

***“Utilization of Flared Gas for Power Generation”***  
**CDM PROJECT – A CASE STUDY**

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## **Clean Development Mechanism (CDM) projects**

**Kyoto Protocol provides a mechanism for emission reductions through trading of CERs.**

### **Basic Criteria:**

- **Project must reduce one of the six GHGs**
- **Meet additionality criteria i.e. not a business as usual investment**
- **Uses established technology**
- **No harmful impact on environment**
- **Approved by the host country**



## **Combined Cycle Power Plant Project in Qadirpur:**

- **Unique Project:**
  - **Utilizes permeate gas being flared at Qadirpur gas field**
  - **Conventional thermal power plant producing 223.8 MW**
  - **Project conceived as a CDM project**
  
- **Provides relief in the current power crises**



## **Conception of CDM Project:**

**Engro sorts allocation of poor quality “Permeate Gas” being flared since years**

### **Possible Energy Sources for a Typical Thermal Power Plant**

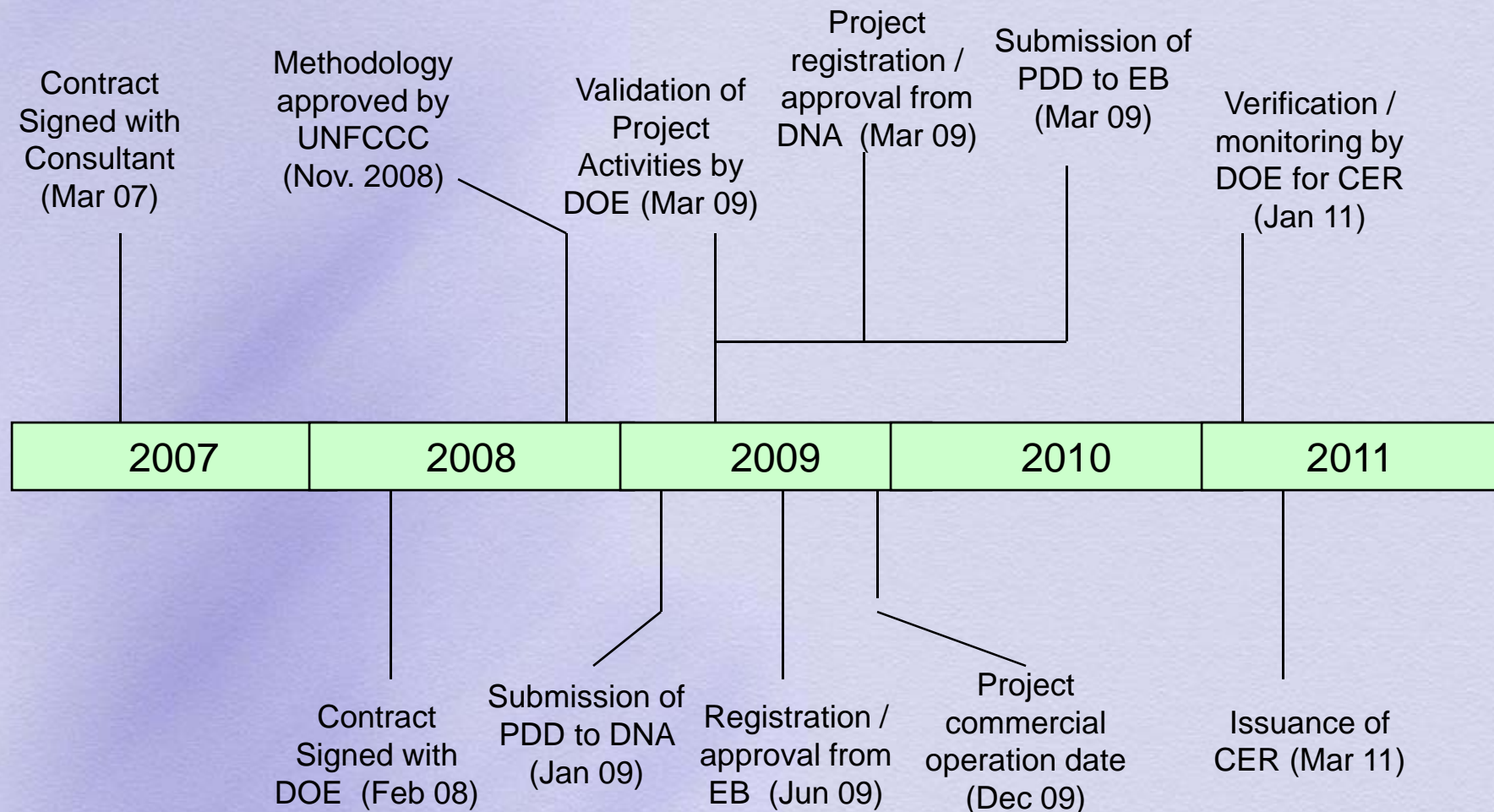
- **Clean Natural Gas (No Surplus Available)**
- **Residual Fuel Oil (Carbon Intensive Fuel)**
- **Coal (Carbon Intensive Fuel)**

### **Advantages of Utilization of Permeate Gas**

- **Avoidance of Coal / Furnace oil burning**
- **Avoidance of flaring of Permeate Gas**
- **Reduction in carbon emissions**
- **Saving of limited natural gas reserves of Pakistan**
- **Creation of jobs in area**



# Road Map of Engro's CDM Project:



## LEGENDS:

DOE = Designated Operating Entity    UNFCCC = United Nations Framework Convention on Climate Change  
PDD = Project Design Document    DNA = Designated National Authority    EB = Executive Board  
CER = Certified Emissions Reduction



## **Lessons Learnt:**

- **Work with reputable consultants**
  
- **Enhance organizational knowledge on:**
  - **Opportunities getting created to address climate change issues**
  - **Knowledge of Kyoto protocol & CDM methodology**
  
- **New investments plans to keep climate change issues in perspective**



## **Future Plans:**

**Engro is actively working on a few new CDM opportunities:**

- **Fertilizer business focusing on energy conservation**
- **Energy business focusing on alternate energy generation**
- **Foods business focusing on methane capture options at the dairy farms they are developing**



## Questions & Answers:

