

CDM Market Introduction and Update

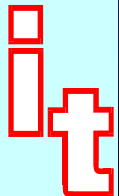
CDM 最新市场情况介绍

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Clean Development Mechanism (CDM)

清洁发展机制

- Developed countries with emissions caps pay to implement projects to achieve emission reductions in developing countries.
有减排指标的发达国家投资于发展中国家的项目，从而在发展中国家实现减排。

- Credits issued based on emission reductions of project.

信用额度根据项目减排量签发

- **核证减排额 Certified Emission Reductions (CERs):**

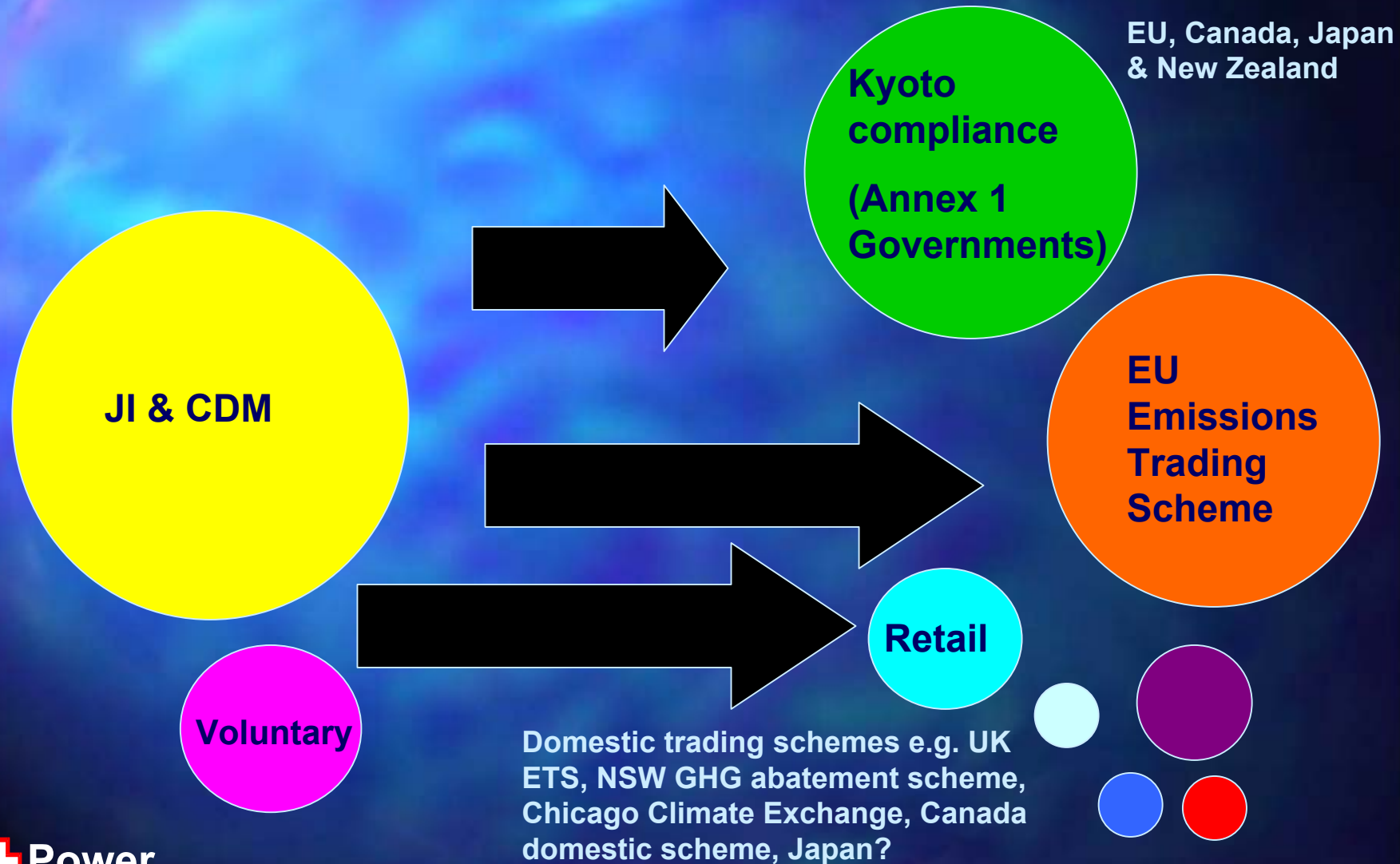
1 CER = 1 tonne CO₂ equivalent

作为清洁发展机制项目必备的条件

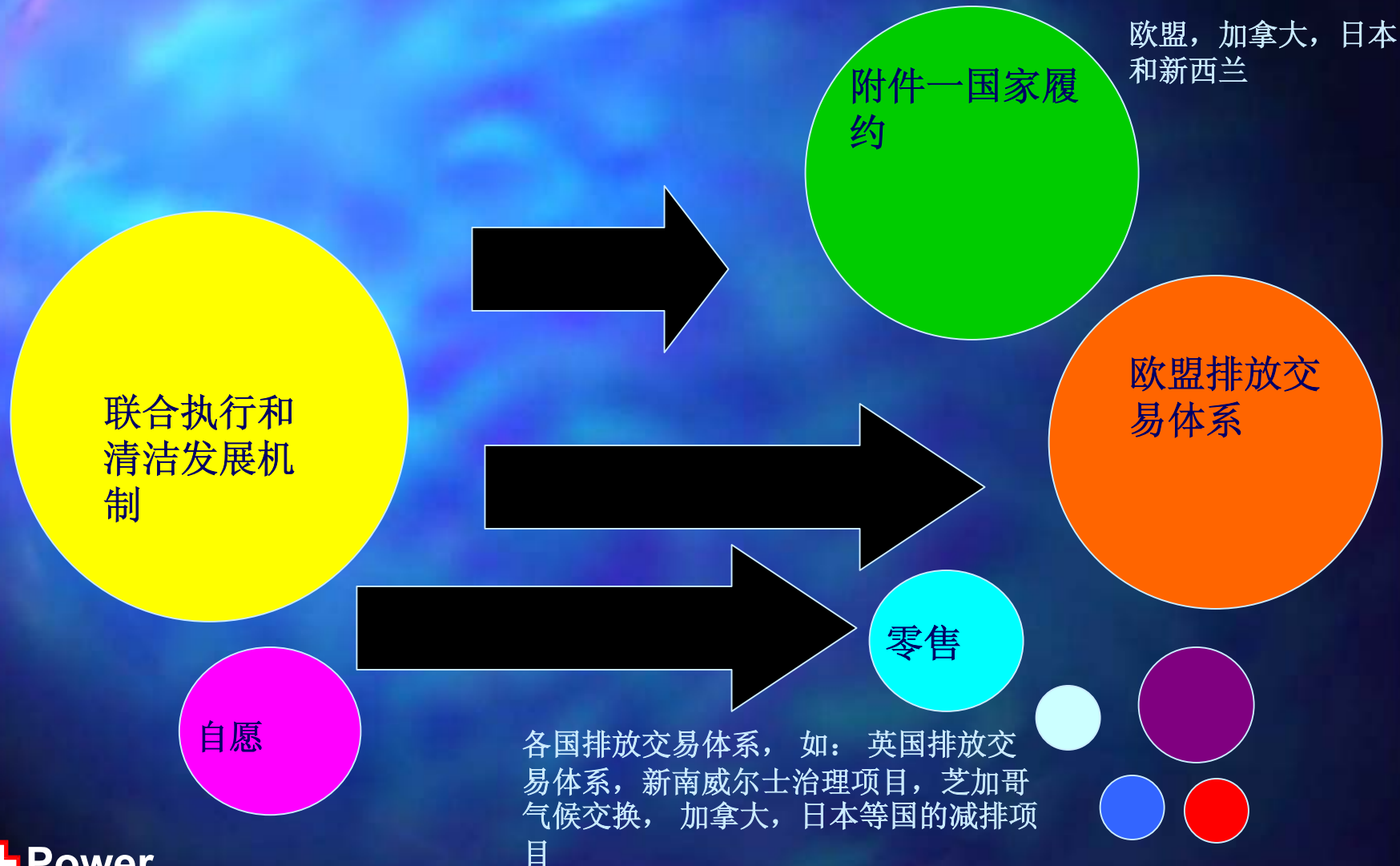
Prerequisites for a project to be considered under the CDM

- 对东道国的可持续发展做出贡献
Contributes to the sustainable development of the host country
- 产生新增的减排量
Results in emission reductions that would not have happened otherwise
- 产生真实的、可测量的，以及长期的对气候变化的影响
Generates real, measurable and long-term climate change mitigation benefits
- 其他参与方的批准
Approved by parties involved

碳市场的构成 Structure of the Carbon Market



碳市场的构成



State and Trends in the Carbon Market 2006

2006年碳市场的状况以及走势

- Overall value of global aggregated, carbon markets in 2005 was over US\$ 10 Billion

2005年全球碳市场总价值超过100亿美元

- EU dominated carbon market in terms of value:
 - EUAs worth US\$8.2 billion in 2005

欧盟主要碳市场价值

- CDM credits represented 49.2% overall volumes transacted globally

CDM信用额度占全球交易量的49.2%

- Lowest cost options (i.e. HFCs) being tapped first

最先被涉足的是成本最低方案（如：HFCs）

State and Trends in the Carbon Market 2006

2006年碳市场现状和趋势

- Biggest sellers of CERs: China and Brazil
最大的CERs卖家： 中国和巴西
- Biggest buyers: EU and Japanese private companies
最大的CERs买家： 欧盟和日本的私营企业
- US\$ 4.6 billion committed to purchase CERs and ERUs
共有4.6亿美元的资金被注入，用以购买核准减排量CERs和减排单位ERUs

Current Status of CDM

CDM 最新动态

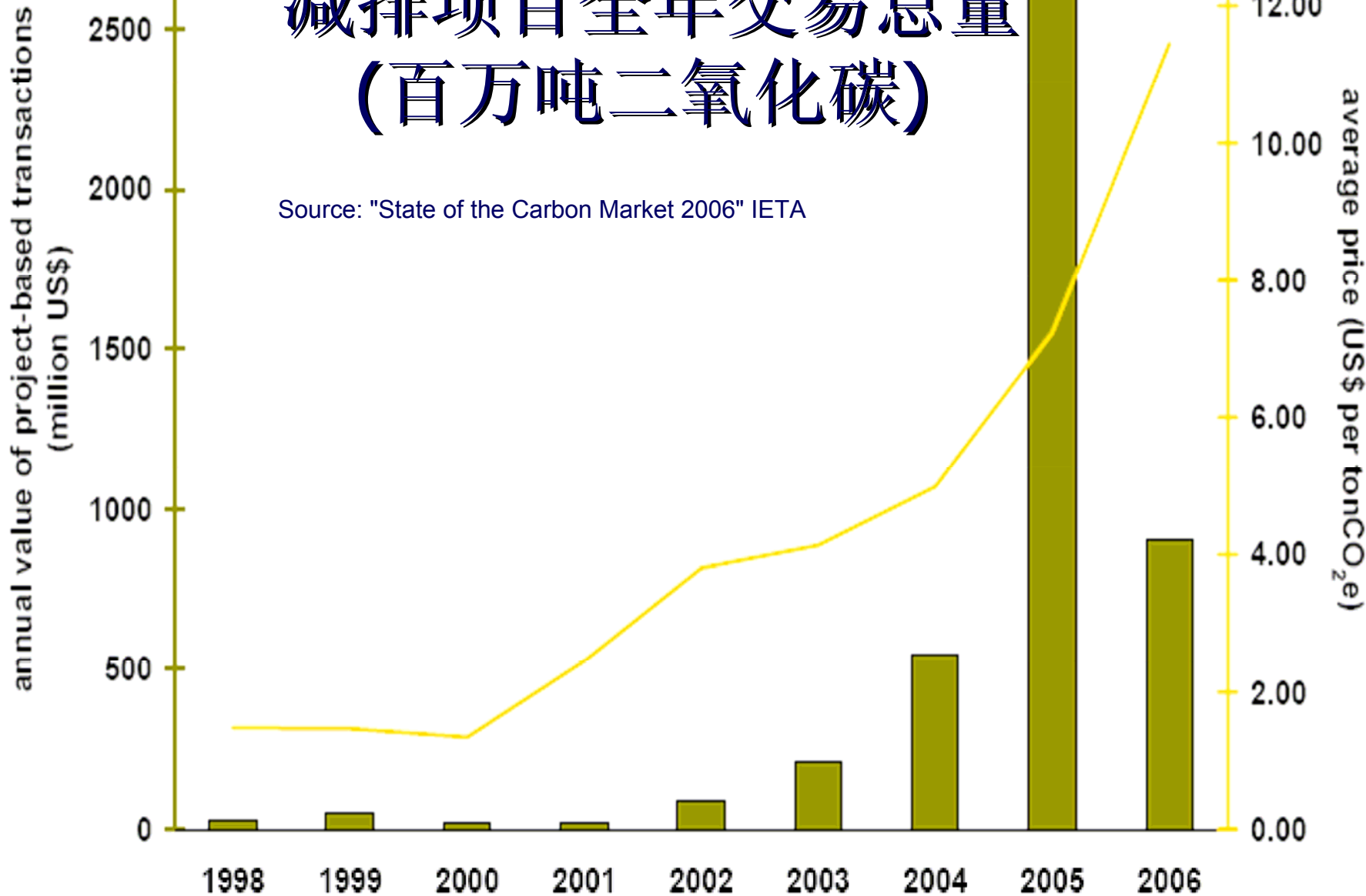
- UNFCCC news 9 June 2006: Total projects submitted so far are estimated to generate >1 billion tCO₂ emission reductions by end 2012 (1 billion tCO₂ corresponds to present annual emissions of Spain and UK combined)

联合国气候变化框架公约2006年6月9日
消息：到目前为止所提交的项目到2012
年可产生的减排量为10亿吨二氧化碳当
量。
(相当于西班牙和英国一年的排放量总额)

Annual volumes (million tCO₂) project based emission reductions transactions

减排项目全年交易总量 (百万吨二氧化碳)

Source: "State of the Carbon Market 2006" IETA

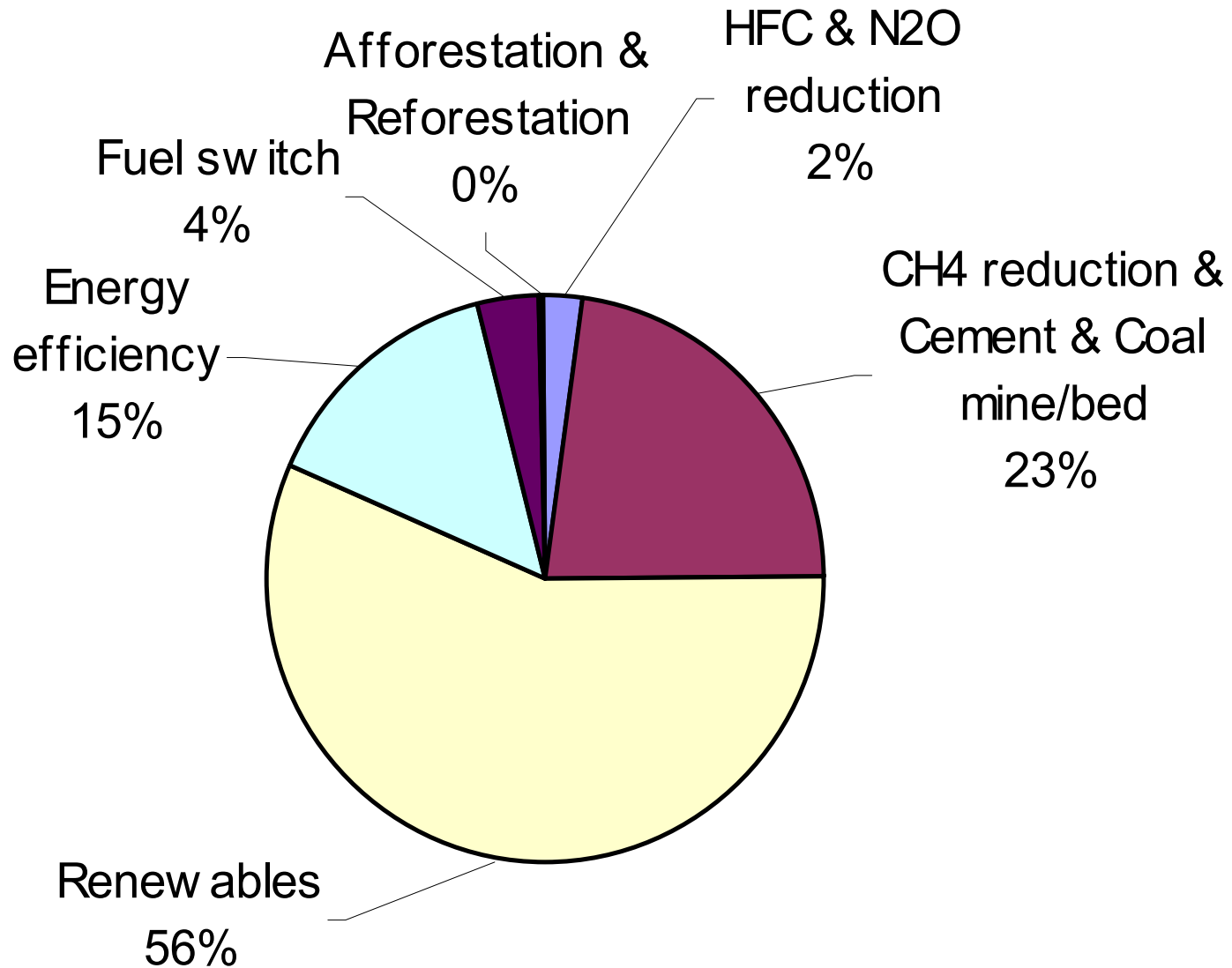


Current Status of CDM

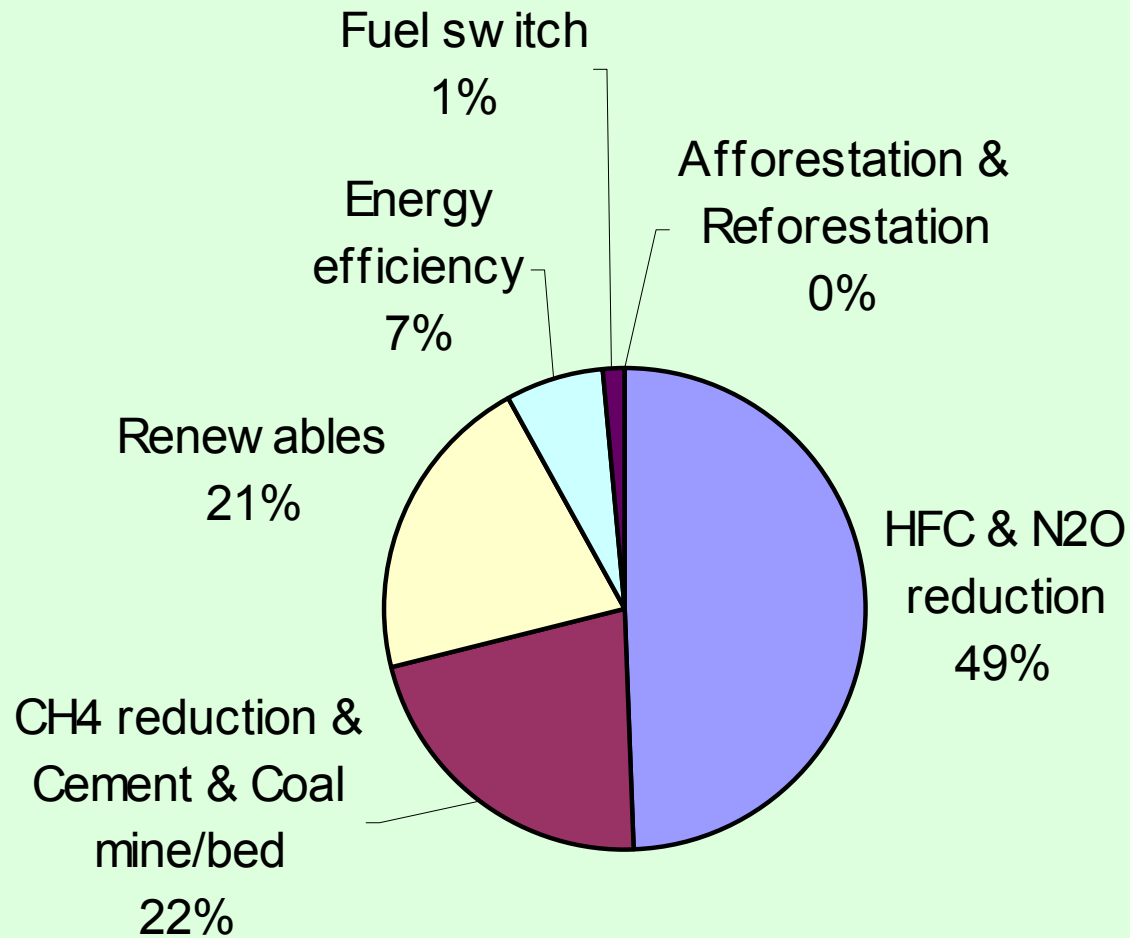
CDM 最新动态

	Projects 项目	Certified Emissions Reductions (CERs) 核准减排量
Total in CDM pipeline 在线项目	860	152.7 Million CERs/year
Registered 已注册的	222	70.13 Million CERs/year
Credits issued 已签发减排量的	25	9370 CERs

Number (%) of CDM projects in each sector



CERs until 2012 from CDM projects in each sector



Demand estimates 需求量预测

- US \$4.6 billion dedicated to carbon funds so far to purchase CERs & ERUs (ignoring private funds)

46亿美元的碳基金, 用于购买CERs & ERUs (不包括私人资金)

- World Bank's Carbon Finance Unit accounts for 1/4 global funds

世界银行的碳融资占全球资金1/4

- Overall between 600 and 1200 MtCO₂e
总额为600-1200 MtCO₂e

The EU Emissions Trading Scheme (EU ETS)

洲排放交易体系

- 欧要求每个企业交还相应于其已核实的年度排放量的一部分排放许可额度
under the EU ETS each installation is required to surrender a number of allowances corresponding to their verified emission volume for each calendar year
- Phase 1: 2005-07 第一阶段: 2005-07
- Phase 2: 2008 -12 第二阶段: 2008-12

欧盟排放交易体系和关联指南

EU ETS and Linking directive

- 自2005年CER可用于满足达标需求
Since 2005 CERs can be used for compliance
- 不超过分配给每个企业的排放许可额度的一定百分比 up to a percentage of the allocation to each installation - specified by its Member State
- UNFCCC ITL要求将CER转换进入欧盟的注册体系—有待实施 UNFCCC ITL required for the transfer of CERs into an EU registry –still to be implemented

EU Allowances 欧盟排放许可

- 1 EUA = 1 tonne CO₂ equivalent = 1 CER
1个排放许可额度=1吨二氧化碳当量=1核准减排量
- 1 EUA trading for 16€
1个排放指标的交易价格为16欧元
- Penalty value for failing to meet EUA = 100€/EUA for 2008-2012 period!!
未达到排放指标的企业罚款=100欧元/个排放指标 (2008—2012年)
- 1 CER trading for 7€
1个核准减排量的交易价格为7欧元
- Higher risks associated with CER investors...
CER的投资商承担更大的风险

EUA 2005 prices (Dec 04-Feb 06)



EUA market correction

欧盟排放许可市场的纠正

- End April 2006 news broke that several countries were less short of carbon than had been expected. As a result EUA markets wiped out half their value.

2 0 0 6 年 4 月 底 ， 有 消 息 表 明 欧 洲 几 国 碳 需 求 量 比 预 期 的 要 少 ， 结 果 导 致 欧 洲 排 放 交 易 市 场 价 格 跌 幅 过 半 。

Price estimates

价格预测

- Will obviously depend on demand 明显的以需求为主导：
 - supply of credits: country capacity, project finance, Executive Board & CDM process etc.
信用额度的供应：国家能力，项目融资，执行理事会和 C D M 程序等因素
 - domestic action/emissions
国内行动 / 排放
- Many buyers motivated by other concerns than price.
Depends on who assumes what risk & status of project development.

买方除价格外,还有其他考虑. 主要是根据谁是参与方, 来判定项目开发具有什么样的风险和状况

Post 2012

2012年后

- Currently no fixed commitments for Kyoto emissions reductions post 2012

目前尚无后京都时代减排承诺

- Therefore the demand for CERs beyond 2012 is uncertain

因此2012年后对CERs需求情况仍然不明确

- Limited but growing post 2012 market:

有限的但是正在增长的2012年后市场

- Volume of post 2012 CERs contracted in 2005 higher than expected: 23 million tCO₂ (4 million excluding large HFC projects in China)

2005年签定的2012年后的CERs总量高于预测水平：2300万吨二氧化碳当量（中国市场为400万吨，这不包括大型HFC项目）

Outlook 展望

- Global Carbon Market established and evolving
全球碳市场已经建立,并不断完善
- Risk profile important for prices
价格风险很重要
- Still remaining issues: 其他悬而未决的问题:
 - linking directive caps 关联指南限额
 - Executive Board process 执行理事会程序
 - post-2012 uncertainties 后京都不确定性
- Despite events within ETS "appears to be a solid residual demand for CERs and ERUs... from buyers with long term view"
尽管欧洲排放交易市场风云变幻,从长远的角度考虑,买家对CERs 和 ERUs需求将会是稳定的。

Thank you

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