

**EPPM P2 - W4: Workshop on Regulatory Framework for Carbon Capture & Storage (CCS) ; with focus on storage into geological formations, HSE, CDM and Flaring
Phuket, Thailand
29 June – 1 July 2010**

**MEMBER COUNTRY
PRESENTATION PHILIPPINES**



Department of Energy

Redentor D. Pascual

Neil O. Pesa

Outline

- **Current Status of CCS regulations & challenges**
- **CO₂ regulations (including flaring from Oil and Gas Activities)**
- **CO₂ sources & possible capture/technologies**
- **Potential areas for CCS**
- **Legislative barriers for CCS implementation & solutions**
- **Future of CCS in the Philippines**



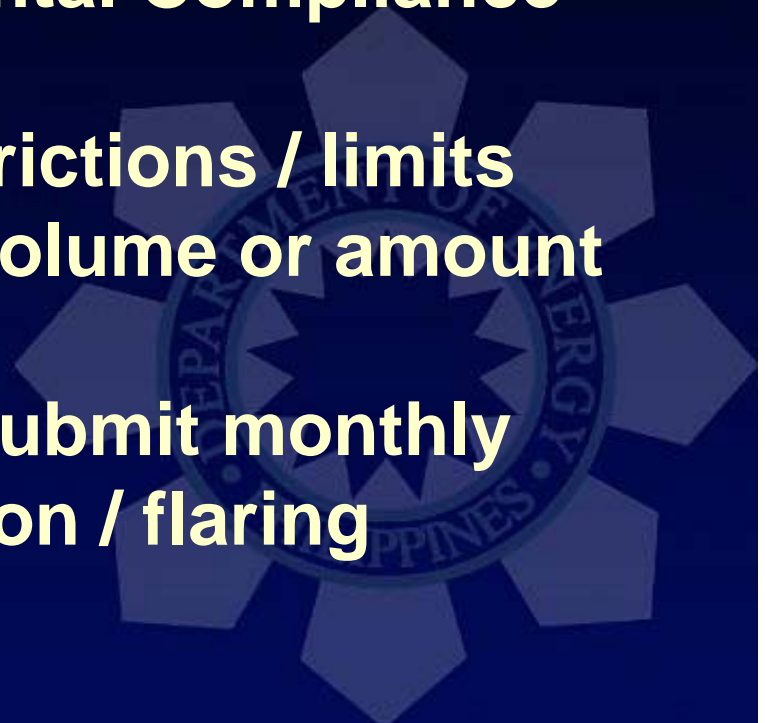
Current Status of CCS Regulations and Challenges

- **No current government regulation for CCS**
- **Expected Challenges:**
 - **Social perception / acceptability**
 - **High cost of upgrading infrastructure / processing facilities**
 - **Stability of geological formations**
 - **Viability in deepwater environment**
 - **Applicability to marginal fields**



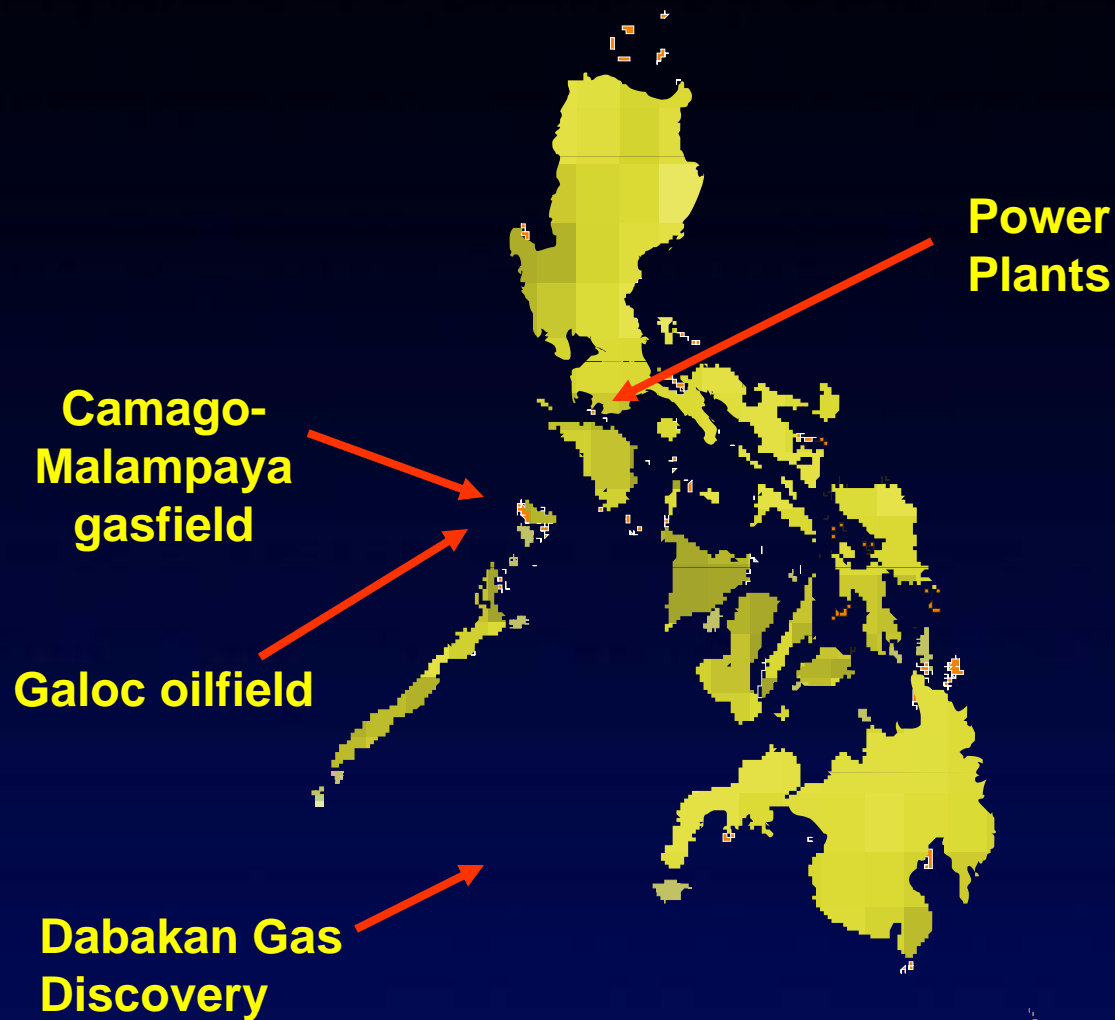
CO₂ Regulations (including flaring from Oil and Gas Activities)

- **No regulation governs CO₂ emission except that of the guidelines issued by the Environmental Management Bureau of DENR as stated in the Environmental Compliance Certificate (ECC)**
- **In the ECC, gas flaring restrictions / limits are stated but no specific volume or amount of gas to be flared**
- **Operators are required to submit monthly reports on their gas emission / flaring**

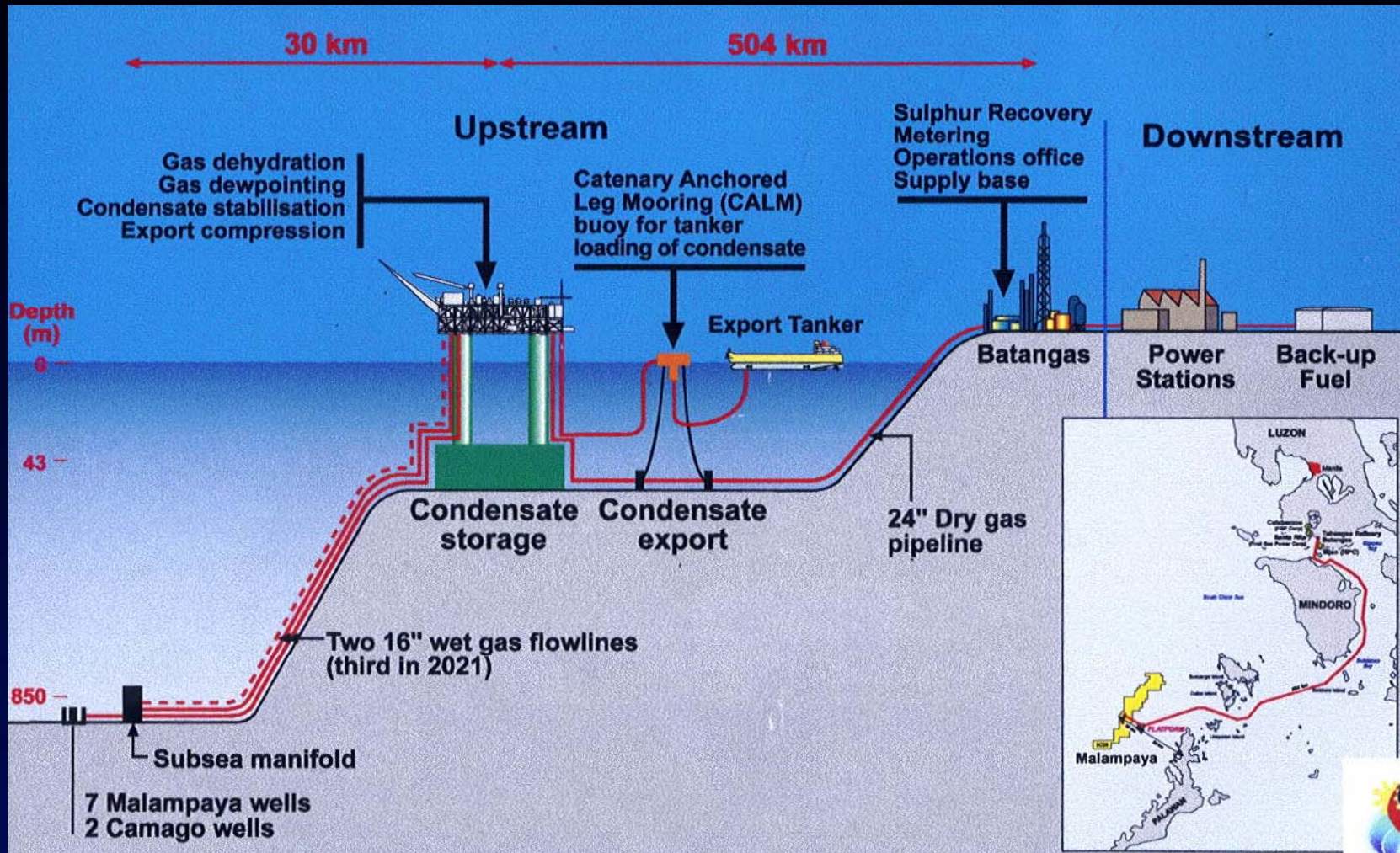


Possible CO₂ Sources & Potential Areas for CCS

- Power Plants
- Oil & Gas fields



MALAMPAYA DEEPWATER GAS-TO-POWER PROJECT



Legislative Barriers for CCS Implementation & Solutions

- **BARRIERS:**

- Technology acceptability & feasibility

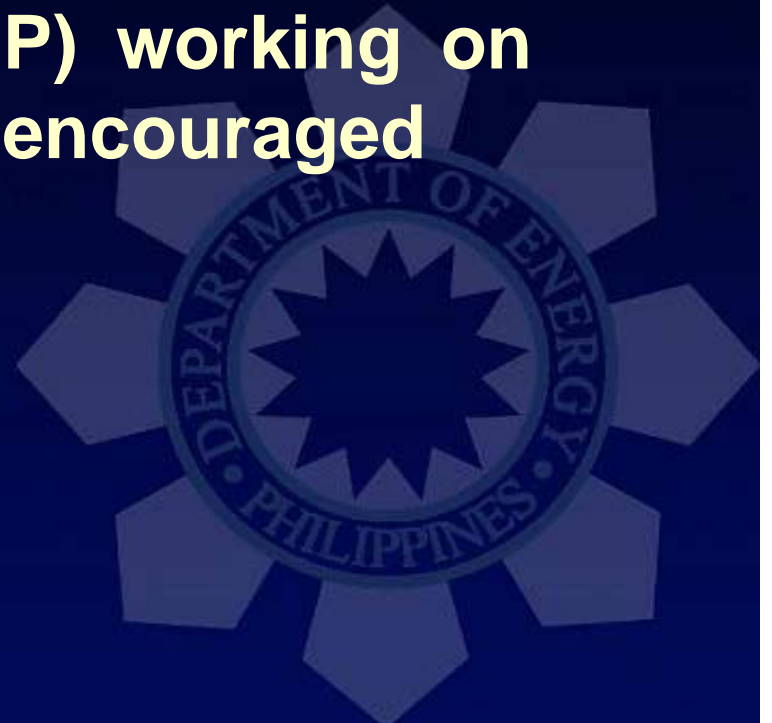
- **SOLUTIONS:**

- Pilot projects
- Cooperative projects with other countries
- Implement and adapt Clean Development Mechanism (CDM) Projects
- Grant additional fiscal incentives



Future of CCS in the Philippines

- **Research and development as well as pilot projects should be conducted**
- **Work cooperation with other countries and agencies (i.e. CCOP) working on CCS projects should be encouraged**



CONCLUSION

- **CCS Technology can be viable and feasible for the Philippines in the near future**



End of Presentation

**Thank you for your
attention!**

