## Overview of Kyoto Protocol Market Mechanisms

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#### **Overview**



- Brief summary of the Kyoto Protocol
- Overview of the Clean Development Mechanism, as implemented
- How do CDM CERs move to market?
- CER contract risk mitigation

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## **Kyoto Protocol to UNFCCC**

- Commits parties to an average 10% reduction below 1990 levels of CO<sub>2</sub>e in the 2008-2012 compliance period
- Entered into force February 2005
- Country-specific emission allowances, deposited in national registries
- Country targets are met by controlling emissions, or securing additional allowances through the joint implementation (JI) and clean development mechanism (CDM) programs, as well as land-use, landuse change, and forestry projects (LULUCF)
- Several "flavors" of emission units (one tonne CO<sub>2</sub>e per unit):
  - AAUs: assigned amount units (allowances allocated to Annex I parties)
  - RMUs: removal units (LULUCF project credits in Annex I parties)
  - ERUs: emission reduction units (joint implementation project credits)
  - CERs: certified emission reduction units (clean development mechanism credits)
- Each type of emission unit is tradable between parties and may be used to "cover" emissions of GHGs
- United Nation's Kyoto Protocol webpage is at <a href="http://unfccc.int">http://unfccc.int</a>

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### **CDM Project Cycle**

- Up to \$12 billion will flow from Annex I to developing countries under the CDM, with 1.14 billion CERs in the pipeline through 2012.
- CDM Project Participants
  - Host country
  - Investor country
  - Project participants
- CDM Project Requirements
  - Assists host country in achieving sustainable development
  - Provides real, measurable, long-term benefits related to the mitigation of climate change
  - Delivers emission reductions that are additional to those that would occur without the project
  - Is eligible (by reference to approved methodologies) for CDM registration





#### CDM Project Elements

- Project idea note ("PIN")
- Project design document ("PDD")
- Letter of approval
- Validation
- Registration
- Monitoring
- Verification and Certification
- CER issuance
  - Sources: Kyoto Protocol Art. 12 and Marrakech Accords CDM Modalities



#### **How Do CERs Move to the Market?**

- The contract used to purchase CERs is referred to as an ERPA, or Emission Reductions Purchase Agreement
- The function of the ERPA is to contractually bind the parties to deliver and accept CERs.
  - By way of the international transactions log, or ITL, the CDM Executive Board transfers CERs in accordance with the modalities of communication document to a party's account in a particular country's national registry account.
  - Until the ITL is fully functional, CERs are issued into a project participant's "pending CDM Registry account"
  - Once the ITL confirms a transfer to a national registry account, the contracting parties can move CERs (and other credits) through intracountry transfers in the national registry, or internationally through the ITL

### **ERPA Risk Mitigation**



#### Security agreements

- Capital assets (project assets, corporate assets)
- Contracts rights (including assignment of rights to receive revenues / accounts receivable)
- Contracts and permits/approvals
- Stock pledge in project borrower (depending on transaction structure)

#### CER delivery risk mitigation

Project participation; escrow agent project participation; CER delivery to security agent,
 with or without modalities communication

#### Project risk mitigation

- Use of financing tranches and structured drawdown requirements based on stage of project development
- Use of independent engineering consultant to assess project design document, construction, and operation
- Use of debt service reserve arrangements (e.g., funded by equity, operating cash flow, or uncommitted CERs) to protect against revenue interruptions

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