



new energy finance
Business development in developing countries

IEA Bioenergy ExCo60
Munich, 29 October 2007

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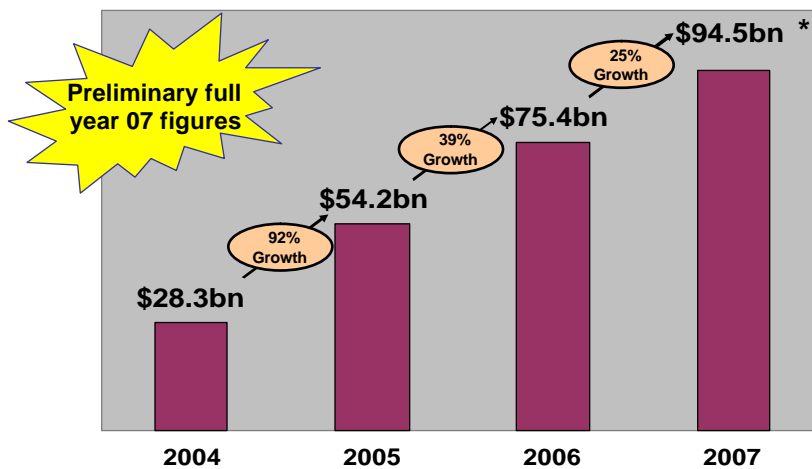
Overview

- ✍ **\$75.4bn invested globally in renewable energy in 2006**
- ✍ **Wind sector attracted 38% of the total investments, followed by biofuels**
- ✍ **Capital has been shifting to developing countries such as China and India**
- ✍ **Project's IRR can be increased considerably for CDM projects**
 - 43% of all CDM renewable energy projects are biomass projects (20% of the capacity)?
 - China has become the world's largest producer of CDM credits

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Global Investment in Clean Energy 2004 – 2007 (new money)?



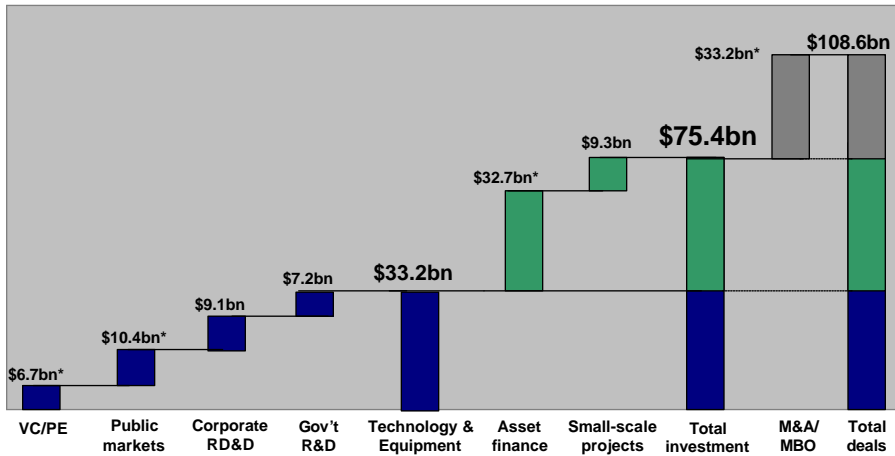
Grossed-up estimate based on disclosed deals. New investment only. * 2007 estimate based on YTD Sept.

Source: New Energy Finance

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Global Investment, M&A and Refinancing in Clean Energy by Type of Transaction, 2006 (revised Sept 2007)?

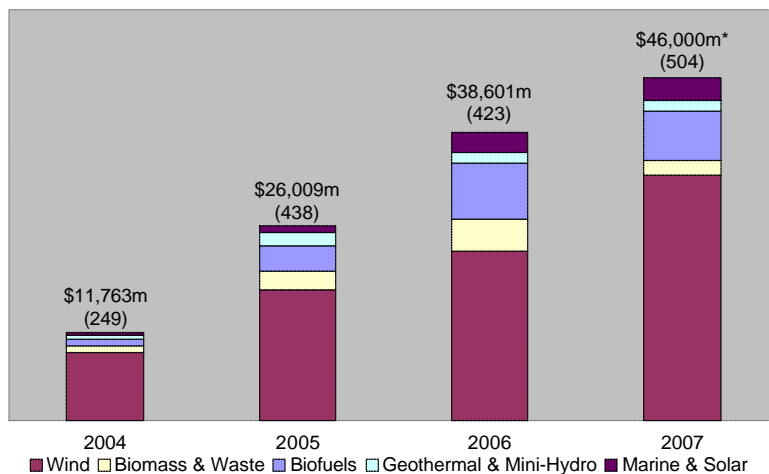


Figures marked * are based on NEF Desktop databases; all other figures based on industry estimates based on various sources.

Source: New Energy Finance



Global Asset Financing by sector 2004 – 2007

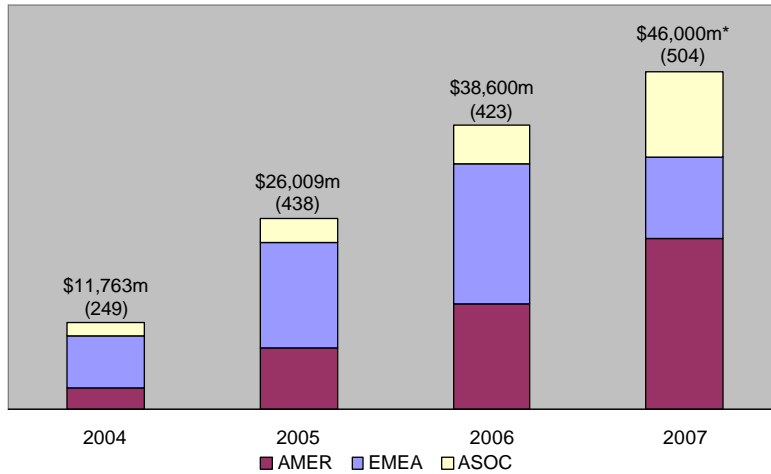


Grossed-up estimate based on disclosed deals. Numbers in brackets refer to total deals. Includes new build & refinancings, excludes project acquisitions. *2007 = annualised YTD

Source: New Energy Finance



Global Asset Financing by region 2004 – 2007

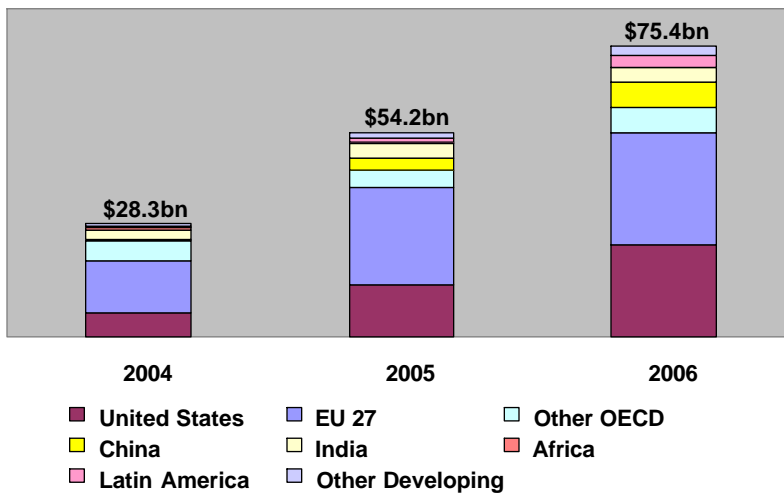


Grossed-up estimate based on disclosed deals. Numbers in brackets refer to total deals. Includes new build & refinancings, excludes project acquisitions. *2007 = annualised YTD

Source: New Energy Finance



Global Investments in Renewable Energy by region 2004 – 2006

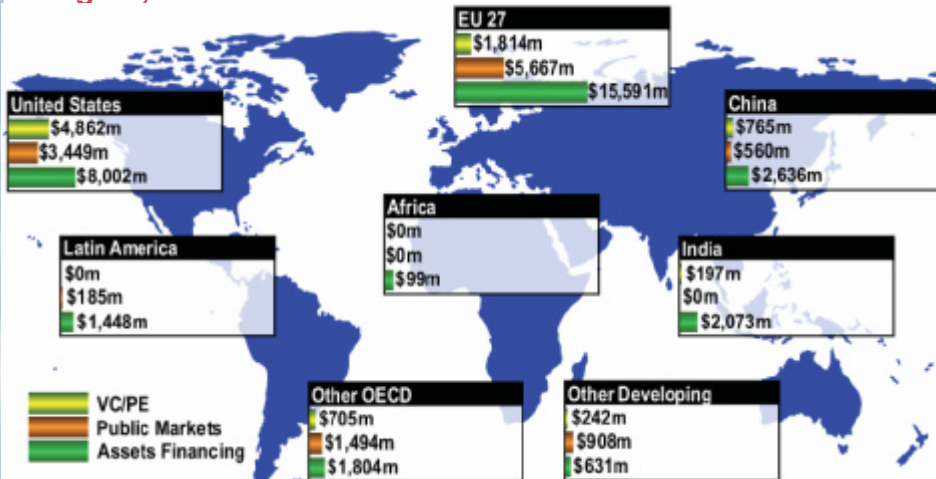


Grossed-up values based on disclosed deals. The figures represent new investment only, and do not include PE buyouts, acquisitions of projects nor investor exits.

Source: SEFI, New Energy Finance



Global Investment in Renewable Energy, by Type and Region, 2006

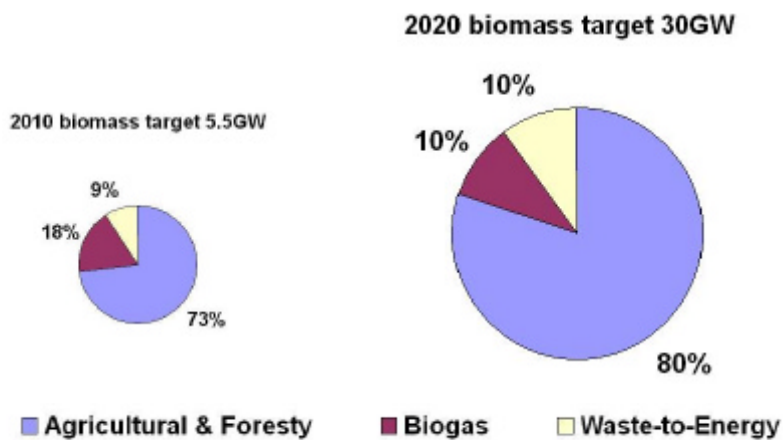


Grossed-up values based on disclosed deals. VC/PE includes PE buyouts and OTC market offerings. Public markets represent location of exchange on which a company raises money. Asset Financing figures represent total investment (new build and refinancing, acquisitions are not included).

Source: SEFI, New Energy Finance



China's Biomass Power Breakdown targets



Source: New Energy Finance



Average IRR comparisons with and without CERs by sector

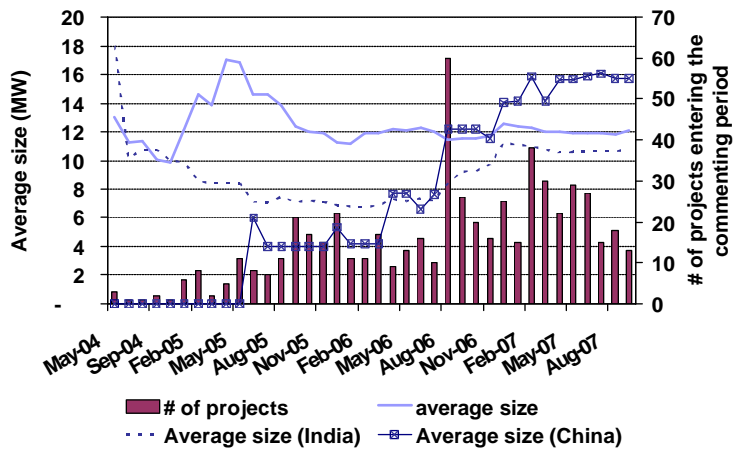
Technology	Average IRR	IRR with CERs	IRR increase	Sample size
Biogas	7%	21%	14%	40
Biomass energy	10%	18%	8%	74
Geothermal	4%	6%	2%	1
Hydro	12%	14%	2%	27
Landfill power	4%	23%	19%	21
Wind	9%	11%	2%	58

Source: UNFCCC, New Carbon Finance

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Evolution of CDM Biomass projects November 2004 – September 2007

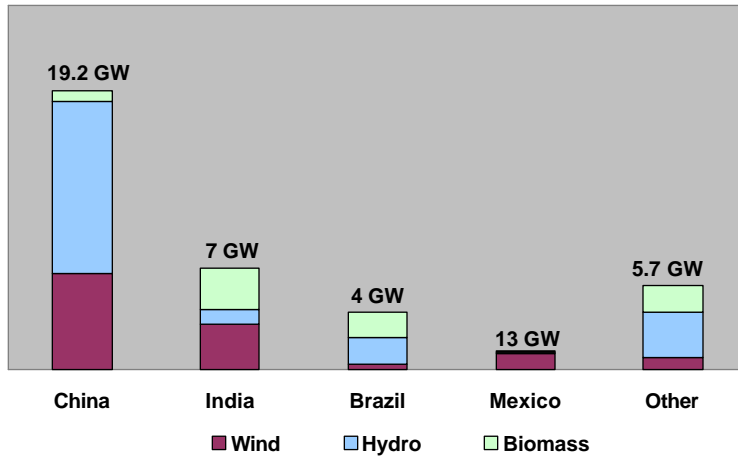


Source: UNFCCC, New Carbon Finance

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CDM power projects by sector and country in Sep 2007

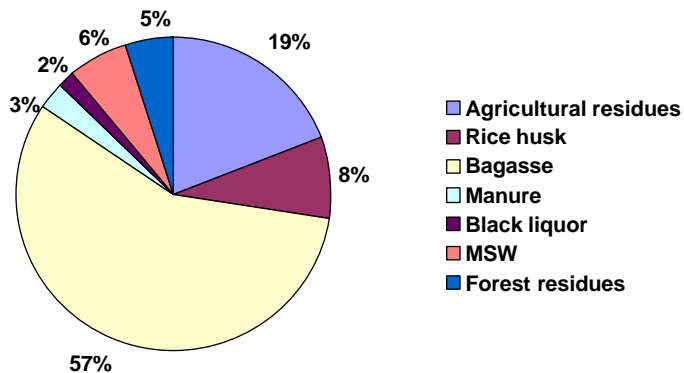


Note: Biomass includes biomass incineration, biogas and landfill gas; hydro includes projects up to 500MW

Source: UNEP



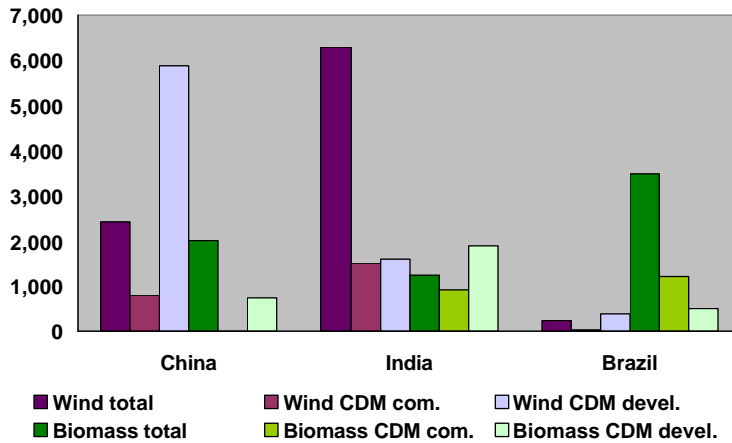
Resources for Biomass CDM projects



Source: UNEP



Wind and Biomass projects in different stages 2006 in MW



Note: total commissioned capacity by the end of 2006; CDM com.: CDM crediting period starting before 1.1.2007; CDM devel.: CDM crediting period starting after 31.12.2006

Source: New Energy Finance, UNEP



Conclusions

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Any questions?

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