

**Keynote Speech by Somit Varma, Director, Oil, Gas, Mining and Chemicals Dept,
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Unlocking the Value of Wasted Natural Gas

Dear government officials, industry representatives, technology providers, distinguished guests, colleagues, Mr. Chairman, ladies and gentlemen.....

When I was flying over to Amsterdam, I could not help thinking about all the important reasons why gas flaring reduction is going to be one of the major contributions of the oil and gas industry to energy efficiency and sustainable development.

Nobody at this point, I believe, has any doubt that gas flaring harms the environment and wastes valuable resources. Gas flaring also deprives developing countries of an energy source that is cleaner and often cheaper than others available, and it reduces potential tax revenue for governments and market opportunities for industry.

And as we gather over these two days for the second Global Forum on Flaring and Venting Reduction and Natural Gas Utilization, there could hardly be a better time to address the gas flaring issue, and its broader implications for energy security, energy access, and climate change mitigation. Needless to say, all three also have important links to poverty reduction and the efficient use of limited resources.

Let me briefly elaborate on these broader implications:

First is energy security. With a growing population around the world, it is no surprise that there is and will be a growing demand for energy. In spite of the current financial crisis and predictions that global demand for different types of energy will drop next year, it is also expected that in the longer term demand for cleaner sources of energy, such as natural gas, will increase.

Second is energy access. As members of the international community, we all share the responsibility, and I mean both government and private sector, for achieving the Millennium Development Goals by 2015, a set of United Nations targets for reducing poverty worldwide. The lack of access to energy in various countries around the world, such as in Africa and Asia, is not only causing the loss of productivity and economic growth but also jeopardizing the achievement of these poverty reduction goals. For example, in Africa, approximately 35 bcm of gas was flared last year which if captured, could have generated nearly 12,000 MW of electricity for the continent. This is a crucial contribution toward broadening the access to electricity for the most vulnerable people.

And third is climate change. The negative impact of climate change also has implications for poverty reduction in developing countries. It is the poor that suffer the most from rising sea levels and lower crop yields as a result of climate change. The policy response

is focused on mainly two dimensions: climate change mitigation and climate change adaptation. Reducing greenhouse gases like carbon dioxide from gas flaring and methane from venting will certainly contribute to the mitigation efforts.

We live in a world today, where increasingly flaring and methane leakages are going to be seen as unacceptable. The GGFR partnership estimates that globally at least 150 billion cubic meters of gas are flared or burned every year, causing some 400 million tons of carbon dioxide in annual emissions. The U.S. Environmental Protection Agency estimates that over 100 bcm of methane is vented or lost through fugitive emissions in the oil and gas sector each year. As methane is many more times as potent a greenhouse gas as CO₂, this adds the equivalent of over 1 billion tons of carbon dioxide annually. Altogether, this is more than twice the potential yearly emission reductions from projects currently submitted under the Kyoto mechanisms. Yes, ladies and gentlemen, more than double.

Thus, both upstream gas flaring and downstream methane leakage reductions are very relevant in today's debate on energy issues. And this is precisely what gas flaring and venting reduction can achieve: lowering CO₂ emissions and methane leakages opens new economic opportunities through gas utilization; it improves energy efficiency and it enhances energy security by increasing available supplies.

These, ladies and gentlemen, should be sufficient reasons to step up our efforts in reducing global gas flaring and venting and increasing gas utilization. We know, however, that flaring reduction is a complex task particularly in some countries where we face barriers in the form of insufficient infrastructure, undeveloped domestic gas markets and ineffective regulations. But that's also why the GGFR partners are working together, for it is more viable to achieve results if we support and build on each other's efforts than if we try to play it alone.

And some of these joint efforts are already starting to pay off. To illustrate, let me just mention a few highlights since we came together for the first Global Forum on gas flaring reduction in Paris two years ago.

To start, global figures from the latest satellite estimates show a small decline in global gas flaring, from 157 bcm in 2006 to 147 bcm in 2007. Some of these reductions are directly linked to gas flaring reduction efforts implemented in some GGFR partner countries around the world, including Nigeria.

There is clearly reason for optimism as the world's two major flaring countries, Russia and Nigeria, are taking firm steps in the right direction.

As part of the flaring reduction process in Nigeria, for instance, GGFR is facilitating dialogue between government and industry representatives through the "Nigeria Flare Reduction Committee", which has met every three weeks for the past 12 months. The Committee's Terms of Reference include: to review each operator's existing flare reduction program; to integrate these individual company plans into a "Nigeria Associated Gas Utilization Plan" and into Nigeria's Gas Master Plan; and to look for

opportunities for co-operation between operators that could accelerate the collection of gas. In this context, several options are being considered by the Ministry of Energy, including the setting of annual targets for flaring reduction and the shut-in of high Gas-Oil Ratio wells.

Furthermore, Russia has continued to send strong signals of its willingness to reduce gas flaring and improve associated gas utilization within the next four years. A study entitled "Using Associated Gas in Russia", sponsored by the GGFR Partnership, contains some key recommendations from which concrete policy decisions and plans could be designed and implemented in the coming months. Russia is also exploring the most effective way of joining the partnership.

Angola also has reasons to celebrate as the country and several of our GGFR partners work toward the Angola LNG project, for which the investment decision of 4.5 billion dollars was already approved at the end of last year. Angola LNG will gather and ship associated gas from some 20 offshore fields to a new 5-million-ton per year LNG plant. This LNG project, the first of its kind using mostly associated gas, aims to reduce gas flaring by some 7 bcm per year, with some potential reductions of 32 million tons of CO₂ emissions through 2012.

Let me now spend a few minutes on the role of new Climate Funds

This is no doubt an interesting time for joining climate change mitigation efforts, like gas flaring and venting reduction, since new mechanisms and funding from the international community will likely be available for projects that aim to improve energy efficiency, reduce greenhouse gases and overall help countries move toward a low-carbon economy.

The World Bank Group is taking a pro-active role vis-à-vis the climate change challenge. Let me give you a brief overview of where we stand.

The main objective of this effort is to enable the World Bank Group to effectively support sustainable development at the national, regional, and local levels, as climate risks and climate-related economic opportunities arise. The recently approved Strategic Framework for Development and Climate Change focuses on a number of areas of action that are also relevant for gas flaring and venting reduction. Within this framework, for instance, some deliverables for the energy sector include an annual increase of funding for energy efficiency, and assistance in the reduction of GHG intensity from fossil fuel use. A continued support to expanding access to energy is also expected.

The international community has also created some Climate Investment Funds which are going to be managed by the World Bank.

One of them, and the most relevant for us, is the Clean Technology Fund, whose main objective is to finance scaled up demonstration, deployment, and transfer of low carbon technologies, through the use of concessional loans, grants, and guarantees. Gas flaring reduction projects are eligible for some of this funding.

On the carbon finance front, we have the new Carbon Partnership Facility which aims to move from one-off Emission Reductions projects to a more strategic and long term sectoral and programmatic approach that intends to have a significant impact on emissions reductions and sustainable development. And it is here where there is another potential opportunity for gas flaring reduction projects.

This new approach will be useful for our gas flaring reduction efforts considering that until today only six gas flaring projects, out of 1200, have been officially registered under the Kyoto's Clean Development Mechanism. As part of our efforts to improve this situation, just yesterday, here in Amsterdam, some 30 technical experts and policy makers gathered for the first time in a workshop, sponsored by the GGFR and Norway's Agency for Development Cooperation, to discuss methodological issues and challenges that are limiting the number of gas flaring reduction projects in the CDM pipeline.

It is important that we take full advantage of the potential opportunities that these instruments present.

But we still face some important challenges

We all know that GGFR has already achieved some great milestones in its five years of existence, but we also know that a significant reduction of gas flaring needs to be achieved in order to complete the mission with the desired impact.

A major challenge we still face today, is to bring other key players on board. Although more than 80 percent of global venting and flaring occurs in fewer than 20 countries (and we have worked with most of them in one way or another) some important flaring countries and oil companies still are to join the GGFR partnership. We hope that during 2009 countries such as Kuwait, Libya, China, Brazil and Mexico, will decisively join the global efforts to reduce flaring.

Another challenge is the need for faster implementation of gas flaring reduction projects so that countries and companies can deliver concrete results and global gas flaring continues to decline in significantly greater volumes.

For this to occur, we all need to do our part to "unlock" the value of this wasted gas.

And what do I mean by unlocking the value of wasted gas?

Over the past five years we have accumulated a wealth of experience, lessons and best practices about gas flaring reduction. We now better understand the barriers that we need to overcome, and thus we know what we all need to do to "unlock this value".

First, we need better data to gauge the magnitude of the practice at the country and company level.

Second, government entities need to ensure that they have not only effective regulations in place but also clear policies with the right incentives for operating companies. It is

only then that the necessary infrastructure can be put in place and markets for gas utilization be developed.

Third, we are now certain that gas flaring reduction has been most successful where there is country ownership, high-level support and an effective local partnership between government and industry. There should no longer be any doubt that government and private sector need to work as real partners if tangible results are to be achieved.

Fourth, leadership and commitment are fundamental. I cannot overemphasize the critical role that leadership and commitment play in both the public and private sectors in order to sustain progress over the long term. I know that by joining and remaining in the GGFR partnership, most of our partners are showing that commitment and leadership – however, I believe that the time has come where being committed to a cause is not going to be enough – the world is going to judge us by our actions and now is the time for concrete action to reduce flaring against aggressive time lines.

And last but not least, new and small-scale gas utilization technologies need to be nurtured to commercialization, to provide additional economic options to flaring. In this regard, a special focus of this year's forum concerns small-scale gas utilization. We are pleased to have several delegates and exhibitors who are seeking to develop unique technological alternatives to the venting and flaring of natural gas.

As we can see, “unlocking” the value of wasted gas requires a concerted effort by governments and industry, as well as other stakeholders including multilateral financial institutions and technology developers. This is why the World Bank-led GGFR Partnership was created in the first place. GGFR's main role is that of a catalyst that brings key stakeholders around the table, facilitates the establishment of a common ground with clear targets, and does not allow them to give up or get distracted from the ultimate objective of actually reducing flaring.

I can assure you that GGFR will continue to play that catalyst role, and that the World Bank Group's President, Mr. Zoellick and senior management are following our progress with great interest. Even though we face many challenges, I also trust that we will not give up until the mission of minimum flaring and venting is achieved.

Let me conclude by thanking the GGFR partners for all their efforts and commitment to the partnership's vision of a world without flares. It has taken a lot of hard work and persistence to get where we are today. Let me also extend huge thanks to the co-organizers of this event, and to all our sponsors and exhibitors for making it a reality.

I do hope that you all take advantage of this Global Forum as a space for learning from new technologies, sharing best practices, planning future projects, and advancing flaring and venting reduction initiatives in different countries around the world.

Finally, I urge you to see the gas flaring and venting issue, not only in its technical and economic dimensions, or as that little stone inside our shoe that we need to throw away in

order to feel more comfortable. But rather, look at the gas flaring reduction challenge as an opportunity for making a concrete contribution to poverty alleviation and climate change mitigation, by improving energy efficiency and expanding access to a cleaner source of energy for the people who most need it.

In the end game, the best green credentials of oil producing countries and companies are going to be measured not by publicity campaigns but by their own efficiency in exploiting and delivering energy. This simply means reducing flaring and venting to minimum levels and using the gas productively.

Thus, the time has come to deliver. And that means that each one of us in this room, and beyond, does whatever it takes to unlock the value of wasted gas because our actions will always speak louder than any of our words.

Rest assured that the World Bank Group, through the GGFR partnership and other initiatives will do its part. I trust that you will do yours, and that we all will continue moving in the right direction, so that sooner rather than later, we will bear the fruits of our efforts.

Thank you and I wish you much success.