Carbon Finance before and after Kyoto Legal Aspects

Presentation at Project SKPI Workshop

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Presentation Overview

• Introduction to project team member Hogan & Hartson
• Direct Carbon Finance: JI and CDM
  • Contractual Structures
  • Demand today and under post-Kyoto
• Indirect Carbon Finance: Green Investment Scheme funds
  • Green Investment Schemes
  • Demand for AAUs
Introduction – Who is Hogan & Hartson?

- Hogan & Hartson is a **global law firm** with offices all over the world and over 1,100 lawyers.

- Hogan & Hartson is **part of the implementation team** for the project “Support to Kyoto Protocol Implementation (SKPI),” funded by the European Union, together with ICF and TÜV Rheinland.

- Hogan & Hartson has a preeminent **Climate Change Practice** with global reach. Experience in field of Kyoto Protocol implementation/CDM includes:
  - Role as carbon manager for **MCCF**, a multilateral carbon credit fund (approx. € 195 Mio. commitment) for EBRD/EIB, in a consortium with ICF.
  - Advise to the **Russian Federation** in the implementation of Kyoto Protocol, especially on registry and inventory issues (EU TACIS project), in a consortium with ICF.
  - Advise with regard to numerous CDM and JI projects and AAU trades, involving credits (CERs, ERUs, and AAUs) with current fair market value of over $ 500 million.
Carbon Finance
Background: Kyoto Protocol Project Mechanisms

• Under the **Kyoto Protocol** (KP) Annex 1 Parties (industrialized countries) are required to reduce their GHG emissions by an average of 5% below their 1990 levels by the end of the Kyoto trading period 2008 to 2012

• Kyoto Protocol provides **three flexible mechanisms**:
  
  – **Joint Implementation** (JI): Annex 1 countries or legal entities from such countries implement emission reduction projects in other Annex 1 countries to generate Emission Reduction Units (ERUs)

  – **Clean Development Mechanism** (CDM): Annex 1 countries or legal entities from such countries get involved in emission reduction projects in non-Annex 1 countries to generate Certified Emission Reductions (CERs)

  – **Emissions trading** allows sale and purchase of Assigned Amount Units (AAUs), Removal Units (RMUs), CERs and ERUs between Annex 1 countries

• Future of mechanisms depends on post-2012 negotiations, but **CDM does not automatically stop after 2012**, even if negotiations fail!
# Carbon Finance
## Direct and Indirect Carbon Financing

<table>
<thead>
<tr>
<th>Direct Carbon Finance</th>
<th>Indirect Carbon Finance</th>
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</thead>
<tbody>
<tr>
<td>Available for projects that qualify as JI or CDM</td>
<td>Available for Projects that qualify as eligible under <strong>Green Investment Schemes</strong> which accompany a (national) <strong>AAU transactions</strong></td>
</tr>
<tr>
<td><strong>• Funds paid to project company by buyer</strong> of ERUs/CERs</td>
<td><strong>• Funds paid to project company by government or greening agent</strong> (who have received such funds from buyer)</td>
</tr>
<tr>
<td><strong>• Involvement of UNFCCC/KP regulatory bodies (CDM EB) in approval process and issuance of credits</strong></td>
<td><strong>• No involvement of UNFCCC/KP regulatory bodies, but potentially from buyer side and/or greening agent</strong></td>
</tr>
</tbody>
</table>
Direct Carbon Finance for Projects: CDM and JI
Carbon Finance for Projects
JI and CDM Contractual Relationships

• Important **contractual relationships** regarding JI/CDM projects include

  – **Engineering Contracts**
  – **Service Contracts** with certifiers etc.
  – “Normal” **Financing Contracts** (loans - with banks etc.)
  – **Sale and Purchase Contracts** for generated credits (ERUs or CERs) provides basis for **carbon financing**

• The **carbon credit sale and purchase contract (ERPA)** is usually the most difficult contractual relationship for project companies, because

  – It is the **most “exotic” contract** for most project companies, especially compared to loan agreements, as it follows **specific international standards**
  – The contract is often concluded under **foreign law** (e.g. English law), whereas other contracts often follow national laws
Carbon Finance for Projects
JI and CDM Contractual Relationships

JI/CDM Project
Project Company
Carbon Finance for Projects
JI and CDM Contractual Relationships

- Engineering and Construction Firms
- Project Construction
- Engineering Agreements
- JI/CDM Project
  - Project Company
Carbon Finance for Projects
JI and CDM Contractual Relationships

- Engineering and Construction Firms
  - Project Construction
  - Engineering Agreements

JI/CDM Project Company

Bank

- Project Financing
  - Loan Agreements
Carbon Finance for Projects
JI and CDM Contractual Relationships

- Engineering and Construction Firms
- Project Construction Agreements
- JI/CDM Project Company
- Project Financing
- Loan Agreements
- Bank
- Validate/Certify Project
- Service Agreements
- Validators, Certifiers
- Engineering Agreements

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Carbon Finance for Projects
JI and CDM Contractual Relationships

- Engineering and Construction Firms
  - Project Construction Agreements
  - Engineering Agreements

- JI/CDM Project Company
  - Project Construction
  - Loan Agreements

- Validators, Certifiers
  - Validate/Certify Project
  - Service Agreements

- CER/ERU Buyer
  - Sale and Purchase of CERs/ERUs
  - ERPA

- Bank
  - Project Financing
  - Loan Agreements
Carbon Finance for Projects
JI and CDM Contractual Relationships

Sale and Purchase of CERs/ERUs

CER/ERU Buyer

ERPA

JI/CDM Project Company

Project Financing
Loan Agreements

Bank
Carbon Finance for Projects
Important ERPA Provisions

• ERPAs, inter alia, stipulate:
  - Obligation to deliver credits (including interval)
  - Amount of credits to be delivered
  - (Unit) Price
  - Consequences of non-delivery and other events of default (e.g. delivery path failure)
  - Distribution of (regulatory) costs
  - Monitoring and Verification
  - Governing law and dispute resolution

• Form of ERPAs
  - Standard agreements (most commonly IETA ERPA)
  - Individually negotiated agreements
Carbon Finance for Projects
Pricing and Payments Structure under ERPAs

ERPA price provisions usually refer to **unit price** (e.g. Euro/CER). Important **price factors** in primary market ERPAs are:

- Advancement of the project in the **project cycle**
- **Delivery structure** (CERs produced or guaranteed amount)
- **Payment** schedule (advance payment?)
- Allocation of general **project risks**
- Allocation of **regulatory risks** regarding the domestic law of the Host Party and international law (“rating”)
- **Allocation of responsibilities** and rights regarding creation of CERs (“who does what”: validation, inclusion of Buyer in PDD etc.)
## Carbon Finance
### Delivery Structures under ERPAs

ERPA delivery obligation structure can be a decisive factor for ERU/CER price

<table>
<thead>
<tr>
<th>Guaranteed Amount (hard delivery)</th>
<th>“All credits issued” (soft delivery)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Seller has risk of non-delivery</td>
<td>• Seller has practically no risk</td>
</tr>
<tr>
<td>• Buyer has security that he receives certain amount</td>
<td>• Buyer might face CER shortage</td>
</tr>
<tr>
<td>• Risk distribution results in higher price</td>
<td>• Risk distribution results in lower price</td>
</tr>
</tbody>
</table>

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### Carbon Finance
Payment Structures under ERPAs

**ERPA payment schedule provisions can be a decisive factor for ERU/CER price:**

<table>
<thead>
<tr>
<th>Advance Payment</th>
<th>Payment on Delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>• usually leads to price discount</td>
<td>• Usually fixed price</td>
</tr>
<tr>
<td>• less so if pay-back obligation of seller is properly secured by third party guarantee or other surety (e.g. asset pledge)</td>
<td>• Indexing (e.g. to EUAs) can be dangerous for both sides</td>
</tr>
<tr>
<td>• advance payment can be used to realize project (initial investment)</td>
<td>• Specification of delivery account can have price effect:</td>
</tr>
<tr>
<td></td>
<td>– Payment on delivery in CDM registry – lower price</td>
</tr>
<tr>
<td></td>
<td>– Payment on delivery in Buyer’s account – higher price</td>
</tr>
<tr>
<td>• but: providing surety can be expensive!</td>
<td></td>
</tr>
</tbody>
</table>

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Carbon Finance Availability
Market Demand for CER/ERU Purchases

• Until recently, most CERs/ERUs were purchased for European Union Emission Trading Scheme (EU ETS) compliance
  – CERs/ERUs can be used for compliance under installation-based EU ETS as “alternative currency” up to a certain percentage of each installations compliance amount (“linking directive”)
  – EU ETS compliance buyers (companies) most important buyer group

• Recently, new market factors emerged or became stronger
  – Sovereign compliance buyers (purchases by KP Annex 1 states to meet their KP compliance obligations in 2008-2012)
  – New buyers for voluntary off-setting (e.g. air travellers)
  – New buyers through linking? (e.g. US emissions trading schemes that accept CERs for compliance)

• ERU/CER prices loose strong tie to EUA price
Carbon Finance Availability
Future CER/ERU Demand

• **Future market demand** from EU ETS compliance buyers will largely depend on EU ETS legal framework

• Current EU ETS **draft legislation** for trading period 2013-2020 makes usage of ERUs/CERs for compliance dependent on outcome of **international post-2012 agreement** negotiations

• **Criteria** for usage:
  
  – **Prior** to post-2012 agreement: **frozen budget** - only permissible budgets for period 2008-2012 may be used up after 2012 (“left-overs”)
  
  – **After** post-2012 agreement: CERs/ERUs may be used for **50 % of additional reduction obligations** deriving from new agreement

• EU ETS compliance buyers will **now have to determine** if they will likely have **demand under both scenarios** before contracting for post-2012 certificates

• However, demand from **other buyer groups** (sovereign and private)
Indirect Carbon Finance for Projects:

Green Investment Scheme Funds
Indirect Carbon Finance
International Emissions Trading (IET): Basic Facts

- **IET** is the only KP flexible mechanism without a required connection to a specific project – can be less bureaucratic than **JI**, therefore attractive for both seller and buyer side.

- Only Annex I / Annex B countries can sell, **likely to expand under post-Kyoto** agreement (more countries with target).

- IET activity has **just recently picked up** (in 2008 only 8 mio. AAUs in GIS transactions!)

- Although Article 17 KP seems to imply that trading takes place only between states, **private entity participation is possible after authorization** (see para. 5 of the Annex to Decision 11/CPM.1).

- If country **allows private entities to hold AAUs** in its national registry account, this qualifies as **authorization**.

- AAU trades are conducted through **AAU purchase agreements (AAU-PAs)**.

- AAUs can be **delivered immediately** (different from primary ERUS) – can be **interesting alternative to JI** projects!
Indirect Carbon Finance
IET and Green Investment Schemes

• AAU can be sold without any obligation to reduce GHG emissions, as long as seller keeps enough AAUs to meet compliance goals

• KP regulations require no “greening” for IET – hence no legal requirement to do so

• However, political reasons (public opinion, credibility etc.) make greening in fact necessary, especially for the buyer side (no purchase of cheap “hot air” to meet compliance goals, but meaningful contribution to GHG reductions)

• Greening of AAUs is secured by Green Investment Schemes (GIS) which can be agreed on by the parties of the AAU transaction

• Countries can regulate GIS by national legislation, but GIS can also be designed specifically between AAU transaction parties in AAU-PA
Indirect Carbon Finance  
Green Investment Schemes: Important Features

• Most important feature: The payments for the AAUs must be used in a certain way by the (primary) seller according to a greening plan

• Greening plan specifies eligible measures for spending of funds, e.g. for
  – Projects that lead to GHG reductions (e.g. energy efficiency)
  – Other projects beneficial for environment (pollution reduction etc.)
  – Education and capacity building (“soft greening”)

• Additionality (additional benefits through GIS compared to business as usual, similar to CDM and JI)

• Greening ratio (GHG reductions achieved through GIS in relation to AAU volume – up to 1:1 like for a JI project!)

• Role of buyer and seller in greening process must be defined (e.g. in project selection, review of tenders, state aid issues etc.)

• Involvement of third parties (greening agent) to administer greening process
Indirect Carbon Finance
Eligible Project Types under GIS

Green Investment Schemes identify eligible projects for GIS funding

- Renewable energy projects
- Energy efficiency projects
- Construction of low energy buildings
- Projects that use methodology similar to JI/CDM
- Reduction of trans-boundary air and water pollution
- Reduction of pollution threatening human health, etc.
Indirect Carbon Finance
Green Investment Scheme Pros and Cons

GIS as a source of „indirect carbon financing“

+ • Seller country can draw additional funding
  • Can provide more flexibility than JI and CDM
  • Private companies can benefit from opportunities

- • Funds distribution mechanism is not easy to establish
  (involvement of government, buyer, greening agent)
  • Project eligibility criteria must be very clearly defined
  • Potentially less transparent than JI and CDM
Indirect Carbon Finance
AAU Purchase - Basic Structure

• In the most basic AAU transaction structure, no third parties are involved
• Seller transfers AAUs to designated account in buyer’s national registry
• Transfer of payments and/or AAUs can either be made immediately or be tied to certain greening targets
• Problem: No security for either side that they will receive full amount of AAUs / full payment
Indirect Carbon Finance
AAU Purchase - Involvement of Escrow Agent

- In the interest of seller and buyer, it can be advisable to involve an **escrow agent** (usually a commercial bank) to hold the payment amounts.
- Payment amounts can then be **disbursed according to greening targets**.
- This **gives seller security** that he will **receive payments** if greening takes place.
Indirect Carbon Finance
AAU Purchase - Involvement of Custodian

- In addition to the escrow agent, a **custodian** can be used to **hold the AAUs** before greening has taken place.
- This provides for security for the seller that **buyer does not receive AAUs before** according **payments** are made.
- **Custodian and escrow agent** are often **identical** (commercial bank).

![Diagram showing the relationship between BUYER, SELLER, Escrow Agent, Custodian, and AAU flow.](image-url)
Indirect Carbon Finance
AAU Purchase - Involvement of Greening Agent

- In order to support effective **spending of funds in accordance with GIS**, parties can agree on appointing a **Greening Agent**

- Greening Agent **administrates distribution of funds** in coordination with buyer and seller (depending on AAU-PA)
Indirect Carbon Finance
AAU Purchase - Cash and Credit Flows

- If Projects qualifies under (national) GIS, funds could be provided
- Relationship between Project Company and Greening Agent or government could have different forms (not necessarily contract)
Indirect Carbon Finance Availability: Market Demand for AAU Purchases

• AAU demand today
  - No EU ETS buyers, but other private compliance buyers, e.g. Japanese companies and other private investors
  - Some potential KP compliance buyers have committed themselves not to use AAUs, but still currently solid demand from this buyer group

• Post-2012 demand
  - Demand structure for AAUs will depend on outcome of post-Kyoto negotiations
  - Treatment of surplus AAUs important
  - Group of states with reduction commitments decisive factor
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