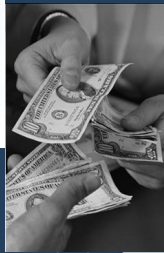


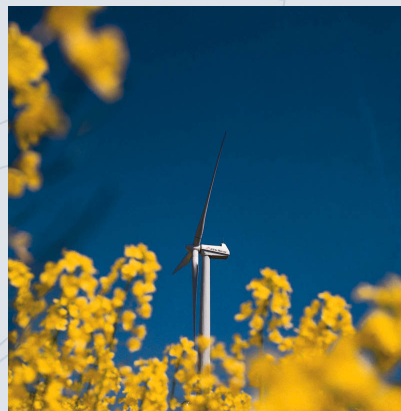
Carbon credits

An additional revenue stream: Status and Prospects



Carbon credits

- Carbon credits are reduction in emission of GHGs caused by a project
- 1 tCO₂ is the equivalent of 1 carbon credit (CERs)
- The six identified GHGs are:
 - Carbon dioxide
 - Methane
 - Nitrous oxide
 - Perfluorocarbons
 - Hydrofluorocarbons
 - Sulphur hexafluoride



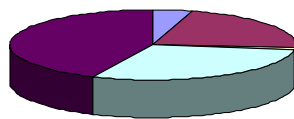
CDM and India

- 200 projects registered (as on 1st June'06)
- 59 Indian projects have been registered
- Projects have accumulated 90,00,000 CERs so far
- Projects based on renewable energy large in number
- CERs have been issued to around 10 Indian projects
- Strong support from the MoEF
- Lack of credibility of Indian projects in the international market – prices offered are lower



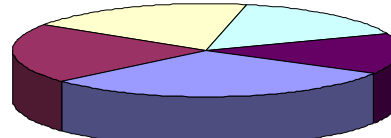
India vs. The Others

Total No. of Registered Projects



China (9)	Brazil (43)
Republic of Korea (3)	India (59)
Others (86)	

Total no. of CERs



China (29.9%)	Brazil (20.9%)
Republic of Korea (19.9%)	India (15.9%)
Others (14.13%)	



EUAs and CERs

- **Difference between the EU-ETS and CDM**
 - Commodity : EUAs Vs CERs
 - Trading : European nations Vs Annex I & Non-Annex I nations
 - Delivery risk : Low in EU-ETS & High in CDM
- **Buyers, brokers and traders**
 - Buyers are generally governments of various Annex I countries
 - Various brokers in the market
 - Online Exchange
- **The ERPA**
 - International Emission Trading Association – Sample ERPA
 - Minimum amount of CERs
 - Failure to transfer / deliver minimum amount
- **Falling prices**
 - The allowance prices had reached around Euro 30
 - Slipped to 50% and even lower



Investors' Perception

- **Tremendous potential in the sector**
- **CDM definitely a bonus over and above business as usual- foreign exchange**
- **UK and US trading permits for domestic industries- CDM is India's equivalent**
- **CDM benefits can cover O&M cost on a machine to machine basis**
- **Promotes green image of investors**



Some concerns...

- Concern over sharing of CER income with State Utility
- Low confidence about success of CDM projects especially wind projects
- Concern over generation variability
- Buyer contracts' tenure
- Ambiguity about fees charged by UNFCCC
- As the carbon market matures and transactions actually occur, there will be greater confidence amongst all stakeholders



Post Kyoto?

- The first commitment period of Kyoto Protocol expires on 2012
- Possibility of “emission-cap” on India for the next phase of the protocol
- Number of regional, national and interest-specific efforts likely to emerge to achieve the common objective
- Similar markets already exist for the SO_x in the United States



Thank you

Pushkala Lakshmi Ratan,
Carbon Advisory Services
NEG Micon India Pvt. Ltd.
Chennai – 600 119.
pratan@india.neg-micon.com
044-24505100

