

## **Attachment 2: Global Gas Flaring Reduction Public-Private Partnership – Expanded Update October 2004**

### **Summary**

Due to the upcoming Steering Committee Meeting, this summary is expanded to cover the period since the March Meeting.

GGFR has made further progress on the global as well as country front. The CDM Methodology report was finalized and the work program in Algeria, Equatorial Guinea, Nigeria and Russia advanced considerably. Furthermore, the work program for Chad was agreed. On staffing, Francois-Regis Mouton from Total has been selected to replace Jaap Broekhuijsen in the core team, who will return to Shell early 2005. OPEC Secretariat has formally joined and other possible new partners are Azerbaijan and Kazakhstan, which are likely to formally join soon. To further speed-up the implementation of the individual country work-programs, and following on from stakeholder workshops, an inclusive approach has been adopted utilizing such tools as regulations, CDM and the global voluntary standard, which was announced in May in Algiers, in concert to break down remaining barriers to gas flaring reduction and facilitate demonstration projects. In that regard, swifter creation of in-country partnerships involving the respective key stakeholders would greatly enhance the implementation process.

### **Progress on Global Work**

#### **Commercialization**

- ***GGFR Objective:** Facilitate commercialization of otherwise flared gas in GGFR focus countries through identification of projects and reduction of barriers. This includes achieving access to international markets, local/domestic market development, and small scale gas use especially for remote areas and marginal developments.*

Commercialization possibilities for associated gas continue to be a major focal point, with the focus moving to an integrated approach showing how commercialization, regulatory issues, standards and carbon credits are inter-linked when it comes to finding successful utilization options. Country work programs, (e.g., for Algeria) are in the process of implementing individually tailored solutions, and furthermore regional concepts (e.g., WAGP) are being addressed. Downstream regulatory frameworks are being established in some partner countries (e.g., Chad and Nigeria).

## Carbon Credits

- **GGFR Objective:** *Helping to realize gas flaring reduction projects by establishing appropriate incentives mechanisms (carbon credits for lowered emission, establishment of methodologies) leading to a reduction of financial barriers. Carbon credits will be utilized, where feasible, as a possible incentive to develop, especially, marginal fields.*

GGFR has studied methodologies for obtaining Clean Development Mechanism (CDM) credits for flare reduction and related projects. The study 'Gas Flaring Reduction Projects: Framework for Clean Development Mechanism (CDM) Baseline Methodologies' - GGFR report no. 6 has now been finalized and published. The report identifies and explains factors in developing baseline methodologies for gas flaring reduction projects. It also provides a framework that serves as a guide for project proponents to use in developing sectorial baseline methodologies, however it does not develop methodologies for specific project categories, as this is not possible given that the CDM Executive Board requires that a baseline methodology be submitted on a project basis.

Russia has now signed the necessary documents to ratify the Kyoto Protocol, and from a GGFR perspective, the next steps are to be active in the process of shaping baseline methodologies and to set precedents for additionality testing. To proceed towards this goal and to augment the framework study, GGFR will now proceed to develop baseline methodologies for actual gas flaring reduction projects and, where appropriate, develop Project Design Documents for accompanying projects to be submitted to the CDM Executive Board. To date, only one methodology has been approved for flare reduction, potentially leaving much unexploited opportunity for alternative types of projects (re-injection and site use, flare efficiency, downstream use of gas) and approaches for the oil & gas sector. Consequently, the GGFR will further benefit the partners by contributing to the development of CDM/JI methodologies, and where applicable, the development of the draft Project Design Document (PDD).

## Standard

- **GGFR Objective:** *Developing a voluntary International Flaring and Venting Standard to provide a guidelines and a framework for flaring reduction, for implementation throughout the GGFR Partnership and beyond.*

The voluntary standard developed in consultation with the Partners provides guidance on how to achieve reductions in the venting and flaring of gas associated with crude oil production worldwide. The Standard includes initial and ultimate goals, guidance for measurement and reporting, implementation and administration, and time targets for implementation. The intent of the standard is to facilitate significant reduction of venting and flaring in the medium term. The Standard was formally announced by the Partnership at the Second International Gas Flaring Reduction Conference in Algeria in May 2004. All participating companies have endorsed the Standard, as well as some member countries (Algeria, Chad, Nigeria). Other member countries are still in the process of

endorsement. A program of country-specific and regional roll-out workshops has started (see under Nigeria).

## **Regulation**

- **GGFR Objective:** *Surveying and establishing of regulations followed by disseminating upstream regulatory Best Practices.*

Developing countries currently lack an efficient regulatory framework that deals with the flaring and venting of associated gas and major efforts will be needed to change the situation. At the same time it has to be recognized that there are also non-regulatory issues, such as voluntary standards, financial incentives, and liberalized energy markets that have major impacts on the economics of associated gas and on operators' decisions to utilize or flare/vent gas. The GGFR report no3, giving an overview on the regulatory situation in forty countries and highlighting best practices was published in February 2004. Earlier capacity Building Workshops were held in Calgary (October 2003 - for all partners) and in Indonesia, as well as Russia. The key area of interest of new partner Khanty-Mansiysk is regulatory support, however, this needs to be achieved in concert with appropriate regulatory authorities. It is expected that another training session on regulatory best practices will be held in Calgary next year to benefit especially new partners. (See also Country work in Nigeria below).

## **Progress on Country Work**

### **Algeria**

- **GGFR Objective:** *Reduce key barriers to flared gas utilization: Gas infrastructure penetration to remote fields and financial barriers for remote fields.*

Algeria remains an active player when it comes to finding solutions to gas flaring and is making serious efforts to lower the amounts of associated gas it produces every year. In that regard, we have in cooperation identified a project as a good candidate for implementing a flare reduction plan. To render the project viable, Sonatrach is considering selling the CO<sub>2</sub> emission reductions generated by the project. The elimination of flaring will reduce CO<sub>2</sub> emissions by approximately 5.7 million tons of CO<sub>2</sub> equivalent over the lifetime of the project (14 years). At the final workshop held in Algiers at the end of September, Sonatrach agreed to start negotiations with the Bank, among others, as a possible purchaser of up to 80% of the emission reductions. It is now the intent of the ongoing work to provide Sonatrach and the Ministry of Mines and Energy with the appropriate support to fulfill the necessary obligations required to bring the project to a successful conclusion, and expect this to be reached by August/September 2005. At the same time the consultants are continuing their CDM capacity building work within the various ministries.

The associated gas utilization review completed phase 2 of the work. and it was concluded that projects in each of the three areas reviewed were potentially attractive, although further optimization would still be required. The next steps focus on the optimization, in particular maximizing the use of existing system capacities, and on implementation planning.

## **Angola**

- ***GGFR Objective:*** *Reduce key barriers to flared gas utilization: Access to international markets, Lack of local gas market, Lack of downstream regulatory framework for associated gas.*

The work to investigate the Angolan LNG project scope for carbon credits took place in July and meetings were conducted with the major stakeholders in the region gaining good support for and understanding of the benefits of the project. Agreement was reached with the National Petroleum Directorate on the following elements of the work plan:

- Angola LNG Carbon Credit study
- Downstream Gas Development Study
- Legal and Regulatory Framework for downstream gas development

To achieve progress with this study a collaborative effort including both National Petroleum Directorate and Sonangol to provide data, guidance and assistance on the Angolan work plan and Carbon Credit Study progress will be needed.

## **Cameroon**

- ***GGFR Objective:*** *Reduce key barriers to flared gas utilization: Many small (offshore) accumulations requiring extensive associated gas gathering network, Oil and associated gas production in decline, Lack of local developed gas market, LPG market imbalance.*

A study to establish whether associated gas can be commercialized through a combination of power generation, production of LPGs and condensate, and carbon credits was completed. A workshop was held in January with all the local stakeholders, and financing options are also being discussed. The next step will be a workshop on regional cooperation on flaring reduction in January 2005.

## **Chad**

- ***GGFR Objective:*** *Reduce three key barriers to flared gas utilization: Small associated gas accumulations, Lack of local developed gas market, Limited regulatory framework for associated gas.*

GGFR participated in the first Chad Oil and Gas Conference and Showcase, which in summary gave an overview of the Chadian situation in the oil and gas sector. In addition, several GGFR Partners were also present at this conference. The major announcement

made at this conference from a GGFR perspective, was the fact that the government had issued a call for tenders to develop the Sedigi field. The authorities, have asked for GGFR support in finding productive uses for the expected associated gas.

A briefing workshop on the preliminary results of the household and industry survey carried out in July/August this year, as part of the consultant report on "Associated Gas Use and Employment Creation in Chad" which will be finalized before the end of the year, was held. All presentations are available on the GGFR web-page: <http://www.worldbank.org/ogmc/ggfrevents.htm>

Four key topics were agreed for the work program:

- Endorsement by Chad of the Voluntary Global Flaring Reduction Standard and help with the implementation
- Assessment of and creation of a regulatory framework for the domestic gas market
- Capacity Building as Concerns the Clean Development Mechanism (CDM)
- Small and Medium Enterprise Creation as concerns the domestic gas market

## **Ecuador**

- **GGFR Objective:** *Reduce key barriers to flared gas utilization: Small associated gas accumulations, Lack of local developed gas market, Limited regulatory framework for associated gas.*

The report on small scale gas utilization high-lighting options for Ecuador was published. Next step is to renew the dialogue with the authorities and the new Energy Minister.

## **Equatorial Guinea**

- **GGFR Objective:** *Reduce key barriers to flared gas utilization: Gas infrastructure penetration, Lack of local market, Access to international markets.*

GGFR visited Malabo to discuss flaring reduction barriers and opportunities with individual key stakeholders. Subsequently, a workshop for key stakeholders was held in London with the objective of facilitating further flaring reduction in Equatorial Guinea through identifying and exploring potential areas of project cooperation and sector assistance. Agreed next steps included a defined action plan to further explore/mature/implement gas flaring reduction opportunities to be carried out by a dedicated task force consisting of the Ministry of Mines, Industry and Energy; GEPetrol; ExxonMobil/MEGI; and Marathon.

## Indonesia

- **GGFR Objective:** *Reduce key barriers to flared gas utilization: Lack of comprehensive flare regulations, Remote and scattered fields, Gas ownership, Lack of development of local market.*

The work program for Indonesia is being formalized. At the same time project work on CDM as well as the general associated gas study were launched. Consultant bids are expected soon. Further the work on a comprehensive gas flaring reduction regulatory strategy/framework for the downstream regulator BPMIGAS is set to begin before the end of the year.

## Nigeria

- **GGFR Objective:** *Reduce key barriers to flared gas utilization: Lack of local developed gas market, Access to international markets, Remote fields at distance from gas infrastructure, Need for gas strategy and legal framework.*

The Nigerian Gas Stakeholders' Policy Workshop (third in an extensive policy dialogue supported by the World Bank based on studies on Gas Sector Diagnostic and Options for the gas sector and the Implementation Plan) was held in September in Abuja. The workshop was organized by NNPC and attracted broad stakeholder interest, with 300 to 350 attendees from industry (both local and international), government and civil society. GGFR financed the consultant work on the first draft of the Downstream Gas Act and recommendations on a revised fiscal regime for gas which were the focus of this workshop. The Government prepared a draft Natural Gas Policy statement summarizing its approach to sector reform and program to develop the gas sector in Nigeria and to reach the flare out in 2008. See also <http://www.nnpc-nigeria.com/phrc.htm>; earlier policy reports are filed at <http://www.ipaenergy.co.uk/nigeria/> (password nigeriagas). The Government invited comments from stakeholders before the next step, which is the ratification in the Assembly.

### *Standard workshop*

The first implementation workshop for the Standard for Global Flaring and Venting Reduction took place November 9-10 in Abuja, hosted jointly by the Government of Nigeria, NNPC and the GGFR. The objective was to initiate and broaden stakeholder engagement towards reaching the Nigerian 2008 target of flaring reduction and to initiate implementation of the Standard by GGFR members to facilitate flaring reduction. The Government agreed to establish a dedicated collaboration vehicle between relevant government parties (including The Presidency, DPR, ministries of power/environment, NNPC, NEPA, NGA) and other key stakeholders including affected/local communities, and take the lead in collaborative action, which will take place in six areas:

- formulation and transparency of (associated) gas, gas pricing and flaring reduction policies
- mechanisms for integration of operator plans regarding flaring reduction

- Gas-to-Power reform, consistent with gas sector reform, including collaboration on maturing and implementing proposal for Gas-to-Power cluster approach
- financing solutions for infrastructure projects to expand domestic market
- create special task force on small scale gas utilization and power supply with key stakeholders including producers, federal and local government, affected/local communities, and pursue regional pilot(s)
- Capacity building for carbon credits, including awareness for project developers and other stakeholders; institutional requirements and pilot project(s)

Next steps include a joint meeting in December for main stakeholders to start the implementation of the agreed action points.

## **Russia**

- ***GGFR Objective:** Reduce two key barriers to flared gas utilization: Access to pipeline infrastructure, Pricing of associated gas.*

A two day workshop hosted by the deputy Governor of the Khanty-Mansiysk Autonomous region, Mr. Vladimir Karasev brought together all the key regional players involved in associated gas production and utilization as well as the relevant research institutes and government officials. The region produces 60 percent of the oil in Russia and has the highest level of associated gas flaring (6 bcm from national quoted figures of 13.5 bcm). The GGFR team focused on international best practices in flare reduction and how these could be adapted to the regional programs. In addition, the GGFR partners from the Alberta Energy Utilities Board shared their approaches to and experiences in gas flaring regulation in Alberta. The forward plan for next steps in the region includes localized focused solutions for flaring reduction with a contribution from GGFR in the following:

- Co-operation on a regional workshop on associated gas utilization in 2005 as part of the annual conference on materializing the oil and gas potential of Khanty-Mansiysk.
- Selection of a demonstration project, which will be developed jointly with private oil companies operating in the region, to include best practices on flare reduction activities. Technical assistance will be provided for the selected project on how to develop a methodology for carbon finance under the Joint Implementation program of the Kyoto Protocol.
- Development of regulations for associated gas use and the presentation of the GGFR work on the standard for gas flaring reduction in cooperation with the relevant bodies of the federal executive and legislative branches of power in Russia.
- A review of the summary of the project on Inventory of GHG Emissions in Khanty-Mansiysk.

## **OPEC**

A workshop on CDM and implementation of the voluntary standard in member countries is planned for May 12-13, 2005.

## **Non partners**

### **Azerbaijan**

The country has expressed interest in joining the Partnership. A mission established that actual flaring amounts are fortunately lower than previously published. Currently a work-program is being discussed, which includes project assistance for an associated gas gathering project that would capture at least half of the remaining flaring in Azerbaijan.

### **Brazil**

GGFR made a presentation of its activities at an Arpel workshop on CDM and sustainable development. The mission also received confirmation that Petrobras and the Ministry of Mines were keenly interested in the topic and would want to join GGFR, however we are still awaiting final confirmation.

### **Kazakhstan**

GGFR presented at the KIOGE (Kazakhstan Industry Oil & Gas Exhibition) conference which was attended by 600 delegates from all sectors of the oil and gas industry. Considerable action is already underway towards minimization of gas flaring. The Ministry and KazMunayGas were very interested to co-operate with GGFR, particularly on technology options to reduce flaring and projects to attract carbon finance.

### **Mexico**

Pemex was initially interested in joining GGFR, but no final decision has been received.

### **Trinidad & Tobago**

GGFR presented at an oil & gas conference in Port of Spain for the Latin America and The Caribbean region, and met with the Minister for Energy and Energy Industries. Since then, Trinidad & Tobago has been very helpful in engaging the region, and may be interested to join the partnership themselves.

Presentations were made to industry organizations (API, APPA, ARPEL, IPIECA, OGP, OLADE) with the aim of introducing the GGFR flaring reduction standard to their members, most of whom are outside the Partnership. In addition, future cooperation was discussed, in particular dissemination activities like flaring reduction workshops for members of these organizations.