, 2005, issue of the *Topeka Capital Journal* outlined the politics behind the vote. It read: "Politics played the crucial role in Democrat opposition. If gas prices are high next year, the GOP will be blamed and that will allow Democrats to gain seats in Congress. It is a bold strategy, but it is not a solution." The minority did offer one alternative to my bill. Their bill would have authorized the Environmental Protection Agency to design, construct and operate oil refineries. Thankfully, their Soviet-style proposal was rejected along party lines.

## Bipartisan Support Grows for More Domestic Refining Capacity

Now six months later, statements by Democrats across the country may signal a new willingness to put politics aside in support of reasonable efforts like my Gas PRICE Act to increase domestic refining capacity. For example, Montana Gov. Brian Schweitzer (D) wrote an opinion piece in *The New York Times* lauding coal-to-liquid synfuels. The Gas PRICE Act would help Montana realize its dream.

Sen. Jeff Bingaman (D-N.M.), in a speech last month on the Senate floor, stated, "That is not to say we cannot do an even better job of responsibly increasing refining capacity. For example, the government should look for ways to bring stakeholders together to cooperate more in the siting of refineries outside the Gulf of Mexico coastal region, but we need to act in Congress on the basis of actual facts and not on the basis of overheated and inaccurate rhetoric."

## Decision Time: Help Lower Gas Prices or More Democrat Obstruction?

Whether Senate Democrats actually will set aside partisan politics in support of legislation that will increase domestic refining capacity is yet to be seen. What is certain, however, is their statements in support of increasing refining capacity. If Senate Democrats are serious, I look to their support of the Gas PRICE Act. Time will tell if their actions match their rhetoric.

My colleagues in the Senate are some of the smartest professionals I have ever had the pleasure of working with, and so I invite colleagues from both sides of the aisle to work with me to put politics aside and lower prices for all Americans.

Click [HERE](#) for the Op/Ed

[Return to the top](#) ↑

## Opening Statement By Kevin Book

Senior Analyst, Vice President  
Friedman, Billings Ramsey & Company, Inc.

Subcommittee On Clean Air, Climate Change And Nuclear Safety

June 22, 2006

I would like to thank Chairman Voinovich, Ranking Member Carper and all of the distinguished members of this Subcommittee for the honor of being invited to contribute to the important work you are doing here today. The views I will express are my own and do not represent the viewpoint of my employer, the Arlington, Virginia-based investment bank Friedman, Billings, Ramsey & Company, Inc.

Let me begin by offering my admiration for the Members of this Subcommittee and the foregoing panel of Nuclear Regulatory Commissioners. Oversight of the nation's nuclear power industry requires an impressive breadth of financial, legal and technological knowledge.

My comparatively modest task is to serve the men and women who manage institutional assets on Wall Street. Like you and the Commissioners, they are busy and committed professionals who bring a wide range of skills and expertise to their also-critical roles in stewardship of the nation's economy. To the best of my ability, I provide these institutional investors with my interpretation of the energy policy actions taken here in Washington.

Put another way, I analyze the busy people here in Washington for the busy people on Wall Street. Today, it will be my privilege to turn the process around and offer my assessment of institutional investors' attitudes towards the current nuclear regulatory environment.

## The Investment Decision

Financial investors seek returns that outperform industry benchmarks. An investor's charter or institutional mandate may define the class and type of portfolio assets in which he or she might invest. These choices may vary considerably across different firms, funds and asset classes but, whatever the criteria, timeframe or "style" involved, investors generally seek to allocate the capital entrusted to their care to the highest-yielding investments among competing alternatives.

Asset managers and corporate executives within energy and utility companies face similar challenges when considering energy investments. Energy projects usually require years of development once the investment decision has been taken, but the price of a given commodity may change abruptly (and often) within the sustained time period required before cash flows begin. Furthermore, demand for a given commodity can also change, potentially transforming an attractive profit opportunity into a financial loss, sometimes as a result of unforeseen developments.

The debt and equity markets incorporate a measure of the risks inherent to any individual utility or energy firm that might undertake a new nuclear power facility into that firm's "weighted average cost of capital", taking into account both the rate of return a firm must offer its debt holders and the cost to the firm of issuing new equity. It is usually more expensive for firms of any kind to undertake higher-risk projects or for higher-risk firms to issue equity or debt to fund the same type of projects routinely undertaken by lower-risk firms. From the investor's point of view, riskier investments must pay higher returns to be worth considering alongside less risky investments.

Financial investors may also modify expected project returns by multiplying projected future revenues by a coefficient that encapsulates the probability of a successful project or project stage, using this "expected value" in their risk-adjusted return calculations.

Modeling project and securities values requires investors to make subjective assumptions about future conditions using all available information. This can explain the discrepancy in analysts' estimates for different securities. At the same time, investors may show enthusiasm for firms with strategic advantages vis-à-vis their competitors or for industries characterized by the prospect of rapid earnings growth. Likewise, investors may be highly sensitive to the prospect of a significant change in time prior to project completion. Lack of visibility into future regulatory or political circumstances or other key externalities may reduce investors' perceptions of the future value of a given firm's securities.

In the end, investors do not refuse to purchase riskier securities. Rather, the aggregated capital markets demand higher returns to mitigate the effects of higher associated risks.

The capital budgeting process can result in firms (or investors) pursuing

other options when Wall Street demands a higher rate of return than firms undertaking new projects can afford to pay (or choose to pay given the returns they expect to receive from the underlying project). For many years, a combination of these dynamics has driven capital away from new nuclear power facilities and towards other forms of power generation.

### **The Opportunity Ahead**

The nation's 103 nuclear power plants currently provide approximately 20% of U.S. electricity and a total capacity approaching 98,000 MWt . With EIA projections of electricity demand growth through 2025 of 1.5% per annum, new nuclear power plant construction will be necessary to retain at least a proportional role for nuclear power in the nation's future power needs. (A May 15, 2006 letter from Chairman Diaz to this Subcommittee's leadership projected 3,795 MWt of power uprates at 23 nuclear power plant units over the next five years, implying new capacity creation of at least 40,000 MWt to retain a fixed 20% role within the generating portfolio).

This represents a significant change. Since the Three Mile Island accident in 1979, the combination of potentially long delays associated with new reactor permits, high up-front capital costs, unclear regulatory risk horizons and once-cheaper natural gas-fired generation has deterred new nuclear reactor construction. On the other hand, the Energy Policy Act of 2005<sup>1</sup> created several meaningful incentives for new plant construction:

Section 602 of the Act reauthorizes the Price-Anderson Act through December 31, 2025, limiting the financial risk to operators in the untoward event of a reactor accident.

Section 638 of the Act offers the Secretary of Energy authority to enter into contracts to provide "standby support" to new power plant sponsors totaling up to \$500 million (for the first two plants) to offset capital costs associated with certain delays during Nuclear Regulatory Commission approval, Congressional oversight and judicial review or litigation.

Section 1306 of the Act creates an eight-year, 1.8-cent per kilowatt hour production tax credit for new advanced nuclear power facilities subject to certain capacity limits.

Section 1703 of the Act includes advanced nuclear power facilities as eligible projects for federal loan guarantees for 80% of project cost.

In addition, the Energy Policy Act of 1992 overhauled the licensing process to create the combined Construction and Operating License (COL) in place today under 10 CFR 52.

### **Two Potential Outstanding Issues**

Using EIA's projected<sup>2</sup> capital costs of \$2,014/kW, a 1,000 MWt new nuclear plant would be a \$2 billion undertaking that will require project sponsors to source capital from the debt and equity markets. The capital structure of any prospective transaction would likely reflect the character of the project sponsor itself. Merchant generators might structure more debt-leveraged transactions to take advantage of the lower cost of capital associated with federal loan guarantees under Section 1703 of the Act (thereby minimizing the dilutive effects of new equity issues) while regulated utilities might set 50:50 debt-to-equity project capital structures in order to expand their equity rate bases.

Irrespective of capital structure, it may not become clear until after advanced nuclear plant applications have been formally submitted and the capital raising process has begun whether incentives will be enough to generate investor enthusiasm at financial terms that meet the constraints of the project sponsors.

It is my view, based on conversations with clients and colleagues, that the current policy framework leaves two issues outstanding that could potentially result in investors assigning greater risk premiums to new offerings in support of advanced reactor construction.

The first of these is the potential for delay. In any discounted cash flow analysis, of project (or securities) valuation, time is a critical factor. Because a dollar next year is worth less than a dollar today, longer project delays even at a low cost of capital will diminish cash-on-cash returns. The effect is not just limited to the cash flows available to equity shareholders; the prospect of execution risk in tandem with significant financial leverage could potentially erode a project sponsor's creditworthiness.

The legislated incentives for new plant construction suggest a favorable economic result for an on-time completion scenario: the first plants in service will be eligible to receive production tax credits of 1.8 cents per kilowatt hour – a potential boost worth 20% (or far more) of average retail price for electricity produced<sup>3</sup>. The problem is that project sponsors cannot capture this economic benefit until the plants go into operation (and only if operation commences before December 31, 2020). Because new reactors will provide the first test of the combined COL process, investors are likely to consider the unlikely prospect that an unexpectedly long delay might outstrip even the \$500 million offset provided under section 638 (a consideration that becomes much more relevant for plants 3-6, where the offset is only \$250 million, or plants 7+, for which no offset is provided).

Nuclear Regulatory Commission reviews of the operators' inspections, tests, analyses and acceptance criteria may also contribute unpredictable delays to the final stage of the process. Regulated utilities might be able to recoup unforeseen costs associated with delays through rate-base proceedings, but competitive pressure could force merchant generators to offer power at prices closer to prevailing competitive levels, creating the prospect for diminished project returns.

The second area outstanding issue is waste storage. Unanticipated additional capital expenditures by project sponsors to construct waste storage could also negatively affect project returns. According to the testimony of Paul Golan, the Acting Director of the Department of Energy's Office of Civilian Radioactive Waste Management, before the full U.S. Senate Environment and Public Works Committee on March 1, 2006, the nation's power plants maintain more than 50,000 metric tons of nuclear waste at 122 temporary storage facilities in 39 states. Mr. Golan suggested during his March testimony that he hoped to publish a schedule this summer for the Department to submit its permit application for Yucca Mountain to the Nuclear Regulatory Commission.

While Yucca Mountain operations could conceivably begin before new nuclear reactors even go into operation (and therefore well before new nuclear waste would be ready for transportation from onsite facilities to geologic storage), institutional investors must also take into consideration the prospect that federally-provided permanent geologic disposal of nuclear waste may not become operational at Yucca Mountain or anywhere else, in the near-term, intermediate term or even at all. A recent newspaper article<sup>4</sup> projected that new storage at PG&E's Diablo Canyon facility could cost as much as \$200 million. If project sponsors were to bear the costs of constructing storage facilities to accommodate waste from new reactors (in addition to the 2,000 incremental metric tons each year created by the existing fleet of reactors), the additional spending could also diminish expected project returns.

In closing, it is my view that the capital markets will most efficiently support the policy goal of expanding low-emissions, high-capacity electricity generation through the construction of new nuclear power plants when institutional investors face minimum risks associated with regulatory delay and waste storage costs.

This concludes my prepared testimony.

[Return to the top](#) 

## **WITNESSING THE IMPACT OF GLOBAL WARMING IN YOUR LIFE? E-MAIL ABC NEWS FOR A SPECIAL REPORT**

The media is bending over backward to promote global warming alarmism without regard to scientific fact. For example, last week, ABC News put out a call for readers to offer their anecdotal global warming horror stories.

Full text of ABC global warming appeal below

[\*"Notice climate-related changes in your life?" E-mail ABC News.\*](#)

*June 13, 2006 — ABC News wants to hear from you. We're currently producing a report on the increasing changes in our physical environment,*

*and are looking for interesting examples of people coping with the differences in their daily lives. Has your life been directly affected by global warming?*

*We want to hear your stories. Have you seen changes in your own backyard or hometown? The differences can be large or small — altered blooming schedules, unusual animals that have arrived in your community, higher water levels encroaching on your property.*

*Please fill out the form below. We hope to hear from you. Thank you.”*

[Return to the top !\[\]\(aef305f57b9557b4e73b8de50f6d555d\_img.jpg\)](#)

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Marc Morano, Communications Director  
Matthew Dempsey, Press Secretary

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