



# World Bank and IFC Financing for CMM/CBM in Mongolia



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## What is the World Bank

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The World Bank was established July 1944, at a conference held in Bretton Woods, New Hampshire USA

- Its original mission was to help rebuild Europe and Japan after World War II and to finance the Marshall Plan
- Today – its mission is to fight poverty and improve living standards in the developing world



# Who Owns The World Bank



- It is owned by 185 member country Governments, of which Mongolia is one. The Minister for Finance for Mongolia is a member of the Board or Governors of the World Bank. The Governors establish World Bank Policy.
- The World Bank is a United Nations affiliated International Financial Institution (IFI) or Multilateral Development Bank



# The World Bank Group



## **International Bank for Reconstruction and Development (IBRD) and International Development Association (IDA)**

**Finances Governments and State Owned Enterprises**



## **International Finance Corporation (IFC)**

**Finances Private Sector Investments in developing countries**



## **Multilateral Investment Guarantee Agency (MIGA)**

**Provides Political Risk Insurance**

**Both IFC and the World Bank have offices in Ulaanbaatar**



# Why is the World Bank interested in financing CMM/CBM Utilisation



- Potential to reduce Green House Gas emissions and reduce the global impacts of climate change. Methane has 21 times the greenhouse gas impact of CO<sub>2</sub>
- Opportunity to increase power generation and gas utilization whilst at the same time achieving improvements in GHG emissions
- Potential to improve mining safety, particularly in underground coal mines by reduction in methane levels in mine workings and ventilation air
- CBM/CMM is a new and exciting area of financing for the World Bank



# World Bank Support to Government and State Owned Enterprises

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- The Bank can provide financing support to State Owned Enterprises (e.g. Erdenes MGL LLC) to undertake evaluations of the benefits of CMM/CBM utilization and support development of wellfields and collection pipelines, power stations and CNG/LNG facilities for gas utilization/sales.
- The Bank can also assist in assessment of the availability of Carbon Financing to assist in boosting project economics
- The Bank can provide Technical Assistance programs to support regulatory or technical skills development



# A recent Project Example: Shanxi CBM Utilisation Project



Project at implementation stage with the **Shanxi Energy Industrial Group Corporation (SEIG)**

- US\$100 million in WB financing as part of a \$200 million total project cost – no carbon financing
- Financing for:
  - 350 vertical wells
  - 135 km of collection pipelines
  - 3 CBM gathering stations
  - 16 km pipeline to LNG plant
  - Small modular LNG plant 4 trains (each 50,000tpa total 200,000tpa)
  - Technical Assistance for Shanxi Government to develop regulatory and institutional framework and technical skills



# IFC Engagement in CBM/CMM



- IFC can provide financing by way of debt or equity in CBM/CMM projects for private sector developers. This can be either at early stage exploration or at project development major capital expenditure stage. IFC can arrange carbon financing including pre-purchase of CERs and manage CER trading

## Project Example:

- IFC has current \$17.5 million investment in Far East Energy Corporation (FEEC)
- FEEC has 3 CBM blocks, 2 in Shanxi and one in Yunnan with estimated gas-in-place of between 12-21 Tcf
- In March 2009 Arrow Energy of Australia has also signed a JV to farm into one of the CBM blocks in Shanxi
- The IFC investment is supporting new exploration and production planning





# Carbon Financing for CBM/CMM Development



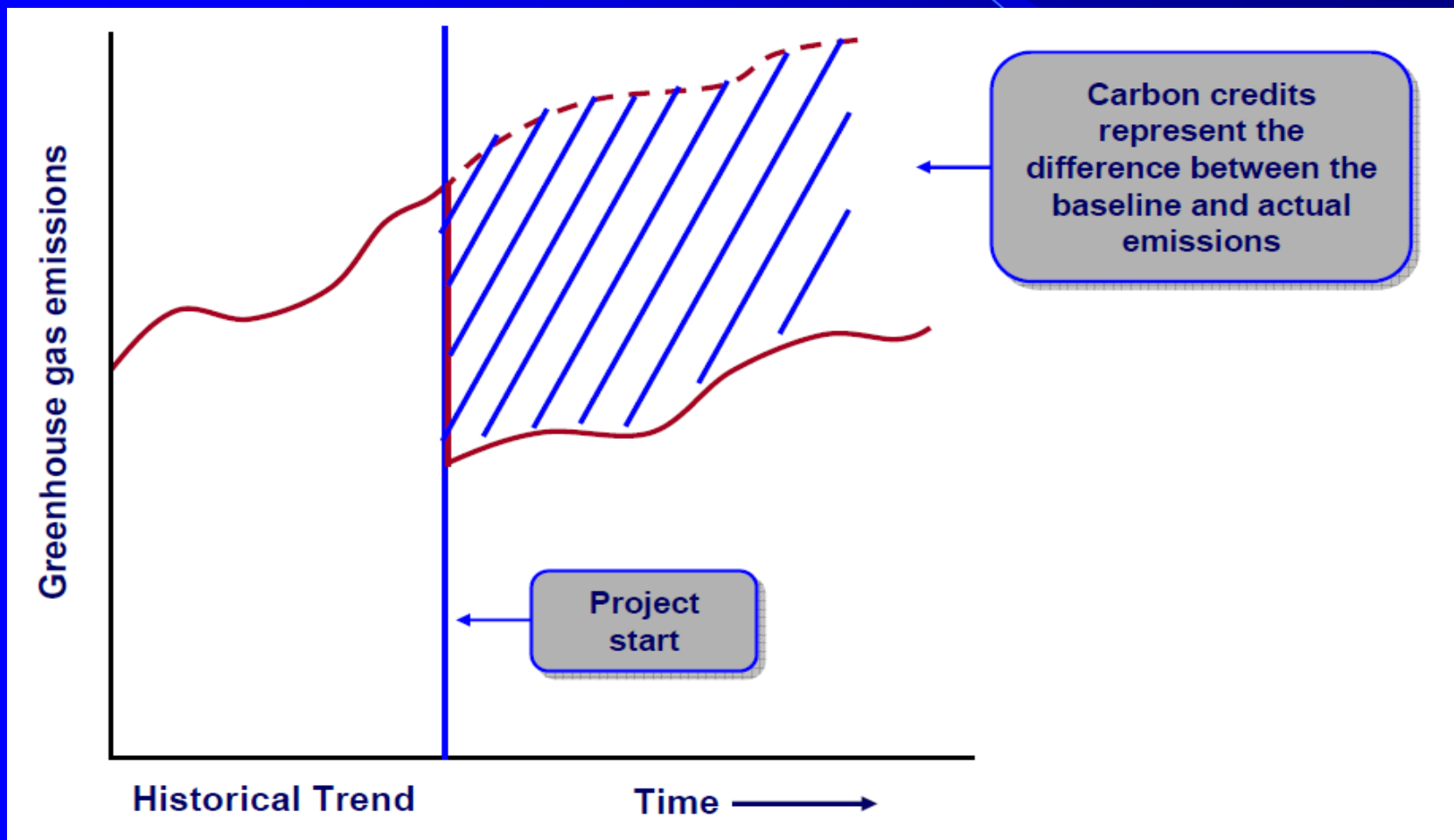
- Carbon financing under the Kyoto Protocol is available for CBM/CMM projects although it is a challenging process to secure such financing
- There are a number of CBM/CMM projects in the region (mainly in China) have now been registered under the Clean Development Mechanism (CDM). Several more are pending
- CDM financing is only available for demonstrated reduction in emissions below a “business as usual” base case



# What is Additionality?



Project implementation must show a measurable reduction in emissions below "Business as usual" to qualify for CDM





## How Does CDM Financing Work



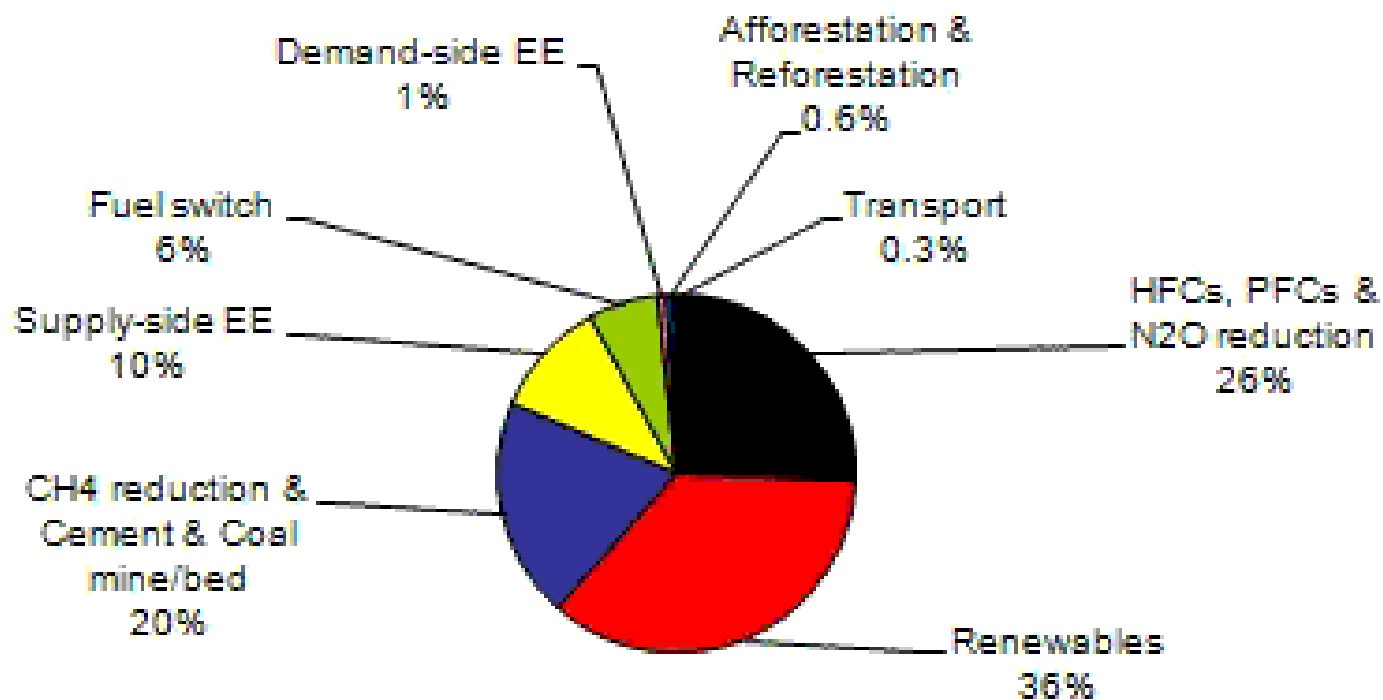
- CDM System designed to facilitate emissions trading between developed and developing countries
- System aimed at achieving project based emissions reductions in developing countries which accrue carbon credits (CERs) which are traded to emitters in developed countries (especially Europe)
- Under CDM 1 unit is called a Certified Emission Reduction or CER (1 CER = 1 tonne of CO<sub>2</sub> equivalent)
- Total CDM Projects in pipeline (as of August 2010) = 5365 (9.6 billion CERs valued today at over USD\$166bn)
- China, India, South Korea and Brazil account for approx 80% of CERs in pipeline
- CBM/CMM projects account for an increasing percentage of CERs in pipeline projects



## How many CERs?



### CERs expected until 2012 from CDM projects in each sector



While 60% of the CDM projects are renewables, they take 36% of the CERs. Energy efficiency takes 10% of the CERs for Supply-side EE and only 1% for Demand-side-EE



# Challenges for Carbon Financing for CBM/CMM



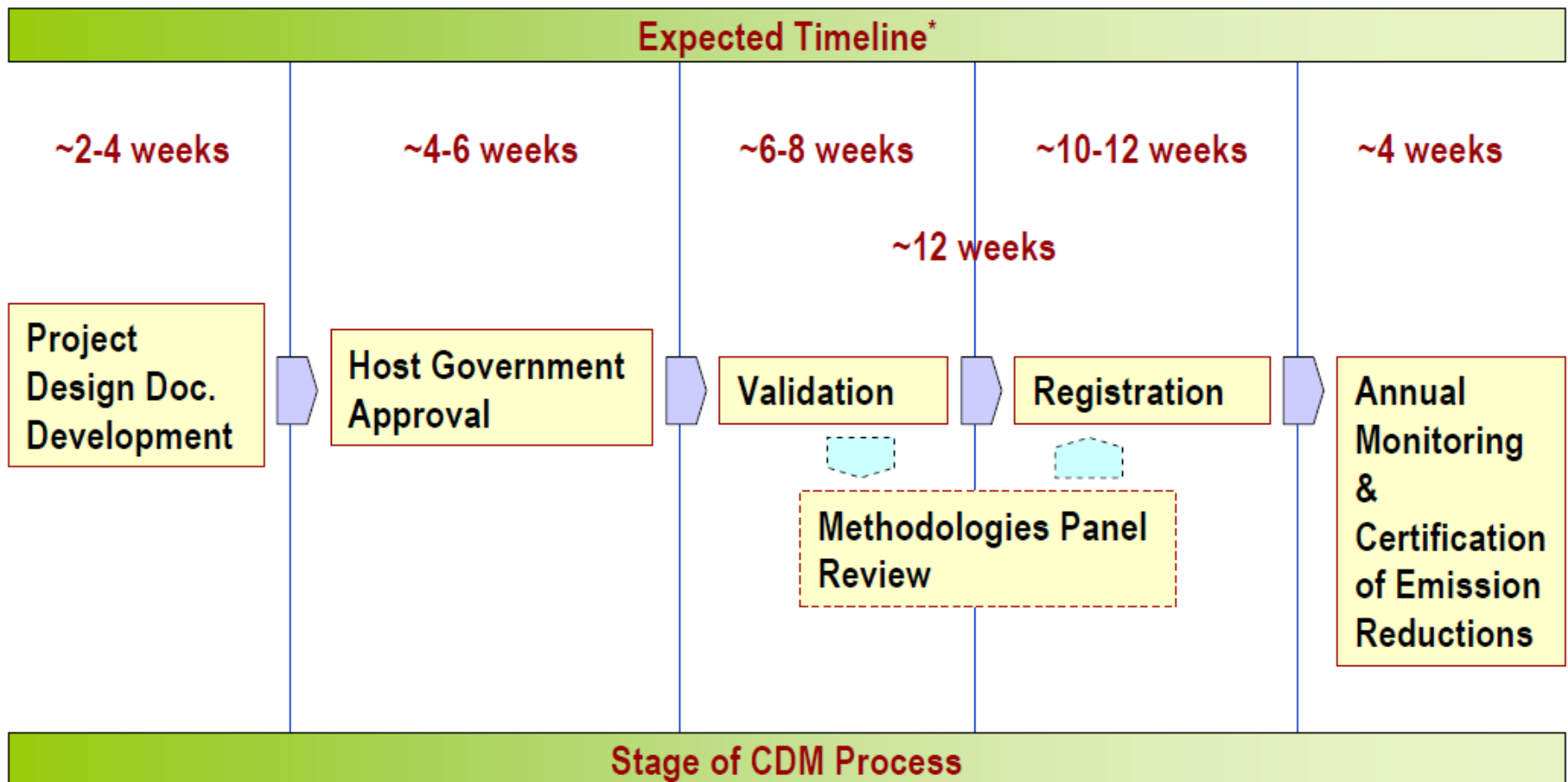
- 1) Coal Bed Methane (where gas is specifically drilled for in non mining areas) does not qualify as “additional” under CDM because the CDM Executive Board deems that this gas would never have been released. A very strong case needs to be made for CBM drawn from areas immediately in advance of either underground or surface mining. CMM/VAM is a much easier case to make given that the methane would otherwise be vented
- 2) Most coal mining companies lack gas collection, piping and utilization/power station operational expertise
- 3) CDM procedures have created investment uncertainty through its slow and very detailed review of each project



# Challenges for Carbon Financing for CBM/CMM



Project CDM approval takes a long time .....





## Are there other Carbon Markets outside the CDM?



- Joint Implementation (JI) is a similar trading scheme to CDM and Emissions Reduction Units (ERUs) are traded
  - Also requires a reduction in emissions below “business as usual”
  - Host countries mainly Russia and former Eastern European States
- Voluntary Emissions Reductions (VERs) is a new voluntary emissions trading market which is beginning to gain popularity designed by the International Emissions Trading Association (IETA) and supported by non-profit organizations such as WWF and The Climate Group
- All markets are based on similar principles



## How can the World Bank Group help?



- World Bank can assist Governments and State Owned Enterprises to design and finance CMM/CBM projects with World Bank debt financing
- IFC can provide investments of both debt and equity into private sector development projects in CBM/CMM
- Both the Bank and IFC can provide advice and assistance to project developers to secure Carbon Finance for CBM/CMM projects and IFC offers CER purchase and trading services





## Contact us

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**Thank You**