

# Carbon Credits, an important instrument in the financial market

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# Outline of Presentation

- I. Carbon Credits and Markets Overview
- II. CERs & CDM Summary
- III. Carbon Business Outlook





# Part I Carbon Credits and Markets Overview



## Carbon Credits & Markets Overview (1)

- ❑ Carbon credits are trade-able financial instruments.
- ❑ Carbon Credits are issued for GHG reduction and sequestration.
- ❑ One Carbon Credit is equal to one ton of Carbon Dioxide reduced, or sequestered, or in some markets Carbon Dioxide equivalent.



## Carbon Credits & Markets Overview (2)

Currently we have four major types of Carbon Credits on the markets:

- EUAs:** European Union Allowances of the EU Emission Trading Scheme  
EU ETS =compliance market of the European Union
- ERUs:** Emission Reduction Units of the mandatory market mechanism  
Joint Implementation (JI) for the Kyoto Protocol compliance market
- CERs:** Certified Emission Reductions of the mandatory market mechanism  
CDM for the Kyoto Protocol compliance market
- VCUs/VERs:** Voluntary Carbon Standard credits, syn. Voluntary Carbon  
Units and Voluntary Emission Reductions of the voluntary market  
mechanisms for the voluntary markets; often **pre-CDM Credits** (pre=  
before registration at CDM Executive Board)



## Carbon Credits & Markets Overview (3)

- ❑ Carbon Credits are traded on Carbon Markets.
- ❑ The Carbon Markets are full of diverse players: by end of February 242 buyers from 39 countries, 345 sellers from 74 countries and 703 service providers from 68 countries were listed alone at the 'CDM Bazaar'= the largest web-based facility which serves as a platform for information exchange on CDM project opportunities.



## Types of Carbon Credits: EUAs of EU ETS (1)

- ❑ European Union Allowances (EUAs) are the Carbon Credits which are allocated in the Emissions Trading Scheme of the European Union.
- ❑ The EU ETS came into effect on January 1, 2005. The EU ETS second phase began Jan 1 2008 and ends Dec 31 2012, together with the first commitment period of the Kyoto Protocol.



## Types of Carbon Credits: EUAs of EU ETS (2)

- ❑ Under the EU ETS the EU national governments agreed on national emission caps. The countries allocate emission allowances to their industrial operators according to national allocation plans. The number of allowances handed out to an operator  $<$  the annual emissions of the plant, whereby the number of allowances in year 2  $<$  the number of allowances in year 1.
- ❑ Each operator is required to annually retire the number of allowances which represents the annual emission of his plants. The number will be equal to the sum of EUAs, which are given out for free + other certificates, which have to be purchased from the Carbon Markets. That's why we talk about 'cap and trade'.



## Types of Carbon Credits: EUAs for EU ETS (3)

- ❑ Through the Linking Directive of the EU parliament it is made possible for operators to also use a certain amount of Kyoto certificates (=CERs/ERUs) in order to cover their emissions.
- ❑ The EU ETS currently covers more than 11,000 installations in the energy and industrial sectors which are collectively responsible for close to half of the EU's emissions of CO<sub>2</sub> and 40% of its total GHG emissions. It is the largest mandatory emission trading scheme in the world and represented for example 28 billion Euros of the 40 billion Euros traded in Carbon Credits worldwide in 2007.



## Types of Carbon Credits: ERUs

- ❑ Emission Reduction Units are the Carbon Credits created under Article 6 of the Kyoto Protocol, Joint Implementation (JI).
- ❑ In other words: ERUs are the Carbon Credits that originate from GHG reduction projects in countries with an emission reduction or limitation commitment under the Kyoto Protocol and are in compliance with the requirements of the mandatory market mechanism Joint Implementation.



## Types of Carbon Credits: CERs

- ❑ Certified Emission Reductions CERs are the Carbon Credits that originate from projects in developing countries which are compliant with the requirements of the Kyoto mechanism CDM.
- ❑ CERs are issued by the UNFCCC for real, long-term and measurable reductions of GHG emissions by Clean Development Mechanism (CDM) Projects under Article 12 of the Kyoto Protocol.
- ❑ As of February 2011 553 Mio CERs have already been issued by UNFCCC to total 956 CDM Projects.



## Types of Carbon Credits: VERs (1)

- ❑ The Verified Emission Reduction VER is the most popular type of carbon credit used to offset emissions around the world voluntarily.
- ❑ VERs are Carbon Credits for the Voluntary Carbon Market and are issued by independent bodies for reduction of GHG emissions in projects that fall outside of CDM and JI.



## Types of Carbon Credits: VERs (2)

- ❑ Voluntary standards may be just as strict as under the CDM (such as with the Kyoto-compatible Voluntary Carbon Standard VCS), or even stricter such as the VERs Gold Standard for RE & EE projects, or not as stringent.
- ❑ However the market will always reflect a poorer price for a VER that has been issued to a 'low or difficult to verify' standard.
- ❑ Many companies already use the voluntary market mechanisms and sell carbon credits to commercial and individual customers who are interested in lowering their carbon footprint on a voluntary basis.





# Part II CERs and CDM Summary



## CERs and CDM Summary (1)

- ❑ CERs are the Carbon Credits generated by CDM projects.
- ❑ CDM is the mandatory market mechanism that allocates a monetary value to GHG emission reductions originating from projects in developing countries.
- ❑ CDM can be implemented as Project, Bundle or Programme (PoA).
- ❑ CDM projects have to meet the eligibility criteria of the UNFCCC Executive Board.



## CERs and CDM Summary (2)

- ❑ CDM has three major functions:
  - CDM enables Annex- I countries to meet the Kyoto targets,
  - contributes to sustainable development processes in Non Annex- I countries, and
  - incentivizes investment by increasing the profitability of projects.
  
- ❑ In February, 103 new CDM projects entered the pipeline. The largest of them is 'Dapein Hydropower Project in Myanmar' which will deliver 1.1 million CERs by 2012.



## CDM Promotion Template = Guide For Identifying Potential CDM Projects to Shorten Search Time and Lower Costs (1)

- 1) Does the proposed project on Renewable energy/energy efficiency reduce GHG in the atmosphere in a real, long-term and measurable manner? In what way?
- 2) What other project scenario(s) may happen in the absence of the proposed project?



## CDM Promotion Template = Guide For Identifying Potential CDM Projects to shorten Search Time and Lower Costs (2)

- 3) Are there GHG emissions associated with the other project scenario?
- 4) Will the emissions associated with this other project scenario be greater than the emissions of the proposed project?
- 5) Is the GHG reduction brought about by the proposed project worthwhile to pursue, or is there an easier way without CDM?





# Part III Carbon Business Outlook



## Carbon Business Outlook (1)

- ❑ COP17/MOP7 is to be hosted by Durban, South Africa, from November 28 to December 9, 2011. We expect clarity on the future of the Carbon Mechanisms on policy level.
- ❑ The vision underlying the 2 year CDM business plan of the EB is that the CDM 'continues beyond 2012 to be the primary mechanism for generating emission reductions and removals in developing countries'.
- ❑ Creation of Carbon Funds for bundling of Small Scale Projects, or design of CDM Programmes (PoAs) as an asset and risk management tool is among the next steps on national level.



## Carbon Business Outlook (2)

- ❑ Low Carbon development path and low carbon economies are the future.
- ❑ Broader acceptance of Carbon Credits as new financial commodity among Financial Institutions is needed.
- ❑ Creation of new Investment Vehicles with CDM orientated guidelines are in progress. Currently, a sectoral crediting mechanism and measurable, reportable and verifiable Nationally Appropriate Mitigation Actions (MRVable NAMAs) are hot issues.
- ❑ Sustainable Carbon business is the future.
- ❑ Carbon asset price will be linked to SD impact.



THANK YOU.

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