

Financing of CDM/JI projects

“Self financing projects vs. additional cash-flow financing”

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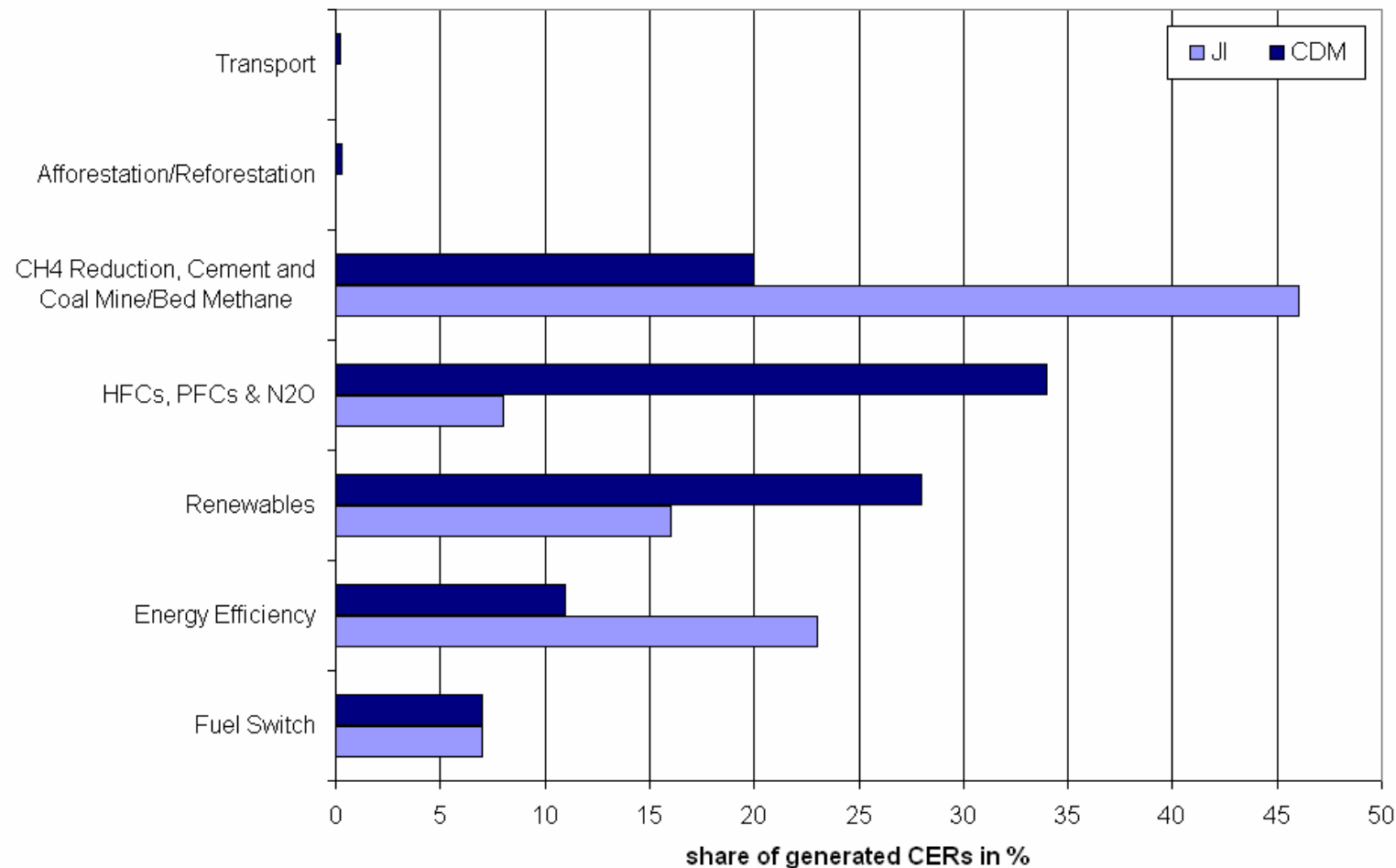
Capturing the Kyoto Opportunities

- Carbon Trade & Finance (CTF) has been established as a 50:50 Joint Venture between Gazprombank and Dresdner Bank in Luxembourg.
- CTF provides clients interested in exploiting JI/CDM opportunities as a strategic partner to
 - develop a carbon strategy, define processes and develop tools
 - provide technical and financial expertise and due diligence to identify and screen projects based on the criteria defined in the carbon strategy
 - provide guidance through the JI/CDM project development cycle (see next slide): PDD, Host Country Approval, Determination, Registration
 - purchase carbon credits (ERU/CER)
- Carbon Trade & Finance will provide a efficient and transparent procedure where the client gains the full upside potential without any additional administrative work while minimizing potential legal and other risk.
- Carbon Trade & Finance will, together with its technical partner Factor¹⁾, provide project development services (PIN, PDD writing) at no cost to the client
- Carbon Trade & Finance can offer flexible payment structures for ERUs including fixed prices or floating prices (linked to carbon indices) or a combination of fixed/floating prices

1) Factor is a leading CDM/JI project developer and advisor on climate risk mitigation strategies, based in Zurich.

CDM and JI: A Catalyst for Change

- CDM and JI provides huge opportunities to reduce GHG emissions and, importantly, a financing mechanism that helps to improve the returns of the necessary investments.



Renewable Energy (RE) and Joint Implementation

- The following important facts have to be considered if carbon components are included into RE investments:
 - Due to feed in tariffs and other politically motivated substitutes, RE projects are often economically viable without including a carbon component.
 - The investment horizons of RE projects lie between 12 and 20 years. Especially JI projects are disadvantaged.
 - Credits of “large” hydro power plants trade at a discount.
 - Based on the relatively high costs of investments for RE projects, the carbon component (JI) is often only responsible for a small part of the IRR.
 - This can only be realized with deep knowledge of both the carbon and renewable energy market

Purchase period	5 years (2008–12)	10 years	21 years	Impact per unit in USD
CER price in USD				
10	1.0	1.7	2.3	6.33/MWh
15	1.6	2.7	3.3	9.49/MWh
20	2.2	3.6	4.5	12.65/MWh

Global Warming Potential

Symbol	Name	CO2 equivalent	Main Source
CO ₂	Carbon Dioxide	1	Fossil fuel combustion, forest clearing, cements production
CH ₄	Methane	21	Landfills, production and distribution of natural gas and petroleum, fermentation from the digestive system of livestock, rice cultivation, fossil fuel combustion
N ₂ O	Nitrous Oxide	310	Fossil fuel combustion, fertilizers, nylon production, manure
HFCs	Hydrofluorcarbons	140 ~ 11,700	Refrigerating gases, aluminum smelting, semiconductor industry
PFCs	Perfluorcarbons	6,500 ~ 9,200	Aluminum production, semiconductor industry
SF ₆	Sulphurhexafluoride	23,900	Electrical transmission and distribution systems, circuit breakers, magnesium production

Self Financing Projects: Example N₂O

- HFC- or N₂O-carbon projects are “self financing”, different to RE projects where carbon credits provide only additional cash flows
- Nitrous oxide is a potent greenhouse gas that was included in the Kyoto Protocol both because of its global warming potential (310) and because of its increasing concentration.
- Major industrial N₂O emissions from adipic acid and nitric acid production can be prevented at relatively low cost.
- N₂O projects can generate significant amounts of carbon credits
- Relatively “quick” projects
- Example

Secondary N ₂ O reduct.	Catalyst + reactor revamp + Monitoring in 1.000 EUR	Credits over 5 years in 1.000 tonnes	EUR/credit
Example I	2,925	1,434	2.04
Example II	7,985	3,608	2.21

Our shareholders

- Gazprombank, one of Russia's leading banks, is the authorised bank of OAO Gazprom – one of the world's largest energy groups. With a branch network covering the whole territory of the Russian Federation, Gazprombank has over 36,000 clients in Russia from all the key industries. The bank has a leading position in the Russian domestic capital markets, including a large specialist project finance team and local investment banking expertise. Nitrous oxide is a potent greenhouse gas that was included in the Kyoto Protocol both because of its global warming potential (310) and because of its increasing concentration.
- Dresdner Bank's involvement in the joint venture will be led through its investment bank, Dresdner Kleinwort. Dresdner Kleinwort is the investment bank of Dresdner Bank AG and a member of Allianz. Dresdner Kleinwort is a prominent player in the emissions and renewables markets and was voted 'Emissions Trading House of the Year' in 2006 by 'The Banker'. Allianz Group is one of the world's leading insurance companies and is at the forefront of investments into sustainable energy. Allianz was rated the most sustainable financial company in 2006 by Dow Jones Sustainability Index rating.

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