

Challenges in developing/implementing oil & gas flaring reduction projects

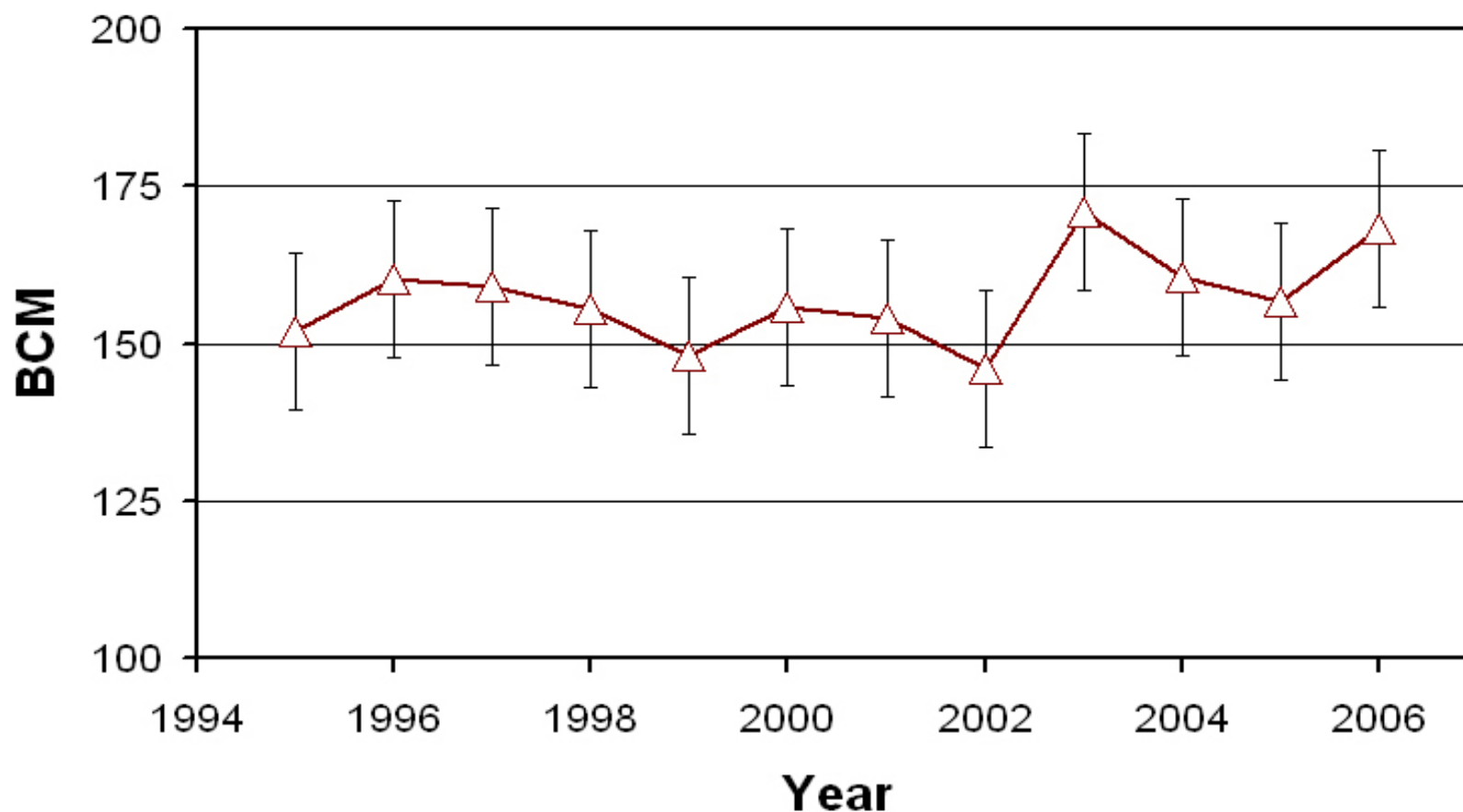
Paul J. Parks -- Carbon Limits

Salient Factors concerning Gas Flaring

- GHG Impact:
 - 150 BCM flared annually equals:
 - 350 million tons CO_{2e} (assume 100% flare efficiency)
 - 475 million tons CO_{2e} (assuming 95% flare efficiency)
- Sustainable Development
 - 70% occurs in developing countries (18% in transitional)
 - Gas flared in Africa equivalent to half the continents power consumption
- CDM Impact
 - 2 existing methodologies
 - 4 approved projects (app. 1% of gas flared)

Estimates of Global Flaring Quantities -- Satellite Data

Global Gas Flaring Estimated From DMSP Data



Developers - Barriers to CDM Gas Flaring

- Not generally convinced of CDM/CERs financial advantages
- Uniqueness of projects require high technical knowledge
- Lack capacity to develop gas projects (esp. state companies)
- Substantially third party infrastructure requirements
- Regulatory and political barriers

Host Institutions - Barriers to CDM Gas Flaring

- DNAs often lack clear priorities and procedures
- State companies often have substantial influence on projects and not conversant of CDM
- Macro policies are not structured to encourage CDM

Barriers in CDM International Institutions

- Methodologies are often limited and inflexible
 - Difficult to make general methodologies
- Lack of understanding of development challenges
 - Data accessibility and host country institutions
 - Data appropriate for the development situation
 - Challenges of security, lack of infrastructure, failures and potential failures in the system
- DOE availability and limited ability to assess technical issues
 - Difficult to distinguish significance of the variables

West African Example

Scope of the Methodology

Back-up if gas cannot be marketed

“The Egbin Thermal Power Station, a few miles outside Lagos, is Nigeria's largest generating plant, with a capacity of 1,320 megawatts. It has six units, but two have been cannibalized to repair the remaining four, and at peak hours only two turbines are functioning. On bad days, like the first week in November, when the gas supply line was sabotaged, the plant shuts down altogether.” Forbes, 4 Dec 2007

“Currently, the country faces a serious energy crisis due to declining electricity generation from domestic power plants which are basically dilapidated, obsolete, unreliable and in an appalling state of disrepair, reflecting the poor maintenance culture in the country and gross inefficiency of the public utility provider.” Energy Policy, Volume 33, issue 9, June 2005)

Project Developer intends to install capacity to inject gas into geological reservoir in case the IPP cannot take the gas. DOE doubts this is permitted by methodology

Increased Limitations on AM0009 Applicability (Ver. 3)

Two New Criteria added In Version 3:

- The project activity will not lead to changes (negative or positive) in the volume or composition of oil or high-pressure gas extracted at the production site
- No gas coming from a gas lift system is used (sic) by the project activity

These criteria:

- Dramatically limits the applicability and limits the use of the methodology
- Ignores the reality that the project activity is a minor, but integral part, within an overall oil production field, where some impacts will always occur
- Were added with no discussion or explanation

Reflect the Reality in Developing Countries

Stakeholder Comments for a project activity 30km offshore of a developing country:

Country situation:

- *Conflict and humanitarian crisis have claimed an estimated 5.4 million lives and continue to take 45,000 more every month... ongoing strife and poverty continue to take a staggering toll across the country. IRC Report January 2008*

DOE Recommendation for Stakeholder Comments:

- *Stakeholder have not been consulted. During the on-site visit this was discussed and it has been revealed that some stakeholders exist like territory administrator of the region, the closer neighbourhood, local representatives of the environment, City Hall (major) and possibly others.*
- *Relevant stakeholders should be consulted. Appropriate media should be used to invite comments by local stakeholders. The stakeholder process, used media and given comments...*

How to Improve the CDM Effectiveness

- Focus on if the project activity conforms to the objective and framework of the methodology
- Greater emphasis on the reasonableness and significance of the data used
- Greater willingness of both the DOE and the CDM boards to discuss the technical issues in an open manner



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