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R E G I O N A L F O R U M



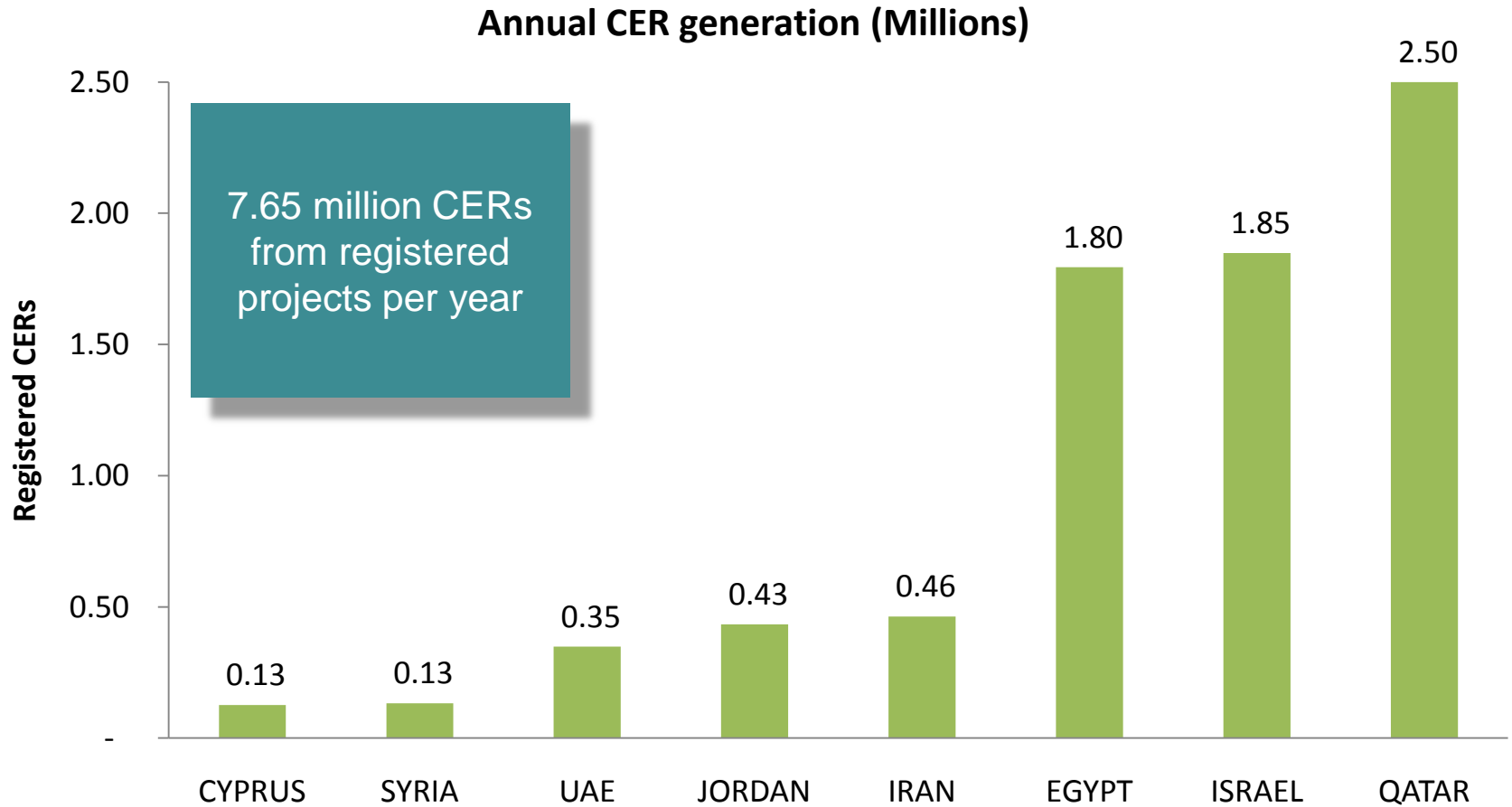
Review of potential projects, barriers and CDM future in Middle East

Inderjeet Singh
May 10,11 - 2010

PRICEWATERHOUSECOOPERS 

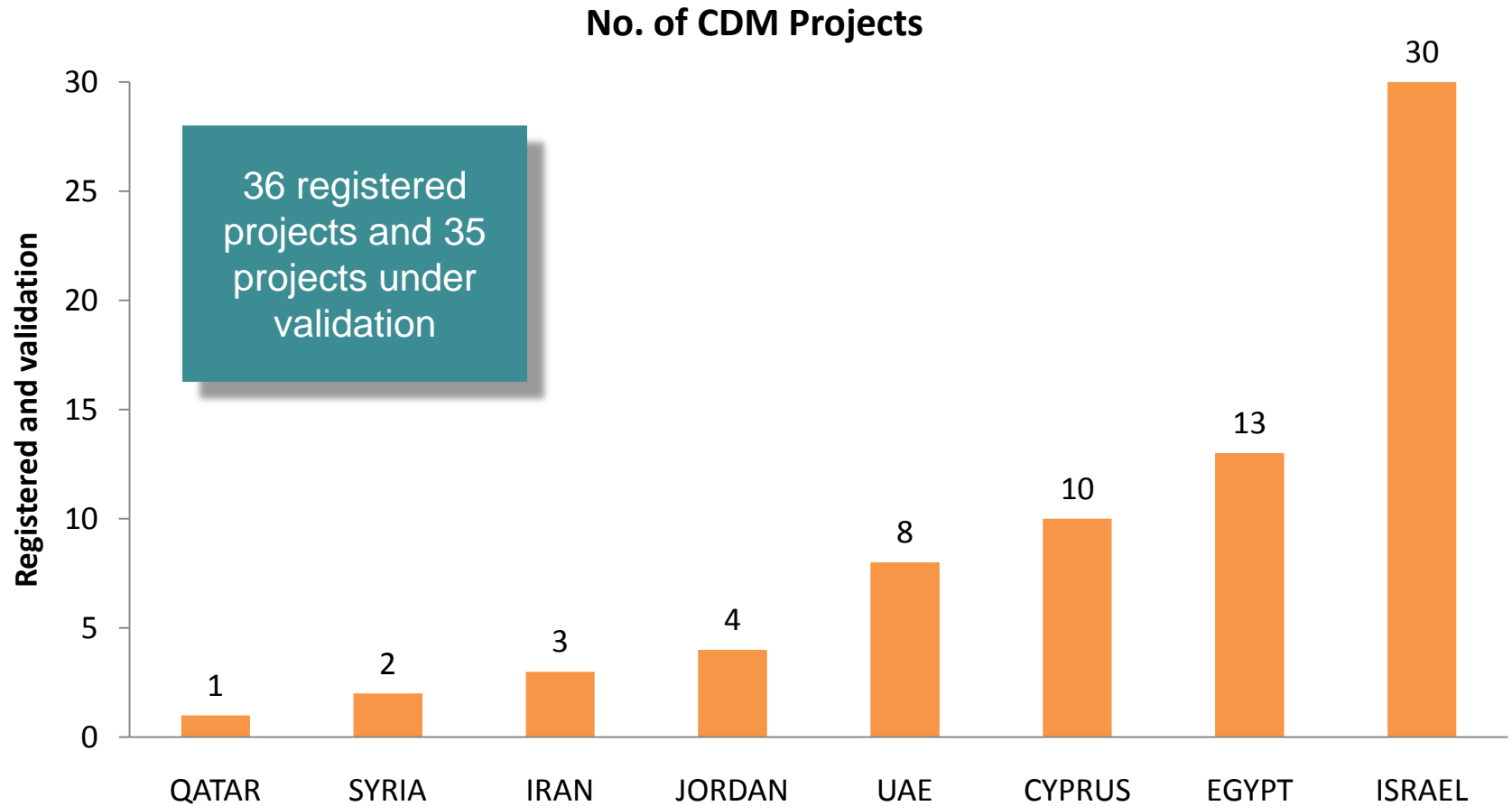
Progress on CDM in the Middle East

Annual registered CERs



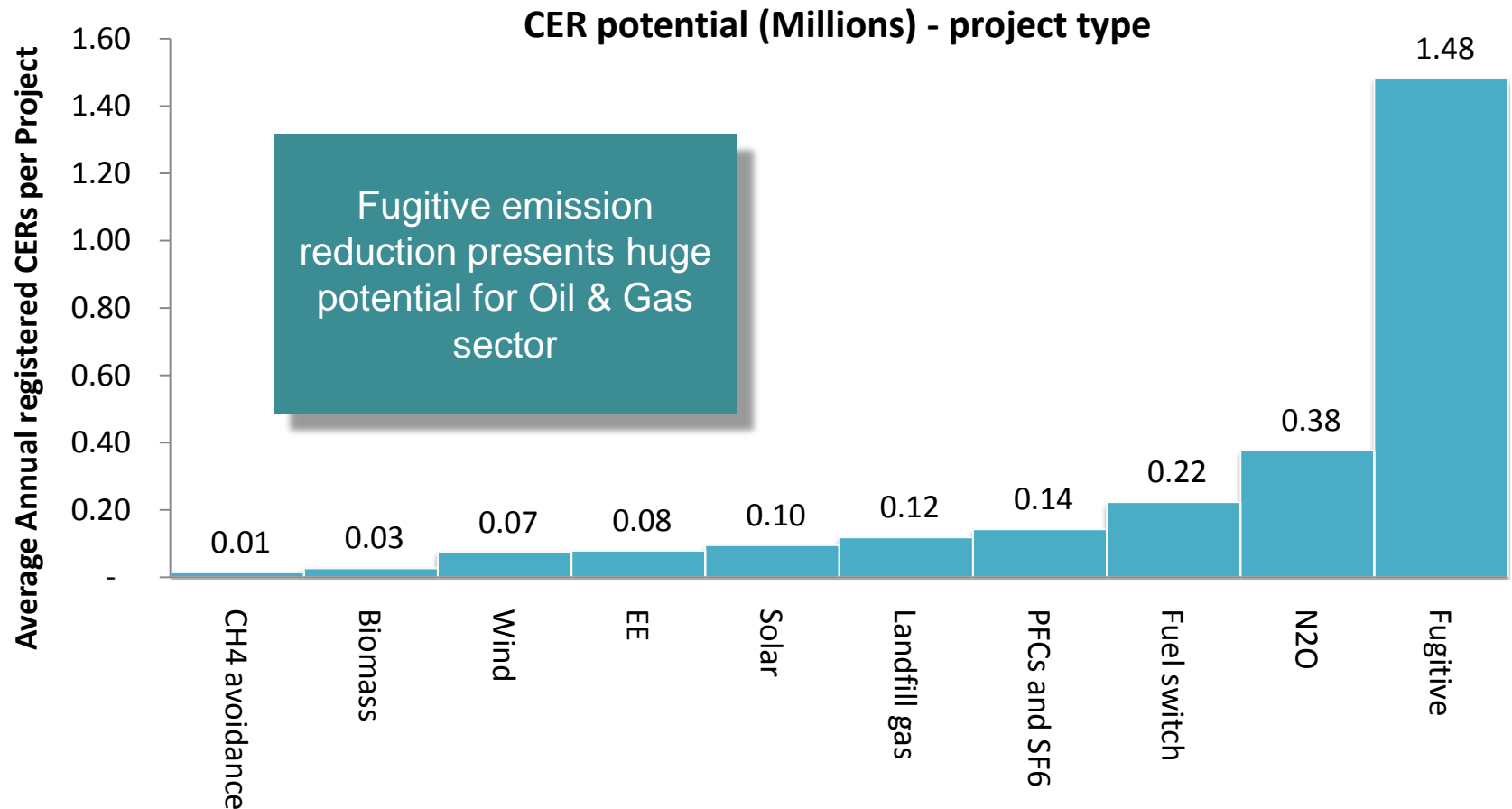
Progress on CDM in the Middle East

Few Projects, Fewer countries



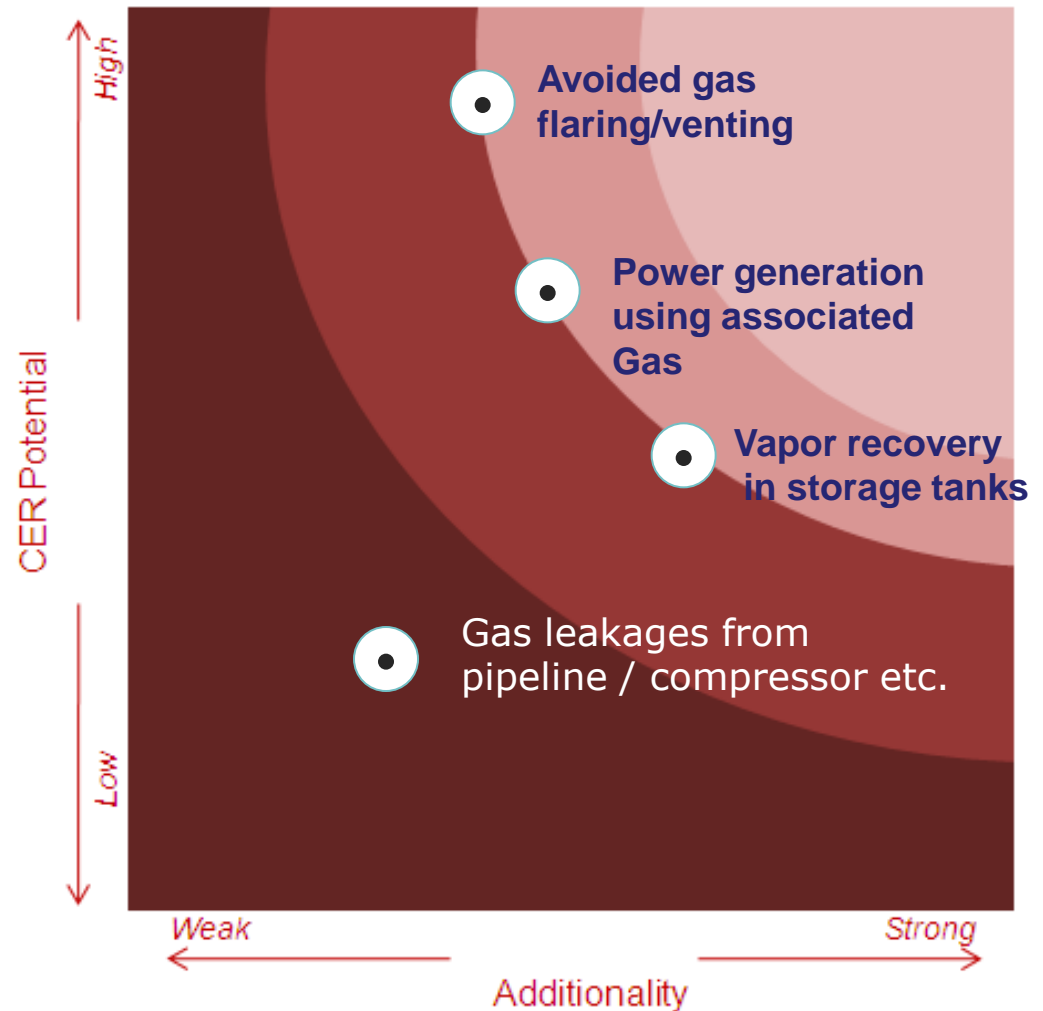
Prospects for CDM

High potential - Fugitives and N2O



Prospects for CDM

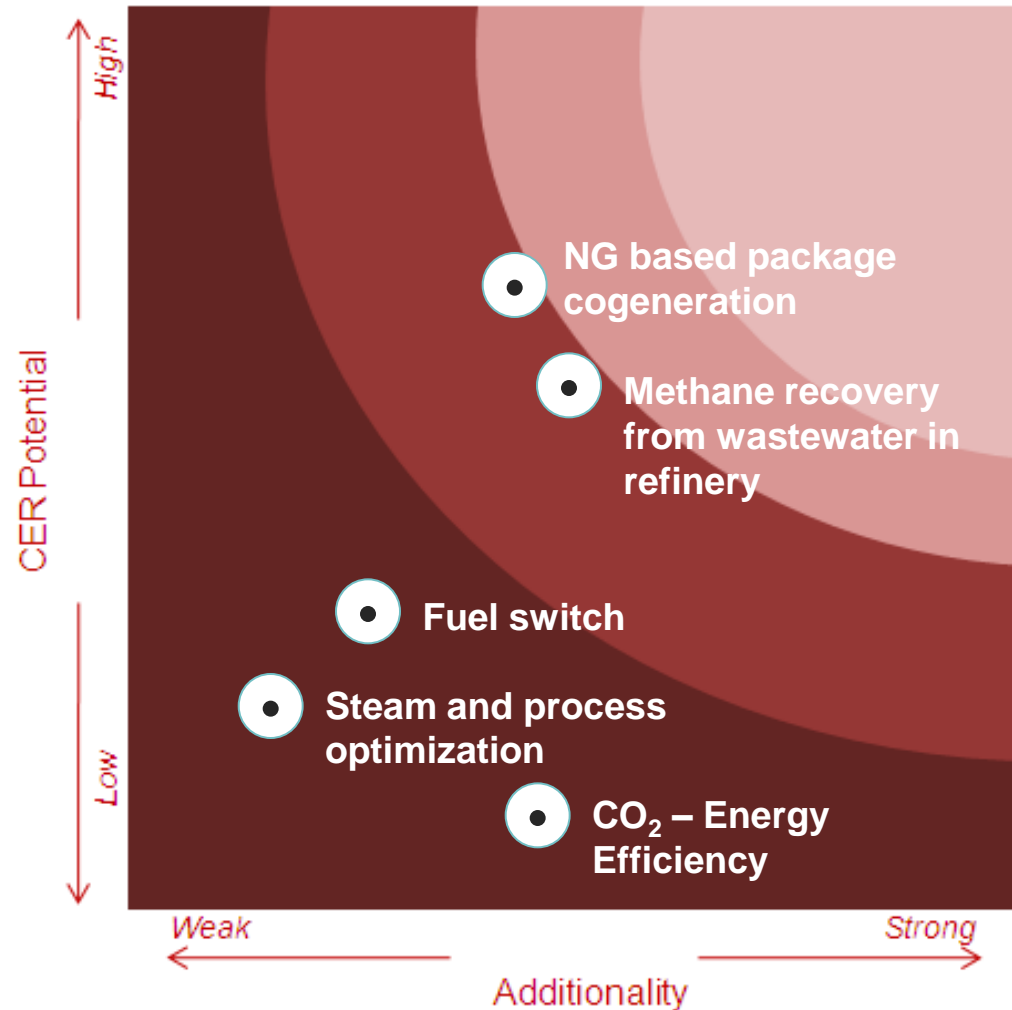
CDM Potential in Oil and Gas Industry - Upstream



Prospects for CDM

CDM Potential in Oil and Gas Industry – Downstream

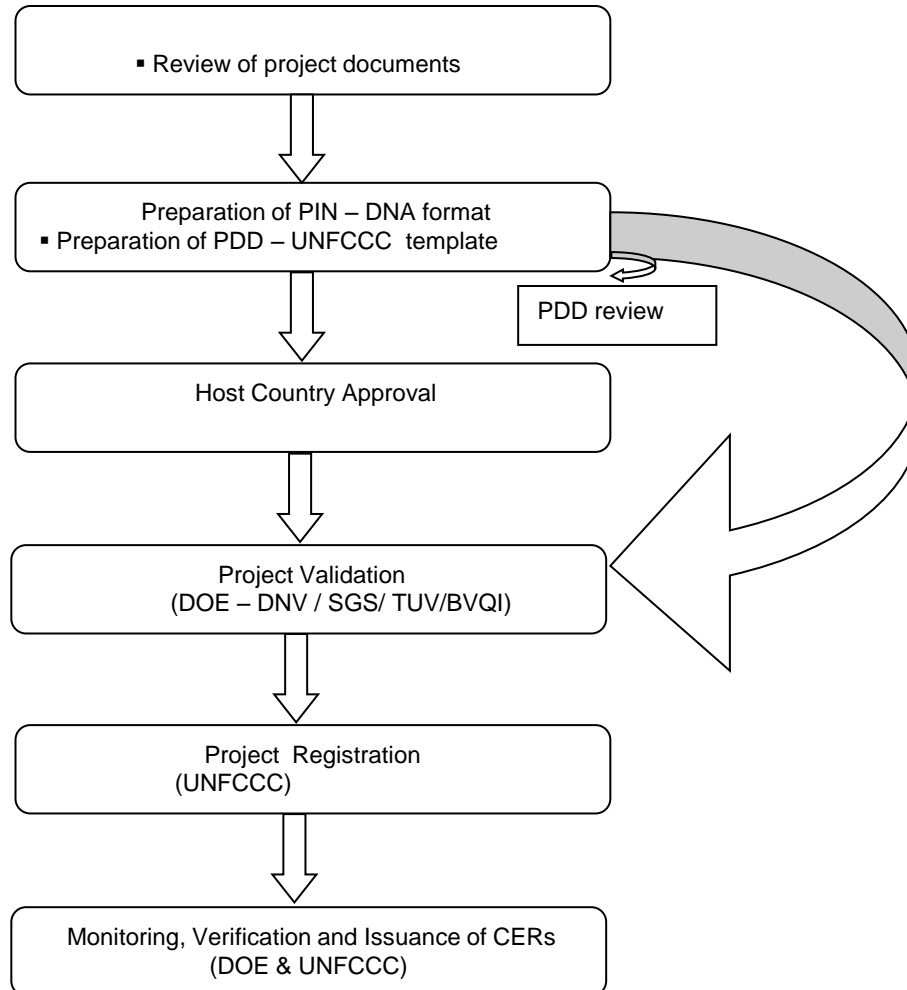
Downstream Operations (Refining)



Prospects for CDM Barriers Inhibiting CDM development

- Institutional structure – Limited presence of DOEs and Consulting capacity
- Institutional Capacity – Limited CDM resource availability with Project developers
- Complexity in CDM monitoring and high costs and time involved
- Lack of information – country specific baseline emission factors
- High CAPEX and OPEX for flaring avoidance

CDM Cycle



Barriers to CDM

Complexity in CDM development for Gas flaring projects

AM0009 – “Recovery and Utilization of gas from oil wells that would otherwise be flared or vented”

- Projects registered : 07, of which 02 in Middle East
- Projects under Validation: 07
- CER Issuance for projects: 02

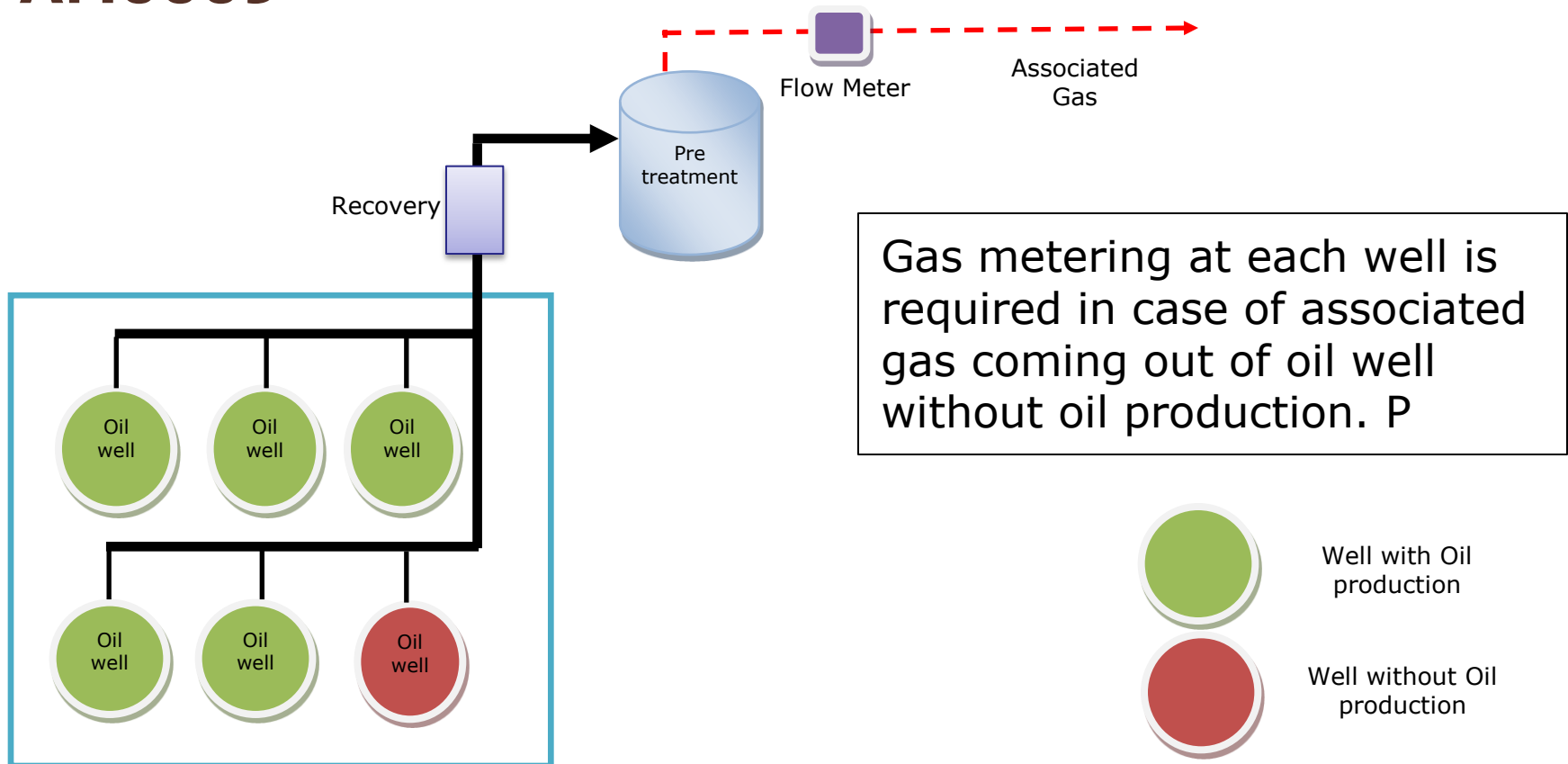
Issues in the Applicability of the Project activity-AM0009

- All recovered gas should come from Oil production from all the wells in the project boundary
- The injection of any gases into the oil reservoir and its production system is allowed in the project activity only for the purpose of gas lift process.

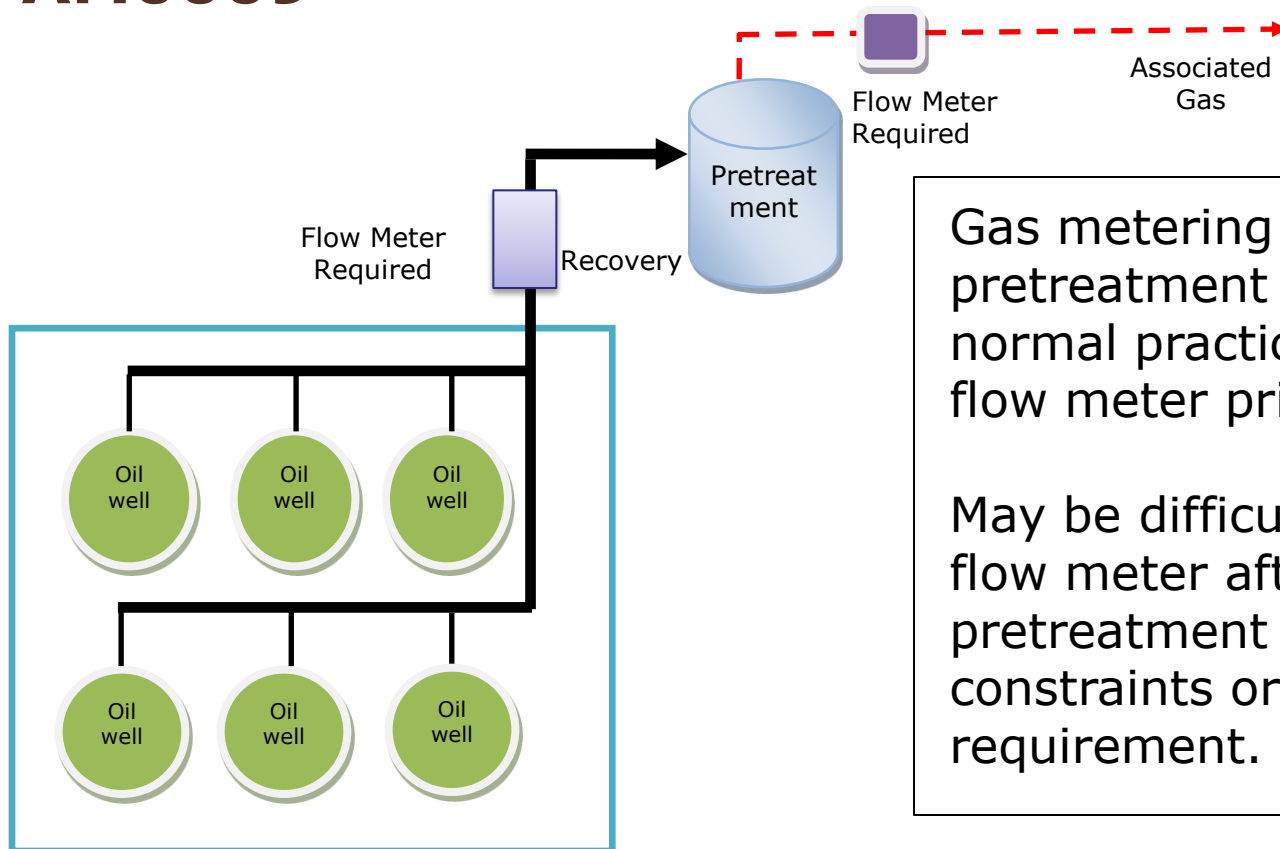
Issues in the Monitoring of the Project activity-AM0009

- CER issuance to AM0009 projects – Low
- Monitoring requirements significantly reduced from version01-version04
- Location of metering is an issue

Issues in the Monitoring Project activity- AM0009



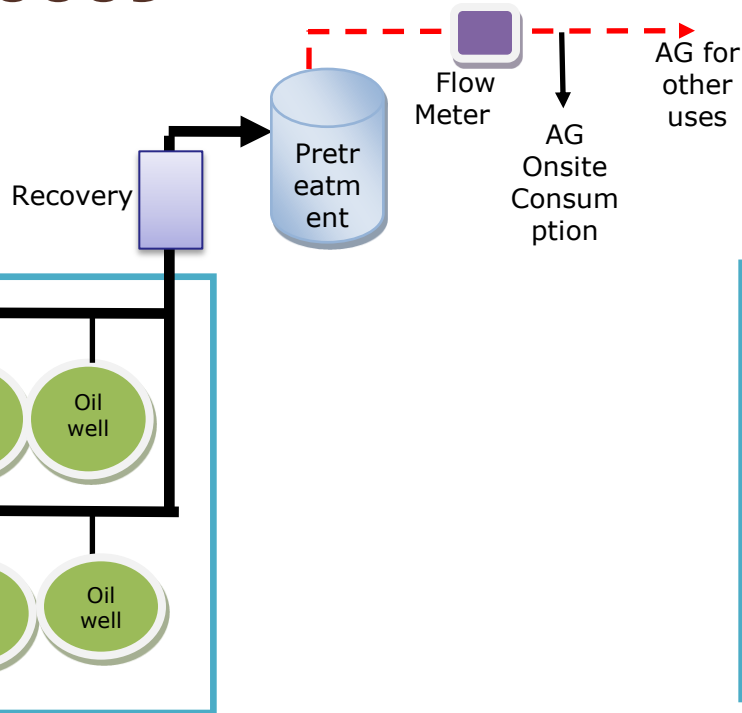
Issues in the Monitoring Project activity- AM0009



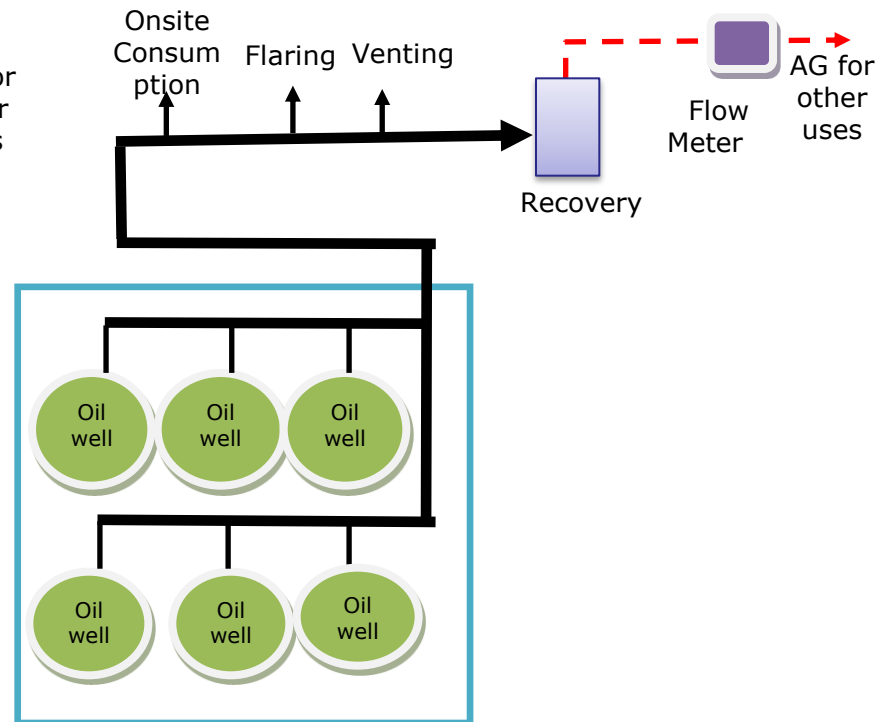
Gas metering just after the pretreatment is required, normal practice is to install flow meter prior to the use.

May be difficult to install flow meter after pretreatment due to space constraints or pressure requirement.

Issues in the Monitoring Project activity- AM0009



AM0009 (Ver.4) - Monitoring requirements before AG consumption



AM0009 (Ver.2) - Monitoring requirements after AG consumption

Future of Carbon Credits in Middle east

- Carbon capture and storage
- Renewable Energy
- Methane avoidance by MSW management
- Energy efficiency in the process industries
- Flare gas recovery in refineries

Thank You



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