I am Matthew Simmons, president of Simmons & Company International, an investment bank that has specialized exclusively in energy investment banking and energy research to the leading institutional investors in the U.S. for the past 29 years. I serve on the National Petroleum Council and was the Demand Task Force Chairman for the NPC=s 2000 report on the future challenges facing natural gas. I am also a past chairman of the National Ocean Industries Association.

I testified at this committee 15 months ago about the precarious supply/demand balance facing North American natural gas. Since then, the problem has grown in its severity. Natural gas demand must grow even faster than once thought in order for America to increase its electricity use, while supply continues to stay flat as it has done for the past eight years, despite a massive natural gas drilling boom in both the U.S. and Canada of historic proportion.

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There is now a grave chance that natural gas supplies will fall beyond the 3 to 5% drop seen so far. By the time the current supply decline bottoms out, the drop could be severe. Suddenly the concept that gas supplies could grow to even partially meet the demand in the magnitude of 30 TCF a year is becoming a remote dream. If supply falls by as much as 10%, and the drop could be far worse, this could become America=s most serious energy wake-up call since the 1973 Oil Shock.

The precarious supply/demand imbalance of 15 months ago is now headed towards a colossal mismatch between a need for demand to soar while supply drops. The only truism is energy is that demand can never exceed supply. Whatever supply becomes will define the limit to what demand for natural gas will be.

Let me put some numbers behind this grave warning by starting with the demand side of the gas equation. The March 2000 NPC natural gas report presented a compelling case as to why gas supplies must grow from 22

TCF to almost 30 TCF by 2010. We now have on-stream close to the number of gas fired power plants that the NPC study assumed would be built by 2010. Moreover, there are almost as many additional gas fired plants still under construction that have been built thus far, despite cancellations right and left in the wake of Enron and other energy traders= scandals.

The NPC study also assumed that a large number of new gas-fired plants would have dual fuel switching capability. In reality, virtually almost all new plants are being built to use only natural gas.

The NPC report assumed very little gas-fired plant additions in Canada. This also turned out to be incorrect. The combination of these various assumption errors created a need for far more gas supply than the aggressive 30-TCFneeds by 2010 suggested.

Actual gas demand in 2000 was more robust than the NPC model assumed. Then gas demand began to weaken in the residential, commercial and industrial markets. However, gas used to create electricity grew by 16% between 1999 and 2001, despite a particularly mild summer in 2001 and virtually no severe winter weather in 2001/2002.

When the gas used for non-electric utility power plants is added to the electric utility gas use (and subtracted from industrial gas where the critical component of gas demand is still listed in the EIA Natural Gas Statistics,) the amount of gas used to create electricity now exceeds the gas used for all industrial markets by a sizable percentage.

The weak economy dampened gas demand by a modest degree, but benign weather and the demand destruction caused by $10 gas kept gas demand from being far higher. Had the weather not been benign, gas storage would now be facing a severe crisis. Instead, storage became sufficiently full, and, once again, gas prices collapsed. The difference between a storage crisis and storage being (what some believe) too full was a modest

5 bcf/d of lesser demand, highlighting the precarious balance the country faced for its most precious energy source as the 21st Century began.

If the U.S. experiences a hot, muggy summer in 2002, similar to the summer of 1999, gas used to create electricity could soar to over 8 TCF for the year. This is double the amount used for electricity creation as the decade of the 1990s began.

On the supply side, daily U.S. gas production stayed mired at 50 to 53 bcf/d (18 to 19 TCF per year) from 1990 through 1999, despite a steady increase in more gas wells being drilled and a dazzling array of technological advances. A drilling boom of record proportion then occurred in 2000 and 2001. U.S. gas well completions totaled 15,600 in 2000, almost 60% higher than the average new wells completed in the past seven to 10 years. But, this was just a prelude to the all-time record gas wells completed in 2001, which, at 22,086 was almost 2,000 more new wells than were completed in 1981.

Despite this drilling boom, supply barely grew and some data argues that it merely stayed flat when the added gas from natural gas liquids that remained in the gas stream (instead of being stripped) are taken out of normal gas supplies.

It took a massive effort to keep natural gas supplies flat. Over the past decade, the industry completed over 116,000 new gas wells. Of these, 110,000 wells were development wells. In a decade, only 5,939 exploratory gas wells were drilled. Between 1977 and 1982, the industry completed 8.9 times more exploratory gas wells than it averaged between 1995 and 1999. Even during the greatest drilling boom in U.S. history in 2001, only 954 exploratory gas wells were completed.

Despite a record drilling boom, little exploration was done. All this frenzied development drilling merely kept daily gas supply flat. Even if the drilling boom had continued, the industry was facing a risk of running out of

available development drill sites. To use a real estate analogy, it would be like a large homebuilder adding record amounts of new subdivisions without ever buying any new raw land.

A large contributor to the industry=s dwindling gas well drill sites is a lack of access to many potentially high unexplored gas areas, including parts of the Rockies and most of the Outer Continental Shelf (other than offshore Texas and Louisiana.) If the problem of limited access to prime unexplored areas was not bad enough, highly volatile natural gas prices caused massive downsizing in skilled personnel and created a generation of industry participants who became extremely risk adverse.

My guess is that the gas business would have soon faced some supply limits even if the drilling boom grew, as lack of added drilling sites would have eventually brought it to a standstill. But, the drilling boom did not occur. Instead, it collapsed as gas prices fell when gas storage reached a safely full level and demand weakened. Gas drilling stayed strong through October 2001, but thereafter, it fell rapidly. By mid-April of this year, gas rigs at work had declined by 43% from their 3rd quarter 2001 peak.

Reported gas well completions have also started to decline, even though the reported numbers through April 2002 still reflect higher gas drilling through the end of last fall. This is simply a lag effect between the time a gas well is completed and when it is reported. As soon as gas well completions for the 3rd and 4th quarters of 2002 are reported, they will likely drop by another 200 to 400 wells per month, taking the gas completion rate back to levels last seen in early 2000.

Gas drilling has rebounded from April lows. If this increase continues, these low completions should bottom out by late this year. If the industry begins to suffer from a simple lack of drill sites, a drilling rebound to the levels seen throughout 2001 would be a long way off. There were too many signs that the peak of the 2001 drilling boom was unsustainable from a personnel, rig and drill-site standpoint.

The question this raises is how far gas supplies could fall. Our firm conducted a massive supply analysis for 53 counties in Texas which account for 65% of all Texas gas and represents 16% of the U.S. supply. In this extensive survey, we measured the production coming from all the wells completed in 1998 through 2001. Nearly 30% of the production coming from 39,000 individual wells came from less than 3,000 wells completed in 2001.

More important, a small number of highly prolific wells, amounting to only 5% of the new 2001 wells drilled, accounted for almost half of the new well production. These high volume wells maintain peak production for a very brief time and then begin ferocious rates of decline. These giant gas wells are expensive to drill and take almost a year from spudding the well to reaching peak rates.

A classic example of this phenomenon is in Brooks County in South Texas. Ten to eleven high-volume wells make up over 75% of the total gas production in this county, though Brooks County has been a fast-growing source of Texas gas and now ranks as one of the top-ten producing counties in the state. Once these giant wells peak, they can easily lose two-thirds of their production volume within six to nine months.

In this 53-county analysis, 167 giant gas wells completed in 2001, with an average production life of less than six months, made up almost 15% of the total production coming from 39,000 total wells.

This highlights the risk gas supplies now face in a drilling decline. The industry has gone to what has literally regressed to just-in-time supply. A just-in-time supply could have worked if appropriate access to all the proper drilling sites had been available, and gas prices created a stable environment for a steadily increasing amount of new wells being drilled. But, none of this happened.

The decline rates for most of the new gas wells have never been higher. To fight this decline will take a steady increase in more new wells being drilled, not to grow supply, but to merely keep the current base flat.

But, the 2000/2001 drilling boom was unsustainable. Instead, a new decline set in. As a result, the U.S. now faces a possible gas crisis that not only raises serious questions about what was believed to be America=s most reliable energy source, but a crisis that could also put a lid on the country=s ability to expand our generation of electricity until we diversify future power-plant fuel sources, weaning them off their current almost total dependence on natural gas.

Gas supplies will almost certainly continue to drop. A fall of 10% or more is not a certainty, but the risk is high enough that America and the energy industry need to formulate contingency plans on how to react to such a supply short fall.

There are some long-term solutions to this problem. We need far more Arctic gas than a single pipeline can deliver. We need all the deepwater gas that can be developed but it is also important to understand that most deepwater oil and gas projects have the same high decline rates that conventional gas now experiences.

We need far more LNG infrastructure than currently exists. But after a handful of added unloading terminals are built, the world=s total LNG capacity will be in balance. Thereafter, the next series of LNG projects need to include not just an unloading terminal but also a dedicated gas field, a pipeline, a liquefaction plant and dedicated LNG vessels. It is extremely risky for the U.S. to build a series of off-loading terminals on the assumption that all the other components required to make LNG work get developed on a spot market basis.

We need to find ways to drill to the great vertical depths that the high

volume giant gas wells in South Texas now tap. Unfortunately, these wells do not last long, so a far bigger fleet of high horsepower rigs to make this important supply sustainable is essential.

It is also critical that we find a way to tame the extreme price volatility that has now become routine in the natural gas world of 2002. No serious business can cope with prices that bounce up and down by a factor of three to 10 times over the course of a year or two. This volatility is like an insidious cancer and will ultimately kill the gas business unless it is destroyed.

One way to address the extreme gas volatility is to better educate energy traders that the data produced by even the best systems available is not very precise, and should not be used like yesterday=s racing forms to place aggressive bets on natural gas.

I applaud the EIA=s efforts to attempt to get a good handle on the gas storage numbers as they are reported week by week. But, this system will always be subject to err. The problem is not the sketchy data, but the way that energy traders grab this data and translate it into billon dollar energy bets. This data problem and energy price volatility extends far beyond just natural gas.

Finally, access is extremely important. Ultimately, access will need to be extended to all the Outer Continental Shelf acreage of the USA. We must learn from Canada, our northern neighbor, who will soon begin offshore Pacific drilling in addition to the impressive results it is realizing just north of New England. If gas supplies do drop by 10% or more, this should serve as a serious energy wake-up call for the U.S. It would be tragic for the strongest economy in the world to be held hostage to an inability to grow domestic natural gas supply simply because the USA shut down any ability to find and develop this clean energy source in any offshore waters outside our two main energy- producing states.

I commend your committee for holding this hearing to air these serious issues. I hope my remarks help clarify how dangerous and precarious a situation the country now faces with its most precious energy source.

I hope I am being overly worrisome about the pending supply drop, but I have reached this view through hundreds of hours of personal study of the issues and numbers involved.

Thank you.