

***“How the House Climate Bill Was Corrupted by Politics –
And What the Natural Gas Industry Must Do to
Prevent a Repeat in the Senate”***

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Thank you, Fred. Good afternoon, everyone. I’m honored to join you today. And thanks to the other panelists for participating in what may be the most consequential conference in COGA’s history.

Climate change is a hot topic these days. The climate in Washington, D.C., has unmistakably changed for the natural gas industry – and our challenges go well beyond Waxman-Markey. In my 33-year career I can’t remember a time when so many issues have demanded our industry’s attention *and action* all at once.

The paradigm for U.S. natural gas supply has also changed. Our industry has recreated the natural gas supply glut of the 1990s. Now, more than ever, we need to focus on the market. We need to protect and grow *all* markets for natural gas, in particular electric power and transportation. And our top and most urgent priority must be to defeat Waxman-Markey, profoundly misguided legislation that passed the House on June 26. Waxman-Markey is not just a massive tax increase hiding beneath a green facade. It’s not just legislation that substitutes the judgments of politicians for the judgments of markets. Waxman-Markey is fundamentally anti-natural gas. As I’ll explain, Waxman-Markey was designed to prevent what the U.S. Climate Action Partnership (USCAP) and the coal lobby calls “a dash for gas.” The energy and climate policy debate now shifts to the Senate. Low-carbon, abundant, affordable and *American* natural gas should be the “rock star” of this debate. But it clearly was not in the House, and it won’t be in the Senate unless our industry gets its act together – fast.

Two weeks ago the Potential Gas Committee (PGC) confirmed what you’ve heard us say at this conference for more than a decade: America is “swimming” in natural gas. The PGC of course is independent, but it gets technical support and guidance from the Colorado School of Mines. The PGC estimates that America’s *technically recoverable* natural gas resource base has *surged by 35 percent from just two years ago* – to 2,100 trillion cubic feet (Tcf), nearly 100 years of supply at current U.S. consumption.

The coal industry likes to boast that “America is the Saudi Arabia of coal.” The natural gas industry now has the right to claim that “America is the Saudi Arabia of natural gas.” 2,100 Tcf – that’s 350 billion barrels of oil equivalent. (Saudi Arabia claims *proved* oil reserves of 260 billion barrels.) The PGC estimates are of course just a snapshot.

As in the past, these estimates will continue to grow as the smart people in our industry figure out how to apply new technologies to produce gas cost effectively from formations that today are considered not producible.

The PGC report should be front-page news – a game changer, for both America’s energy security and the environment. Ninety-eight percent of America’s natural gas supply comes from North America. Greater use of natural gas produced in America – by American companies who hire American workers and pay American taxes – helps reduce imports and cut carbon dioxide (CO2) emissions.

The PGC report should also be celebrated by those who believe that manmade CO2 emissions must be cut sharply to reduce the risk of global warming. Indeed, if the twin goals of energy and climate policy are to reduce our dependence on imported oil *and* to reduce CO2 emissions, then greater use of American-made natural gas *should be* the foundation of the plan. *Should be* – but in the strange world of politics one can never take logic, facts, and the integrity of the policy-making process for granted. Thus, on June 26 Henry Waxman, Nancy Pelosi, and 217 others in the U.S. House of Representatives embraced a very different energy future for America: one based on “clean” coal, renewable energy, electric cars, and heavy-handed government intervention in energy markets.

Show of hands, please: How many have read the entire Waxman-Markey bill? You’re not alone. President Obama, Speaker of the House Pelosi, and the 435 members of the U.S. House of Representatives haven’t read all of it either – over 1,400 pages, 300 of which were added at 3 a.m., just hours before the House voted 219-212 to send this Orwellian nightmare on to the Senate. Americans can only hope that the Senate provides some desperately needed adult supervision.

Waxman-Markey is the handiwork of USCAP – a coalition of coal-burning electric utilities, large chemical and manufacturing companies, “clean” coal vendors, promoters of wind, solar and other politically favored forms of energy, and environmental groups.

Coal-fired power plants generate over 40 percent of America’s manmade CO2 emissions. You can cut CO2 emissions by nearly 50 percent when you use natural gas instead of coal to generate electricity – *and the investment required to do so has already been made!* America has a huge, existing, underutilized base of power plants built to run on natural gas. But Waxman-Markey doles out free emissions allowances for existing coal-fired power plants, not only nullifying the inherent advantage that low-carbon natural gas has over coal, but potentially enabling utilities with aging coal-fired power plants to build *new coal plants* while leaving America’s existing natural gas plants mostly idle. Even the EPA forecasts that electricity generated by conventional coal-fired power plants will remain constant over the next 10-15 years.

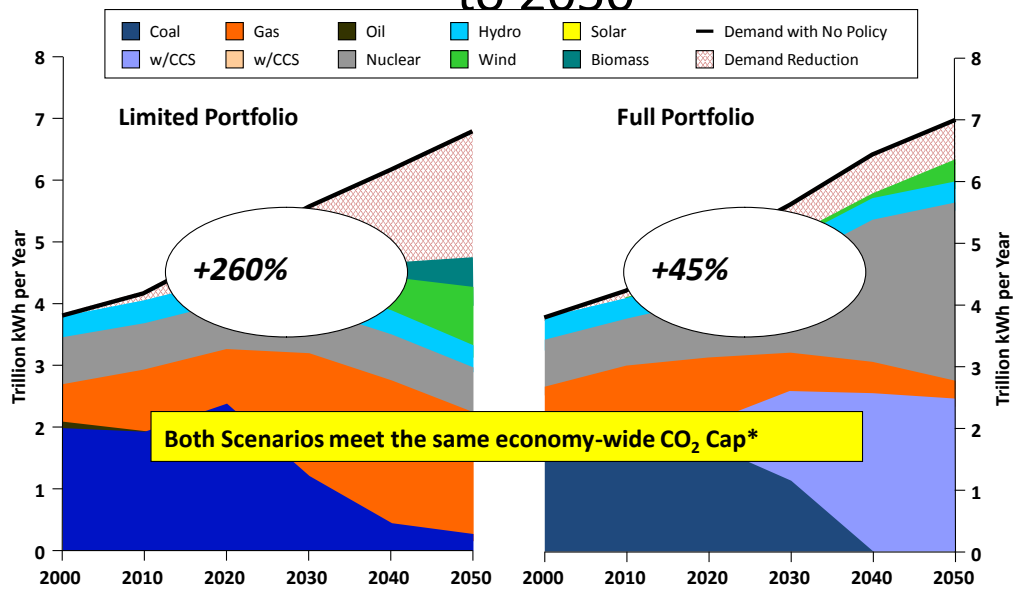
The wind and solar industries are already heavily subsidized – in 2007 federal production subsidies for wind and solar averaged about \$7 per MMBtu-equivalent. But Waxman-Markey throws even more dollars at these uneconomic forms of energy. The House climate bill mandates that by 2020 15 percent of America’s electricity must come from wind, solar and other renewables, thus greatly expanding the profit opportunities for companies in those sectors at the expense of both taxpayers and unsuspecting ratepayers.

You cut CO2 emissions by up to 30 percent when you run a car or truck on natural gas instead of gasoline. The Honda Civic GX natural gas vehicle is the cleanest fossil-fueled car in the U.S. market today. But Henry Waxman's 1,400-page manifesto virtually ignores the significant CO2 reduction that can be achieved by substituting natural gas for gasoline and diesel in cars and trucks. Instead, Waxman-Markey delivers a goodie-bag full of subsidies and mandates for ethanol and electric cars that would ironically be powered by electricity from "clean" coal.

So how is it that low-carbon natural gas got shut out with Waxman-Markey? Because our industry didn't show up for the game. Because USCAP and the coal lobby convinced 219 of the 435 members of the House of Representatives that America is running out of natural gas and therefore climate legislation must be engineered to prevent what one of the large utilities in USCAP warns would become "a dash for gas."

SLIDE ONE is from an Electric Power Research Institute (EPRI) presentation that coal and nuclear-based utilities cite or rely on to bias the policy debate. The chart on the left suggests that natural gas demand (shown in orange) will surge if climate policy triggers this "dash for gas." SLIDE TWO, from a companion Edison Electric Institute (EEI – the electric utility lobby) presentation, suggests that U.S. natural gas prices might jump to \$27 per MMBtu if climate policy causes a "dash for gas." But note the chart on the right of SLIDE ONE. EEI suggests that the increase in electricity prices can be contained by displacing natural gas with "clean coal" and nuclear. EEI arrives at \$27 per MMBtu by assuming that natural gas prices would roughly double from a baseline price of \$13 per MMBtu. As everyone in this room is aware, the wellhead price of natural gas today is about \$3 per MMBtu. EEI further fails to inform the audience that coal prices often move in lockstep with natural gas prices.

Increase in Real Electricity Prices...2000 to 2050



*Economy-wide CO₂ emissions capped at 2010 levels until 2020 and then reduced at 3%/yr SOURC:E Electric Power Research Institute.

Projected Impact of "Dash for Gas" on Prices (based on EEI Model)

	2010	2015	2020	2025	2030
Additional Gas Consumption	2%	4%	9%	16%	25%
Impact on Gas Price	5%	13%	31%	63%	110%

Based on these estimates, what natural gas prices can we really expect by 2030 if we see this additional gas consumption?

- If the Energy Information Administration's baseline forecast is correct (i.e., inflation-adjusted prices remain generally flat, with a projection of \$7/mmBtu for 2030), then prices will actually rise to **\$15/mmBtu**
- But if the current market natural gas price of \$13/mmBtu is a better indicator of the future, then prices could actually rise to over **\$27/mmBtu!!!**

"Additional Gas Consumption" is computed as the incremental amount required for electric generation divided by baseline forecast of total U.S. natural gas consumption from Energy Information Administration 2008 Annual Energy Outlook

June 19, 2008

The bias against natural gas is evident in USCAP's *Blueprint for Legislative Action*, released in January 2009. It includes three key provisions that became the framework for Waxman-Markey: (1) free CO2 emissions allowances for coal-fired power plants; (2) aggressive renewable mandates; (3) heavy subsidies for a crash program to develop carbon capture and sequestration. Incredibly, Henry Waxman – who just a few months ago was calling for a moratorium on coal-fired power plants – became the architect of pro-coal, anti-natural gas legislation. Under Waxman-Markey, “black is the new green” – clean coal replaces natural gas as America’s “fuel of the future.”

So why did some large electric utilities push a climate bill that’s anti-natural gas? It may have something to do with the way regulated utilities make money. Regulated utilities earn an authorized return on their net investment. The more they invest, the more they earn. That economic bias is easily understood – coal-fired power plants are twice as expensive as combined-cycle natural gas-fired power plants. And carbon capture and sequestration – assuming it someday becomes viable – will be hugely expensive when added to these existing coal plants.

Some coal- and nuclear-based utilities deeply resent the market-driven shift to natural gas over the past 15 years. From 1995-2005, the U.S. added over 200,000 megawatts (MW) of new power plant capacity, 95 percent of that built to run on natural gas. They embrace climate legislation as a means to stop this market-driven “dash for gas,” and thereby underwrite decades of massive rate-base growth.

EEI and USCAP are heavily influenced by a large electric utility that is one of the world’s largest emitters of CO2. That utility’s CEO refers to natural gas as his industry’s “crack cocaine.” His antipathy toward gas may have something to do with the fact that most of his coal and nuclear plants are approaching the end of their useful lives and will have to be replaced over the next two decades. He needs to convince regulators to let him build new coal and nuclear plants inside rate base. Above all, he hopes to minimize the amount of power he has to buy from natural gas-fired power plants that he doesn’t own, because when he does he’s required to pass the cost on to ratepayers *without markup*. No investment, no markup, no profit.

Unfortunately, the PGC’s landmark study was released too late to have any impact on Waxman Markey. We need to make sure it gets the attention it deserves now that the debate moves to the Senate.

Let me be clear. I’m not anti-coal. America and the world will need all the energy that markets can deliver. We can’t afford to forego any of our energy options. Coal will continue to dominate the electric power market for many decades. But our industry must oppose legislation masquerading as “climate policy” that prevents lower-carbon natural gas from competing on a level playing field in the U.S. electricity and transportation markets.

Waxman-Markey is a wake-up call for the natural gas industry. We need to get a seat at the table, and we need our own six-part *Blueprint for Action*.

First, we have to convince skeptical senators that the natural gas supply game really has changed. America is the Saudi Arabia of natural gas. We have to explain why the high prices of recent years will not be repeated. We have to rebut the USCAP/EEI arguments that natural gas supplies are scarce. With the current supply glut and with the wellhead price of natural gas today hovering around \$3 per MMBtu – just \$18 per barrel equivalent – the market is already confirming a new paradigm for U.S. natural gas supply.

Second, America won't need massive new investment in either coal or nuclear power plants for many years. America today has about 1 million megawatts (MW) of installed electric generation capacity. Forty percent of that runs on natural gas – about 400,000 MW, compared to just 312,000 MW of coal capacity. But unlike those coal plants, which run at an average load factor of about 75 percent, America's existing natural gas-fired power plants operate at an average capacity factor of less than 25 percent. It turns out that the market offers a cost-effective way to cut CO2 emissions sooner rather than later – we just need to use it.

Third, mandates for wind and solar power will fail without natural gas backup. We need to draw the Senate's attention to the lessons learned in Germany and elsewhere. Germany has installed more wind turbines than any other European country. But the Germans have found that there's a practical limit to how much wind power they can assimilate – less than 8 percent of their total firm capacity needs – without losing grid stability when the wind abruptly stops. Coal and nuclear plants don't cycle quickly and can't respond to sudden changes in wind power. But natural gas turbines can. For every MW of wind power, one MW of natural gas-fired power will be needed to keep the lights on when the wind stops blowing.

Fourth, we've got to make the case that natural gas vehicles are a viable alternative to plug-in electric cars. CNG is a low-cost American-made alternative to gasoline refined from foreign oil. You can fill a CNG car for less than \$1 per gallon-equivalent in many parts of the country today. It's astounding that Waxman-Markey overlooked this lower-carbon alternative to foreign oil in a bill that purports to be about energy security and CO2 reduction.

Fifth, our industry should oppose the "trade" part of cap and trade. It's failing in Europe. It will fail here. CO2 trading will be rife with fraud and corruption, as the Europeans have found.

Finally, if the anti-natural gas bias in Waxman-Markey carries over to the Senate, our only recourse is to oppose any climate legislation that is not global in scope. Global warming is by definition a global problem. *Unilateral* action by the U.S. will destroy jobs in America and harm the U.S. economy without any discernible impact on global-average temperatures. Even the head of President Obama's EPA, Lisa Jackson, agrees that Waxman-Markey will have no impact on the climate if China and the rest of the world refuse to go along. The U.S. government's projections show that by 2050, 70 percent of global manmade CO2 emissions will be coming from China, India, Russia, and other non-OECD countries. The coal-fired power plants that China has built over the past five years will generate more than twice the greenhouse gases that the countries that signed the Kyoto Protocol agreed to cut by 2012. The math is simple. We can cut U.S. emissions by 80

percent – in fact we can shut the U.S. down completely – and *global* emissions will still grow by over 30 percent by 2050. The 219 members of Congress who voted for Waxman-Markey apparently accept as a matter of faith that the rest of the world will follow America off the economic cliff. But China – the world’s largest emitter of CO₂ – has flatly refused to forego the prosperity made possible by fossil energy. Ditto Russia. Vladimir Putin dismisses the idea with a quip: "An increase of two or three degrees wouldn't be so bad for a northern country like Russia. We'd spend less on fur coats, and the grain harvest would go up." Our support for any global action on CO₂ should be premised upon a plan that's transparent, verifiable, and that includes China, India, Russia, and the rest of the world. Hand the plan to President Obama. Invite him to use his considerable powers of persuasion to convince the rest of the world to go along. But also call for specific provisions that prohibit the U.S. from acting unilaterally, and that prevent the EPA from regulating CO₂ under the Clean Air Act – another insane idea working its way through Washington.

We need the support of every natural gas trade group. We pay them a lot of money to represent us. For too long the trade groups in our industry – producers, pipelines, utilities – have solely focused on their particular slice of the pie. It's our fault – they take their direction from us. It's time we all focus on making the pie bigger.

Before I close there's another issue that our industry must fight – Colorado Congresswoman Diana DeGette's profoundly misguided proposal to shift responsibility from the states to the feds for regulating hydraulic fracture stimulation, the technology that has delivered this tsunami of natural gas supply over the past two years. Ninety percent of the natural gas wells drilled in the U.S. today have to be fracked to produce. Fracture stimulation is proven technology – our industry has used it extensively for over 50 years. At least 1 million wells have been fracked in this country over the past 50 years. The EPA and state regulators have studied the potential impacts on underground drinking water sources many times and they've yet to find one instance of drinking-water contamination.

Federal regulation of hydraulic fracture stimulation could cut shale drilling by 35 percent, and would add another layer of regulation that's not needed, thereby creating more uncertainty and more litigation while undermining our ability to develop America's cleanest and most abundant energy resource. Drilling operations – including completions – are already regulated effectively by various state oil and gas conservation commissions. Even the DOE agrees that that this should be left to the states.

In closing, we've learned in the past that energy choices favored by politicians but not confirmed by markets are destined to fail. If history has taught us anything it's that we should resist the temptation to ask politicians to substitute their judgment for that of the markets. Instead, we should let markets determine how much energy gets used, what types of energy get used, where, how, and by whom energy gets used. In truth, no form of energy is perfect, thus only markets can weigh the advantages and disadvantages of different energy forms. Government's role is to set reasonable standards for environmental performance, and then make sure that markets work.

Waxman-Markey is a wake-up call for our industry. Hopefully, we're now awake. But we need to get out of bed and get to work. Thank you – I look forward to your questions when we get to Q&A.