

SGS Climate Change Programme

WHEN YOU NEED TO BE SURE

SGS

- **Under the Kyoto Protocol Annex 1 Parties (developed countries and economies in transition) have absolute caps on emissions of greenhouse gases (GHG)**
- **The Clean Development Mechanism (CDM) is a project based mechanism under the Kyoto Protocol**
- **The CDM allows eligible projects to generate emission reductions that can be used to offset excess emissions by Annex 1 Parties**
- **The CDM (and other flexibility mechanisms) are based around trade – this works because GHG emissions have a global impact – so it does not matter where GHG emissions arise or where they are reduced**
- **So we can use the market to allocate the money to reduce emissions most effectively**

What are the eligibility criteria for CDM projects?

- **These are defined in Decision 17/CP.7, also known as the Marrakech Accords or the “Modalities and Procedures for a Clean Development Mechanism”**
- **They include, amongst other things:**
 - **Project activities must reduce GHG emissions below the baseline**
 - **The baseline is the scenario that reasonably represents the emissions of GHG that would have occurred in the absence of the proposed project activity**

What are the eligibility criteria for CDM projects?

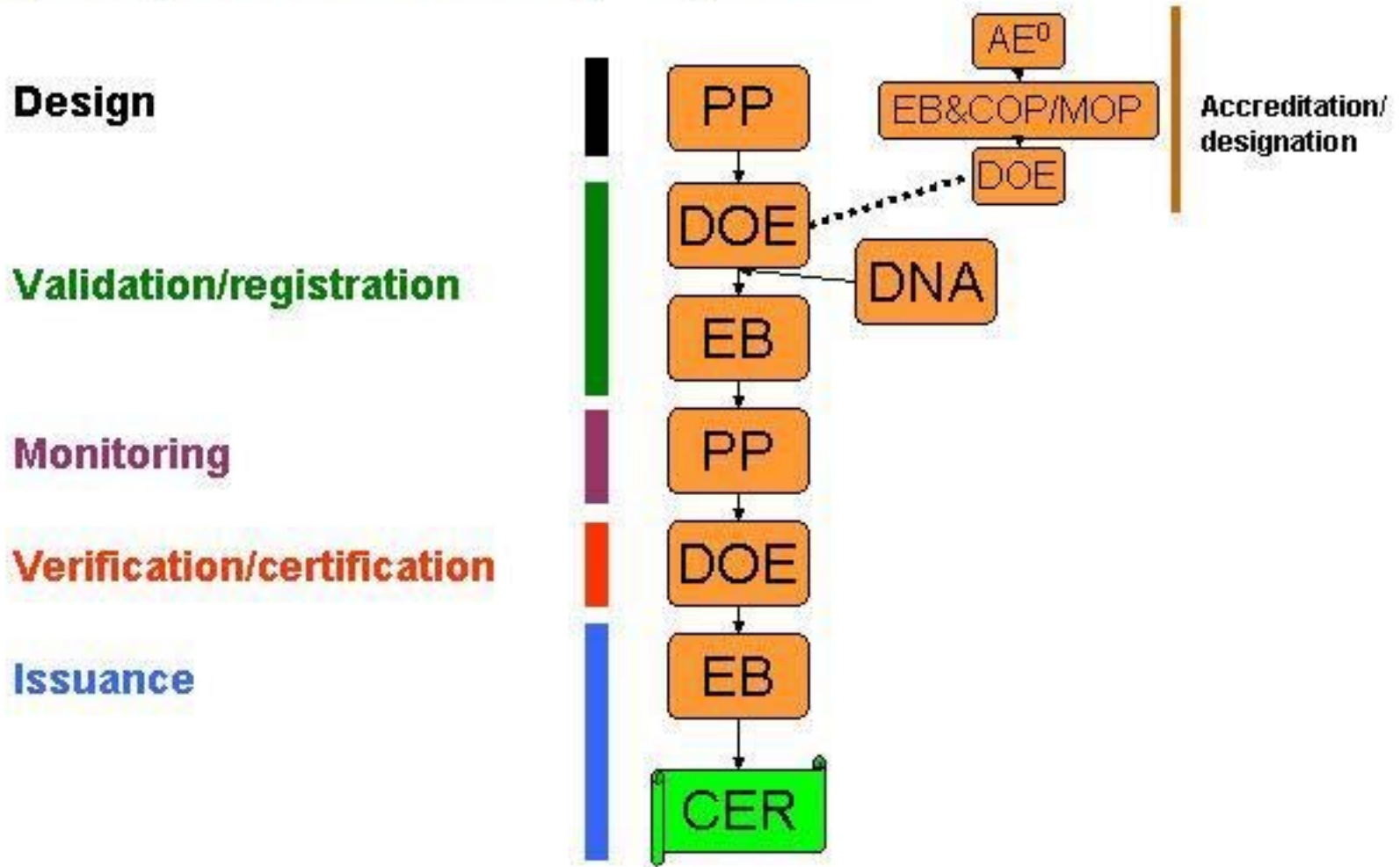
- **Projects must define the baseline using an approved methodology**
 - **Projects must be described using the approved Project Design Document (PDD)**
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- **Projects must be **VALIDATED** against these criteria by a Designated Operational Entity (DOE), after which they may be registered as a CDM project**

- **Manufacturing Sector have 12 approved methodologies**
 - **Large Scale (AR, AR-AM)**
 - **AM0007,014,024,032,033,036,040 and 041**
 - **Small Scale (AMS, AR-AMS)**
 - **AMS II-D**
 - **Consolidated**
 - **ACM 0003,0005 and 0009**

POSSIBILITIES OF CDM PROJECTS

- **Energy Efficiency (Remember that Improvement in Energy Efficiency on account of reducing losses due to negligence or bad-practices will not qualify under CDM)**
- **Waste Heat Recovery**
- **Process Improvement Leading to Energy Conservation**
- **Fuel Replacement / Fossil Fuel Switch**

CDM project activity cycle



- DOE is extended arm of CDM Exécutive Board - link between EB and Project Developer
- Validation and request for registration of a proposed CDM project activity.
 - Submission of new methodologies
- Verification of emission reductions of a registered CDM project activity and requests the EB to issue Certified Emission Reductions accordingly.
- Validation and Verification to be done by different DOEs (exception: small scale CDM Projects)

- **Project developers can implement the project and the approved monitoring plan in order to determine:**
 - **Baseline emissions**
 - **Project emissions**
 - **And by subtraction, the emission reductions**

- **The Monitoring report must then be VERIFIED by a different DOE*, after which the DOE may request the issuance of the CERs**

Following registration....

- **Only after issuance can the CERs be transferred to buyers**

- *** except in the case of small scale projects where the same DOE can perform both activities**

What kind of projects are possible?

- **Projects that reduce emissions of energy related CO₂**
- **CO₂ emissions from raw material use**
- **Non-CO₂ GHG emissions from industrial activities, land fill, agriculture etc**

What kind of projects are possible?

- **Non-CO₂ GHGs are methane, nitrous oxide, PFCs, HFCs and sulphur hexafluoride**

- **Typical examples include:**
 - **Construction of renewable energy facilities in a market dominated by thermal power**
 - **Fuel switch from coal to gas**
 - **Land fill gas capture and flare / utilisation**
 - **HFCs or N₂O abatement**

How do I go about making a project...?

- Visit www.cdm.unfccc.int and look at some of the projects under “Project Activities” to see what others are doing
- Review your own commercial activities – the more GHG you emit or the more energy or raw materials you consume, the greater the potential to improve
- Identify any activities that would reduce your GHG emissions that you are not legally obliged to do, and that are not current common practice within your industry

How do I go about making a project...?

- Evaluate the magnitude of the potential emission reductions
- Identify the reasons why you have not already done this – these are the barriers that stop the project activity from being the baseline
- Consider whether the potential revenues from the sale of CERs might be enough to help you overcome these barriers

How do I go about making a project.... (cont)

- **If you have some possible ideas then you have two options:**
 - **Consider developing the project yourself.**
 - **Talk to a consultant about it.**

How do I go about making a project.... (cont)

- **You should also:**
 - **Contact your Designated National Authority (you can get the details from the CDM web-page) to see if they have any capacity building activities / find out who is active in CDM in your country**
 - **Consider a training course in CDM Project Design**
 - **Learn more about CDM from the UNFCCC web-page and other schemes / funds**
 - **Contact local SGS office for more information**

Projects Accomplished

- **Haidergarh Bagasse Based Co—generation project.**

Generate 58 MW power from the biomass residue.

- **Methodology: ACM 0006**

Projects Accomplished

- **GMR Sugar Industries**
- **bagasse Based Co—generation project.(Andhra Pardesh)**
- **Generate 16 MW electricity from co-generation plant**
- **During season** **bagasse**
- **Off Season** **Jute sticks, cotton stems,
Cane thrash, groundnut
shells**

- **Methodology: ACM 0006**

Projects Accomplished

- **Mawana Sugars Ltd**
 - **bagasse Based Co—generation project.**
 - **Generate 28 MW electricity from co-generation plant.**
 - **17 MW exportable.**
 - **Boiler capacity 90 tonne per hour**
-
- **Methodology: ACM 0006**

Projects Accomplished

- **Mankapur Chinni Mills Uttar Pradesh**
 - **bagasse Based Co—generation project.**
 - **Generate 34 MW electricity for in house requirement.**
 - **Surplus to be sold to state grid.**
 - **Operational during the season for 165 days**
 - **Operational during non cane season for 170 days with saved biomass**
-
- **Methodology: ACM 0006**

Projects Accomplished

- **Bannari Amman Sugars** **Tamil Naidu Karnataka**
 - **bagasse Based Co—generation project.**
 - **Generate 20 MW electricity**
 - **Surplus to be sold to state grid.**
 - **Operational during the season for 165 days**
 - **Operational during non cane season for 170 days with saved biomass**
-
- **Methodology: ACM 0006**

Projects Accomplished

- **Upper Ganges Sugar Industry** **Tamil Naidu Karnataka**
 - **Methane Recovery and Power generation In Distillery.**
 - **An aerobic treatment of High BOD/COD spent wash in digester.**
 - **Methane capture**
 - **Combustion of Methane supplemented by biomass fuel for power generation.**
 - **Power generation capacity ~ 3 MW**
-
- **Methodology: AMS 1.C**

Projects Accomplished

- **Ganpati Sugar Industries** **Andhra Pradesh**
 - **Bagasse as primary fuel and other biomass as secondary fuel.**
 - **Steam and electricity will be produced by co generation**
 - **Technology used Steam-Rankin cycle involves heating of pressurised water.**
 - **Power generation capacity ~ 15 MW**
-
- **Methodology: AMS 1.D**



**10'300 employees
in the Americas**

**20'500 employees
in Europe,
Middle East
& Africa**

**12'400 employees
in Asia/Pacific**

With more than 43'000 employees, SGS operates a network of over 1'000 offices and laboratories around the world.

Testing, Inspection, Verification



Agricultural Services



Automotive Services



Consumer Testing Services



Environmental Services



Industrial Services



Life Science Services



Minerals Services



Oil, Gas & Chemicals Services



Systems and Certification Services



Technical Staffing Services

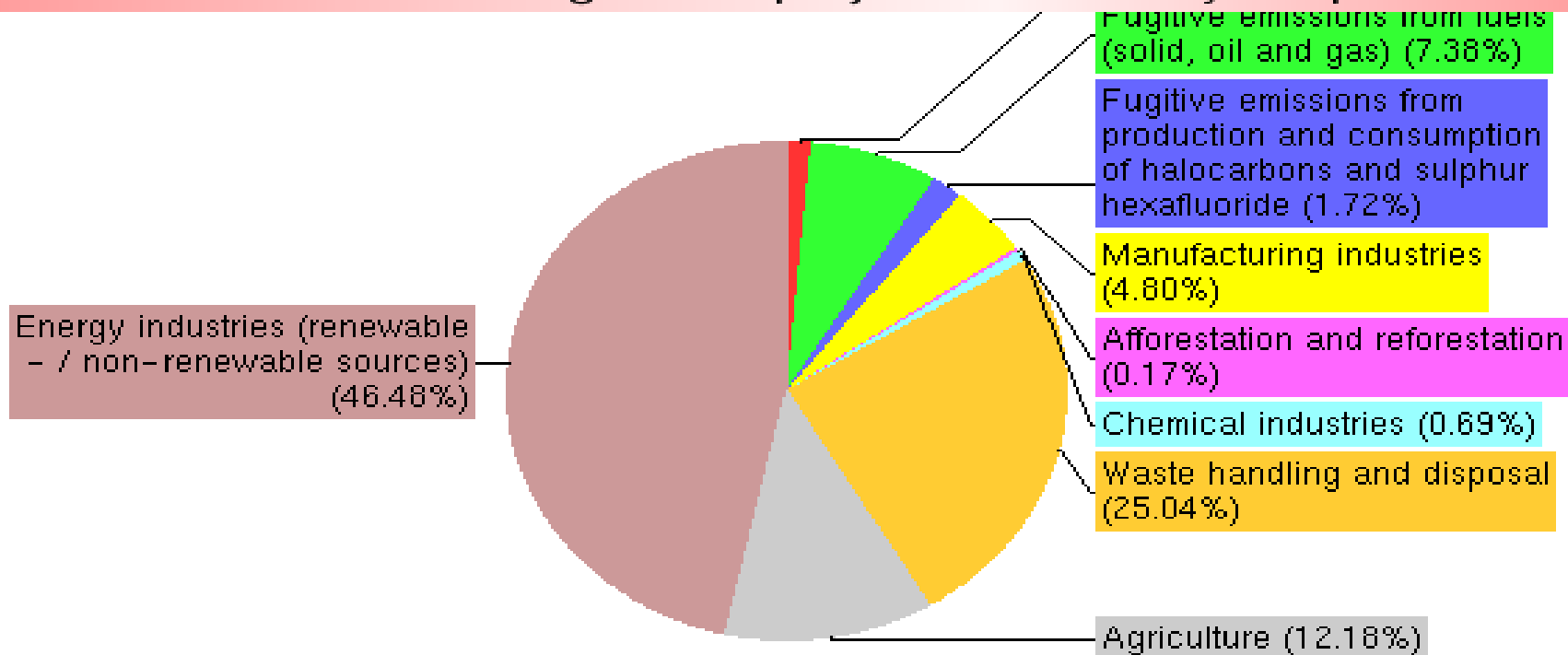


Trade Assurance Services

- **Carbon offset verifications established in 1997 by SGS UK Ltd.**
- **SGS accredited for**
 - **CDM (DOE),**
 - **JI**
 - **EU Emissions Trading Scheme (25 countries),**
 - **UK Emissions Trading Scheme,**
 - **California Climate Action Registry,**
 - **Chicago Climate Exchange**
 - **and soon under ISO 14064...**
- **Objective is to be an accredited service provider to all credible GHG emission trading schemes and registries**

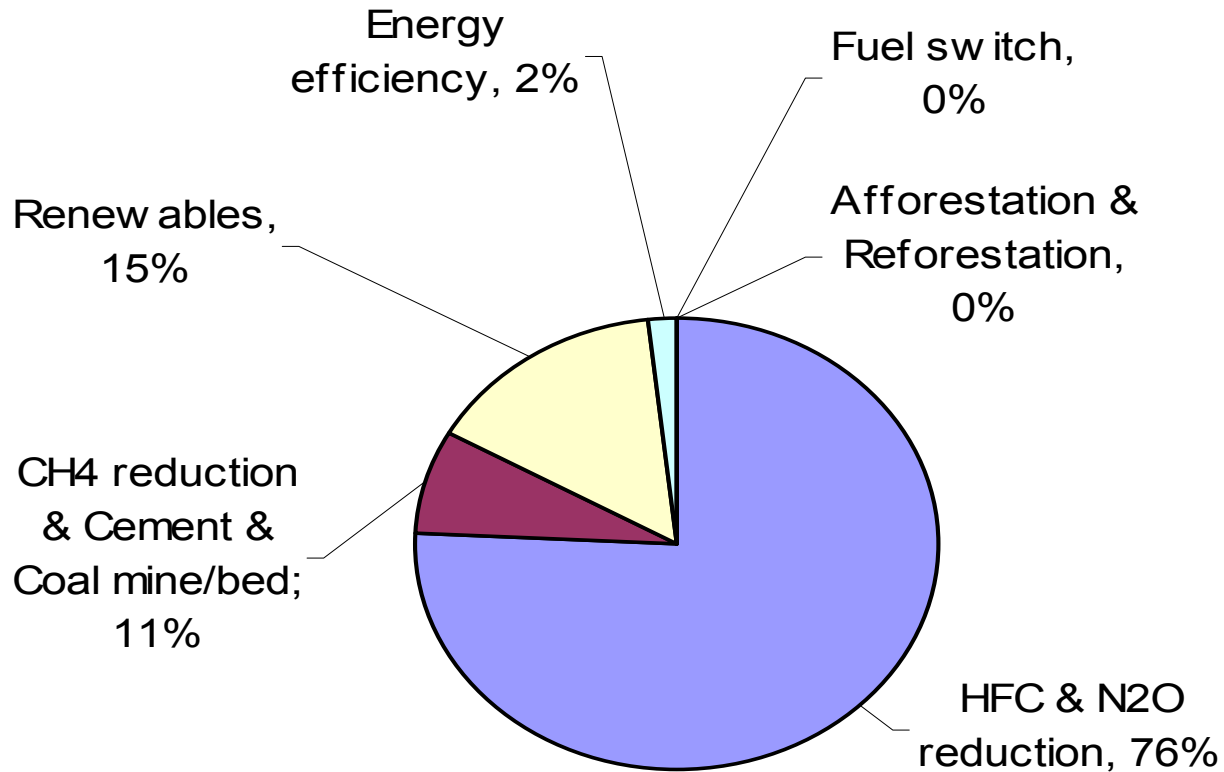
- SGS is one of the leading global provider of greenhouse gas validation and verification / certification services
 - 6.9 million CER's has been certified by SGS; which is **41% of total CER's issued till 6th October 2006**
 - We are working on more than **155 validation and 52 verification projects till 25th Nov.2006.**
- SGS is accredited as a validator and verifier for sectoral scope 1-7,10-13, 15 of CDM/ JI projects and actively pursuing accreditation for the other sectoral scopes.
- SGS has trained resources for CDM in India, China, South East Asia, Latin America, Africa
- SGS India has been actively involved in validation and verification of CDM projects in Asia-Pacific region
- In house expertise: Metering, Calibration, Laboratories, Industrial Inspection, Environmental Impact Assessments, Air and Water quality, Land contamination, ISO 14001 certification, EMAS Verification.....

Distribution of registered project activities by scope



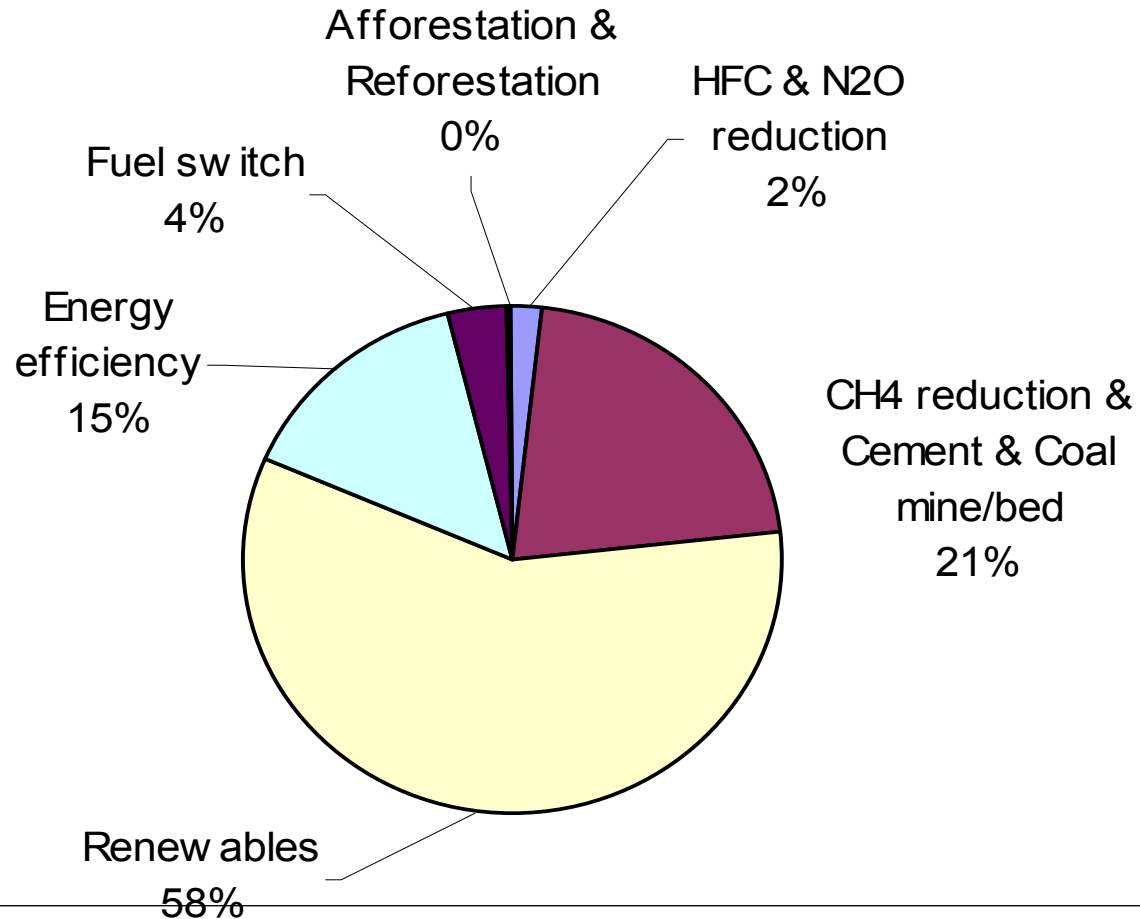
<http://cdm.unfccc.int> (c) 27.11.2006 17:21

CERs issued in each sector



Source: UNFCCC Data as on 30th September 2006

Number (%) of CDM projects in each sector



Source: UNFCCC Data as on 30th September 2006



For More Information

- **Please Visit: *www.climatechange.com***

- **Contact**

Climate Change Division

THANK YOU