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The Kyoto Protocol: Early Cross-Border Carbon Trading and Global Project Opportunities

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SUMMARY

The Kyoto Protocol provides for the establishment of a global emissions trading system, with the relevant principles, modalities, rules and guidelines to be developed by the Conference of Parties. The exact form that such a system will ultimately take remains to be seen, but the Protocol already establishes a range of mechanisms that create the key products to be traded – "Allowable Amount" permits and Certified Emission Reduction units (CERs) (or "Carbon Credits") created through the creation of carbon sinks (that is, Kyoto Forests) and through participation in key greenhouse reduction projects under the Joint Implementation (JI) and Clean Development Mechanism (CDM) projects.

As a result, a number of "early" private trades in carbon emissions reductions from various projects have already occurred despite the absence of a formal international or domestic trading regime. Such projects and trades, while a step ahead of the market, demonstrate the opportunities that exist. After outlining the existing framework of the international trading regime this paper outlines the opportunities at the global level for undertaking carbon emission reduction projects based on the CDM and JI mechanism and the opportunity for accessing funds to undertake such projects.

INTRODUCTION

The developing international legal framework under both the United Nations Framework Convention on Climate Change (UNFCCC)

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and the Kyoto Protocol to address the issue of global climate change places quantifiable obligations upon sovereign states to decrease their levels of greenhouse gas emissions relative to their 1990 levels.[1] In order to facilitate this reduction in greenhouse gas emissions, the Kyoto Protocol adopts a range of market based or flexible mechanisms of which emissions trading is one, and the creation of emission reduction units or "carbon credits" (emissions credits) by projects is another. In doing so, it is hoped that such mechanisms will encourage greater participation in the regulatory regime by those best in a position to deliver the emission reductions that are being sought.

For many of the clients for whom we act, these market based mechanisms and the framework within which they are to operate, provide both risks and potential opportunities. For clients whose businesses involve high levels of greenhouse emissions there will no doubt be future obligations placed upon them to reduce those emissions. For other clients with emissions reducing technologies or who are undertaking projects that by their very nature reduce emissions significant opportunities exist. Not only may it be possible to access financing for the uptake of such technologies, but where clear emissions reductions can be demonstrated, the potential to create tradeable units of emission credits may prove to be enormous.

EARLY CARBON TRADING AND THE CREATION OF THE TRADEABLE PRODUCT

The trading of the *environmental products* is not new. Domestic emissions trading has taken place for some time, as clearly evidenced by the SOx market in the United States, salinity trading in New South Wales and the buying and selling of individual transferable fishery quotas in both Australia and New Zealand. However, such schemes have been traditionally confined to small domestic markets.

However, with the drafting of the Kyoto Protocol, provision has been made for an international emissions trading system in greenhouse gas emissions in which countries can trade their Allowable Amounts under Annex B of the Protocol. Article 17 of the Kyoto Protocol provides:

> "The Conference of the Parties shall define the relevant principles, modalities, rules and guidelines, in particular for verification,

[1] Under the Kyoto Protocol to the United Nations Framework Convention on Climate Change, those countries listed in Annex B (mainly developed countries and the East European Economies and Transition) are subject to quantified emission limitations or reduction commitments. For example, Australia is required to reduce its levels of greenhouse gas emissions across the 2008-2012 period to 108 percent of what those emissions were in 1990. This is estimated to be around a 28-34 percent decrease. Annex 1 countries to the UNFCCC largely reflect Annex B countries.

> reporting and the accountability for emissions trading. The parties included in Annex B may participate in emissions trading for the purposes of fulfilling their commitments under Article 3. Any such trading shall be supplemental to domestic actions for the purpose of meeting quantified emission limitation and reduction commitments under that Article."

Article 17 simply states that parties to the Protocol will work to develop the international trading rules that will be required for such a system to operate. It does not provide the details of such a system and there are a range of fundamental issues that need to be resolved. For example the way in which trading systems will be established and administered, the way in which the products to be traded under those systems are to be created and a range of other matters such as the determination of liabilities.

Nonetheless, it is likely that an emissions trading scheme will see country obligations placed onto companies and be based on the allocation of emission permits which simply cap the level of emissions allowed by the permit holder. In the event that mitigation is too costly, the permit holder can, through an emissions trading system, purchase excess permits from companies who are well below their permit limit. In addition, such schemes are expected to also accommodate emission credits from projects which can be used as an alternative to purchasing permits.

At present the parties and the working groups established underneath the Kyoto Protocol (the Subsidiary Body for Scientific and Technical Advice and the Subsidiary Body for Implementation) are involved in developing the rules upon which an international trading regime will be based. In addition, a number of multi-lateral organisations such as the United Nations Conference on Trade and Development (UNCTAD) and regional bodies such as a European Union (EU) have undertaken significant studies of the different trading regimes that may be adopted. Furthermore, a number of national governments, including the Finish, Danish, United Kingdom and Australian governments are well down the track in investigating the potential for their own domestic trading systems.

Significantly, while the international governmental community continues to develop the rules for an international emissions trading system, the most significant influence on regime design is emerging through the early emissions reducing projects and the private party to party trading of emissions credits take are taking place. Companies such as NSW State Forests, Tokyo Electric Power Company (TEPCO), BP Amoco, Shell, Ontario Power and Trans Alta have all been making headlines and all working to shape the way in which the legal systems are to be developed.

In light of these early developments, the question therefore becomes: "what is it that is actually being traded at this time and what opportunities exist for the clients for whom we act?" Many of the headlines in the newspapers refer to sales of "*carbon credits*" without necessarily explaining what these are or how they are created.

At international law, the Kyoto Protocol provides for international projects that reduce greenhouse emissions beyond what would otherwise be the case to create Certified Emission Reductions (CERs)[2] and Emission Reduction Units (ERUs),[3] more commonly referred to as carbon or emissions credits. This includes projects that:

(a) lead to greenhouse emissions reductions as a result of projects undertaken between Annex 1 countries[4] to the Protocol, known as Joint Implementation (JI) projects; and
(b) deliver greenhouse emissions reductions from projects between Annex 1 countries and developing countries known as Clean Development Mechanism (CDM) projects;

collectively referred to as "Kyoto Projects".[5]

The type of projects that qualify as JIs or CDMs are not defined. However, they are recognised as including activities such as forestry activities, capturing methane from landfills, the adoption of renewable energy, fuel switching to cleaner technologies on large power projects and the adoption of fuel cell technology in the transport sector. Provided that they result in emissions reductions beyond what would normally occur and provided they meet the other requirements of Arts 6 and 12 then they will generate emissions credits, which ultimately will be utilised in meeting legal limitations on emissions.

While conceptually the notion of emissions trading and emissions credits is appreciated, there remains no specific legal regime under which carbon credits exist. New South Wales has implemented legislation which allows parties to register sequestrated from forestry projects as a separate legal title, but there is no clear definition within Australian law of a carbon credit. The issue therefore remains as to whether or not a credit is a property right or some form of future. This in itself is a complex issue and is extremely well canvassed by Brad Wylynko in the previous paper. The ultimate legal right to volumes of carbon will ultimately need to be determined by legislation.

In the meantime, and in the absence of any legislation providing for any trading or the allocation of permits, the focus has been on the

[2] Article 12, Kyoto Protocol.
[3] Article 6, Kyoto Protocol.
[4] Annex 1 Parties are those Developed Countries and Economies in Transition listed in Annex 1 of the Protocol.
[5] Article 3.3 of the Protocol also provides for carbon sequestrated from certain forest related activities to be recognised.

early trading of emissions reductions from projects largely in the forestry and power sectors. In most cases these are primarily by companies seeking to gain what is hoped to be an early pricing advantage. Furthermore, in such early trades the legal right to ownership of a carbon credit is clearly a contractual one with issues of ownership and transferability best dealt with by way of contract.[6]

PROJECT OPPORTUNITIES

Despite the lack of formalisation of the global emissions trading system envisaged under the Kyoto Protocol, many companies have, as noted above, begun engaging in cross-border speculative trades of emissions credits thereby reinforcing the market opportunities that exist.

These early speculative trades have also established a clear distinction between reductions generated from projects envisaged by the Kyoto Protocol (that is, CDM and JI projects) and those generated from other sources, for which no formal or informal recognition has yet been given. Importantly the Kyoto based mechanisms provide the greatest security owing to:

(a) the existence of the preliminary legal frameworks for CDM and JI projects ("the Kyoto projects") under the Kyoto Protocol;
(b) the ability to bank CDM emissions reductions from 1 January 2000 (unlike all other remissions reductions sourced from other projects);
(c) institutional support from many protocol countries including the Australian Government and also from institutional players such as the World Bank under its Prototype Carbon Fund and the United States under its Activities Implemented Jointly (AIJ) programme.

Therefore, where a client is undertaking an offshore project which has the effect of reducing levels of greenhouse gas emissions, there is likely to be a real opportunity for structuring the project in such a manner that complies with the Kyoto Protocol rules and thereby generates an additional asset which had not previously been considered.[7]

Furthermore, for a company that is facing potentially significant legal obligations to reduce its greenhouse emissions, securing greenhouse reductions from offshore projects may prove invaluable. For example, a multi-national corporation with a diverse asset

[6] B Wylynko, "On the Road to Greenhouse Gas Emissions Trading", Paper presented at the 24th Annual AMPLA Conference, Fremantle, Western Australia, 26-29 July 2000.

[7] Such projects will obviously be subject to the rules of environmental and financial additionality being developed under the Protocol.

portfolio may very well find that decreasing levels of greenhouse emissions on projects it is undertaking in developing states at relatively low cost, which can then be repatriated to the jurisdiction in which they have their legal obligations, may be far cheaper than implementing technologies to reduce its emissions in the jurisdiction upon which the obligations are imposed.

Obviously, in the absence of any binding legal obligations to reduce emissions many companies may ask why there is any need at all to be undertaking such projects. However, where projects are already being undertaken, particularly by companies with a potential future legal liability, the relative ease of structuring planned projects as Kyoto projects, may prove in the long term an invaluable decision.

JI AND CDM PROJECT OPPORTUNITIES

As noted above the Kyoto Protocol provides for JI and CDM projects that reduce greenhouse emissions to generate emission reduction units.

Joint Implementation Projects: Art 6

Under Art 6 of the Kyoto Protocol JI projects refer to projects in which UNFCCC Annex 1 countries (developed countries and countries in transition) work together to undertake cross-border investments in projects aimed at reducing greenhouse gas emissions through emissions savings or through removals by sinks. These projects can earn ERUs which can then be traded between the countries in order to meet their emission reduction commitments.

For example, an Australian company that faces high cost for reducing domestic emissions may invest in low emissions technology in a new power plant it is building in Hungary at a lower cost than it could do in Australia. Credit for the emissions reductions can then be used to increase the emission allowance of the Australian company undertaking the project while Hungary receives foreign investment and more efficient technologies.

In order to qualify as a JI project the following criteria must be met:

(a) the project must be undertaken between Annex 1 countries (for example, Australia and New Zealand, UK and the Czech Republic);
(b) the project activity must be of a type that results in a reduction in emissions by sources or enhancement by removal by sinks;

(c) the project must provide a reduction or enhancement that is additional to any that would otherwise occur in the absence of the project activity (the notion of *additionality*[8]);
(d) the participation of both parties must be voluntary and approved by each country; and
(e) the project must be supplemental to domestic actions to reduce greenhouse gas emissions.

Significantly, only emission reduction units generated between 2008 and 2012 may be utilised. Any emission reductions from projects undertaken prior to 2008 may not be used to offset obligations.

Clean Development Mechanism Projects: Art 12

The Clean Development Mechanism (CDM) established under Art 12 of the Kyoto Protocol allows UNFCCC Annex 1 parties (developed countries and economies in transition) to earn CERs from investments in emission reduction products in non-Annex 1 parties (developing countries). CERs generated from CDM project activities can then be used by Annex 1 parties to offset their national emission reduction commitments under Annex B of the Kyoto Protocol and similarly by private companies seeking to meet emission reduction obligations.

To be eligible to qualify as a CDM project activity and receive certification of emission reductions, a project activity must satisfy the criteria set out under Art 12:

(a) the project activity must be undertaken by an Annex 1 party in a developing country;
(b) the participation of both countries must be voluntary and approved by each country;
(c) the project activity must be of a type that results in emission reductions and contributes to the goal of sustainable developments by producing real, measurable and long-term benefits related to the mitigation of climate change; and
(d) the emission reductions must be additional to any emission reductions that would occur in the absence of the certified project activity.

Significantly, unlike all other projects, emission reductions from the clean development mechanism can be generated from 1 January 2000 and put aside for use between 2008 and 2012.

[8] There has been ongoing debate about the use of the term *additionality*. There is universal agreement that it applies to emissions themselves but there has been ongoing debate as to whether or not financial additionality is also required (ie that the project would not have proceeded but for the funds received from the emission reduction units). The current position on the issue of financial additionality appears to be that it will not be required although projects which are being funded by Overseas Development Aid (ODA) will not be eligible for creating emission reductions.

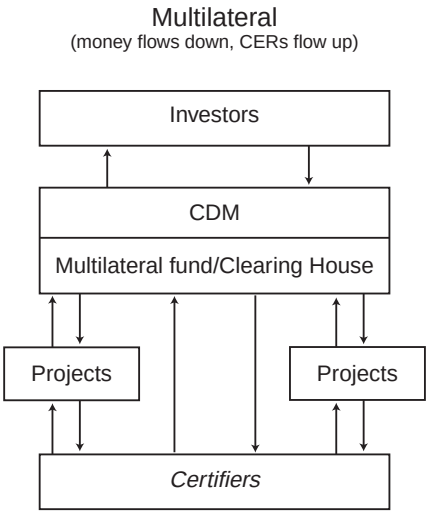
Philosophically, CDM projects are particularly important as like other technology transfer arrangements in international environmental agreements, they are designed to assist the flow of cleaner technologies into developing countries in circumstances where such flows would not otherwise occur. It will be up to the host country of the project to ensure that any project and investment for which CDM status is being pursued is one that meets its goals of sustainable development and which produces real long term climate change benefits.

It is also intended that CDM projects will be undertaken within a clear administrative framework. For example, Art 12 clearly envisages the establishment of a CDM Executive Board whose role will include formal approval of projects that are undertaken. In the absence of this Board, early projects are simply being structured along the existing CDM guidelines with the expectation that if given host country approval today, that CDM Executive Board approval will be granted with little difficulty once the body is established.

Whether or not this will be the case, the actual role to be played by the CDM Executive Board and any other administrative bodies associated with it remains to be determined. At present there is a debate surrounding the most appropriate model for CDM projects with attention having focused upon two basic frameworks:

(a) the centralised *multilateral* (or *portfolio model*) under which all projects are undertaken through a central body; and
(b) the *bilateral model* under which projects are undertaken by private parties but ultimately endorsed by the administrative body.

The multilateral model



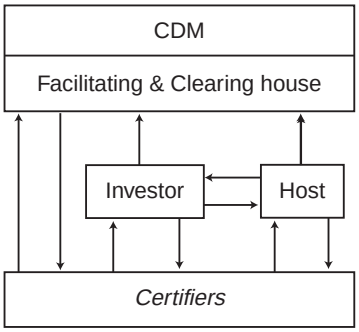
Under the multilateral model, the CDM (either through its operational entities or other international entities, such as a multilateral development bank or a UN agency) would identify and select appropriate project activities to be funded with investments received from public or private entities of Annex 1 Parties wishing to invest in CDM projects. Specific features of this model include:

- the entity responsible for the multilateral investment fund would review, evaluate and select, according to standardised criteria, project activities that have been proposed by developing countries themselves or by private sector entities who have directly negotiated with a project sponsor;
- emission reductions resulting from approved project activities would be verified and certified by independent third party auditors liaising with the CDM authorities;
- credits generated by approved project activities would be used by the CDM authorities to cover administrative costs and finance adaptation measures of vulnerable countries before remitting CERs to public or private investors;
- CERs generated from approved project activities would be apportioned between the investing entities according to their level of investment;
- secondary markets in CERs, in addition to the primary project activity market, could be created through the periodic auctioning of a percentage of the CERs from each project;
- in its start up phase, project investors would most likely be required to make an initial capital injection into the multilateral investment fund.
- The aim behind the multilateral fund model is to create an internationally equitable CDM market by shielding host countries from direct buying and selling of CERs which could result in inequitable price variations for CERs and the inequitable distribution of CEM projects.

The bilateral model

Under the bilateral model, public and private entities from Annex 1 Parties would negotiate directly on bilateral terms with the project sponsors and the host country to identify and select an appropriate project and negotiate the funding of costs and the sharing of CERs.

Bilateral
(money, CERs, and contract flows
horizontal; registration vertical)



Specific features of this model would include:

- the selection, development, financing and implementation of CDM project activities would rest with the parties and entities directly involved in each project in a decentralised manner;
- emission reductions from bilateral project activities would be certified by independent third party auditors as established according to CDM criteria and by CDM authorities;
- a "charge" would then be levied by the CDM authorities on CER transfers resulting from bilateral project activities to cover administrative and adaptation costs; and
- the CDM authorities (either the executive board and/or its operational entities) would only be involved to facilitate negotiations between investors and host countries, approve CDM-eligible project activities and monitor and track CER trades and transfers.

Early CDM project structures

Regardless of which approach is ultimately adopted it is clear that the actual structuring of projects themselves may take a variety of forms. The early project structuring that is emerging is relatively straightforward with a clear allocation of investment, project revenue and emission reduction unit revenue flows identified. Examples include:

(a) a simple CDM whereby the investor in a emission reduction project (such as a new power station with low emissions) takes a consolidated cash flow from both the sale of electricity and the sale of any CERs;

(b) an approach whereby an investor in a project takes primary returns from conventional outputs of the project (for example, the sale of cleaner electricity) and takes a separate revenue stream from any potential CERs which may be sold. The CER returns may in fact be split between the investing party, the project proponent and the host country;
(c) thirdly, it may be the case that investment flows into a project are clearly distinguished between investment capital and CER capital so that returns from conventional outputs return to the investment capital while returns from CER sales return to the CER capital investor.

PROJECT REVENUES AND FUNDING

There are obviously a range of project structuring and funding avenues which may be adopted. However, whatever the ultimate source and make-up of investment eventuates, in all cases the objective will be to maximise, not only the conventional outputs from the project itself, but also to ensure that, in the event that emission reductions can be generated, they can then be clearly identified, allocated and utilised or traded.

As noted above, one of the most important purposes of the CDM mechanism is to encourage the flow of cleaner technologies into developing countries in a way that would not otherwise be possible, through the ability to generate emission reduction units which, once sold, will generate funds which can be put back into the project to cover the costs of that cleaner technology, the potential rate of its implementation and in some cases ensuring that the project itself actually proceeds. For example, where a multinational power company purchases an old power station in a developing country, it may choose to substantially upgrade that facility with more expensive emissions efficient technologies knowing that that the cost of doing so will be offset by the potential sale of emission reduction units. Alternatively, the manufacturer of buses in a developing country may work closely with the developer of cleaner engine technologies in a developed country to build new buses that run on fuel cell technology as opposed to petrol, with the cost differential again being made up of the sale of emission reduction units.

In some cases, where projects are intending to proceed anyway, the emission reduction units will be an additional revenue stream from the investment. However, in others, it will be clear that, without the returns from the sale of the emission reduction units, the project

itself may not proceed. Furthermore, in other cases, even the revenues from the emission reduction units themselves may not be sufficient to enable the project to proceed and in those cases there is now significant international funding to back CDM and JI projects in return for the rights to any emission reduction units that are generated. The most significant of these is the World Bank's Prototype Carbon Fund.

The World Bank Prototype Carbon Fund

The Prototype Carbon Fund (PCF) (see diagram p 392) was established by the World Bank in July 1999 to pilot the development of emission reduction activities in participating host countries, being both economies in transition and developing countries, along the lines of the CDM and JI mechanisms. As a pilot activity, the PCF is restricted to US$180 million and is scheduled to terminate in 2012.

Under the PCF, funds are provided by both government and the private sector to fund projects that are designed to produce high quality greenhouse gas emission reductions which are eligible for registration under the Kyoto Protocol by being fully consistent with the emerging frameworks for JI and CDM projects. In return, the contributors or participants in the fund receive a pro rata share of the emission reductions in accordance with carbon purchase agreements reached with the countries "hosting" the project.

The PCF is endeavouring to achieve a balanced portfolio both geographically and technologically. Approximately half of the investments will be made in economies in transition largely as JI projects, while the other half will be made in developing countries based upon the CDM mechanism. The major emphasis will be placed upon renewal energy and energy efficiency projects, which have a great potential for replication and for reducing climate change at a reasonable cost.

Normally, the PCF will purchase emission reductions from projects directly, and not through intermediaries. However, the PCF will also work through established intermediaries, such as local or regional energy investment funds, energy service companies, commercial banks and others to aggregate smaller projects efficiently and build capacity for smaller economies to supply high quality, attractively priced emission reductions.

In effect therefore, where a client is considering undertaking a project that is located in one of the PCF host countries, there is the opportunity to access specific funding for the project with a

guaranteed purchase of the emission reductions that are generated.

The first major project under the PCF is a solid waste management project in Latvia designed to implement a self-sustaining modern waste management system for the city and region of Liepaja. By installing a state of the art system with maximum collection of generated methane which would not otherwise be affordable, lower greenhouse gas emissions result through two channels. First, by mitigating the methane emitted by decaying waste and, second, by substituting land filled gas for fossil fuels for electricity and heat generation.

Obviously, the PCF is a limited fund with focus on both developing countries and economies in transition which have agreed to participate. In this respect, it will not be applicable to funding many projects that do not fall within the PCF criteria and jurisdiction of the participating countries. Nonetheless, there are a number of other funds that are available both in Australia and internationally to facilitate the pursuit of emission reduction projects.

Other International Funds

There are also a number of other international funds which have been established solely to provide investment in projects that help mitigate climate change while also generating healthy cash returns for investors. While the PCF is obviously one example, the Renewable Energy and Energy Efficiency Fund (REEF), initiated by the International Finance Corporation (IFC) has begun operating after raising $65 million in private equity by its first closing. In addition to the equity fund, which is expected to reach $100 million over the next few months, REEF will also be able to draw upon a $100 million debt facility arranged by Dresdner Kleinwort Benson and the IFC and a co-financing arrangement of up to $30 million from the World Bank's Global Environmental Facility.[9]

In addition to the REEF fund, there are also a number of private funds being established including that reportedly by Credit Lyonaisse which is rumoured to be around US$400 million.

It is also interesting to note that a number of governments have also established dedicated funds to be spent on acquiring emission reductions thereby providing further incentives for emission reduction projects to be undertaken. The Dutch Government, for example, is currently inviting tenders for permits to emit 3 million

[9] Graham Cooper, "Climate Change Funds Exceed Targets" in *Environmental Finance*, June 2000, at 7.

tonnes of carbon dioxide (CO_2) or equivalent. The Ministry of Economic Affairs has $25 million to spend on emission reductions generated by JI projects in central and east Europe. It is expected that prices for the credits will be between US$4.21 to US$8.42 per tonne. Given that the fund is prepared to pay up to 80 percent of the emission reduction units value in advance, the programme is expected to provide up to 40 percent of the funding required for chosen projects to be undertaken. Significantly, it is expected that the Dutch fund will later be extended to include CDM projects.[10]

Australian Based Funds

The Australian Government has set aside significant funding for domestic projects that will ultimately result in the reduction of emissions. While not necessarily qualifying for the generation of carbon credits they will assist in getting many projects off the ground. For example the Greenhouse Gas Abatement Programme (GGAP) commits $400 million to assist Australia in meeting its commitments under the Kyoto Protocol and forms part of the federal Government's broader environmental initiatives. The Australian Greenhouse Office, through a consultation paper on draft guidelines, is currently considering options for implementing the GGAP and developing an appropriate design. Before funding can begin, however, a number of critical matters still need to be clarified, including the programme structure, possible programme priorities, processes for allocating the funds and delivery mechanisms.

The GGAP was designed to deliver maximum abatement returns on investment and to target cost effective, large scale abatement opportunities that are not addressed by other programmes. Funding will not, however, be available for pre-existing activities or activities that could reasonably be expected to be undertaken in the normal course of business. However, in doing so the GGAP focuses on four key areas:

- technology deployment, being technologies that deliver significant, additional and sustained greenhouse gas abatement by accelerating development and deployment of technologies capable of delivering abatement in the first Kyoto period;
- regional greenhouse partnerships, being projects that encourage significant and sustained reductions in greenhouse emissions across regional Australia in various sectors;
- built, environmental and infrastructure projects that encourage uptake and use of greenhouse efficient technologies, infrastructure and practices within the built environment; and

[10] www.senter.nl\erupt.

- greenhouse abatement facilitation projects that enhance capacity and provide tools to encourage and facilitate abatement.[11]

In addition other funds such as the Renewable Energy Equity Fund, the Renewable Energy Commercialisation Programme and the Alternative Fuels Conversion Programme all provide funding for achieving emission reductions in various sectors.

Australian funds also exist towards supporting CDM and JI type projects, particularly those that are being undertaken in the South Pacific. The International Greenhouse Partnerships (IGP) office of the Department of Industry Science and Resources is responsible for the management of JI and CDM programmes and assists in funding such programmes.

CONCLUSION

The developing project rules associated with the CDM and JI provisions of the Kyoto Protocol and the emergence of major international and domestic funds to facilitate emissions reductions projects provide a real opportunity to develop both planned and potential international projects into ones capable of generating significant volumes of emissions reduction units. While it is unclear to what extent domestic projects will generate credits, funding to undertake such projects is now available.

In addition, the same frameworks and in particular the funding that may be made available provide the opportunity to develop borderline projects and emerging new technologies that have the ability to reduce emissions in circumstances where the lack of project funding may not otherwise allow such projects to proceed. As project lawyers who work on a range of infrastructure and power projects in the region, awareness of such opportunities is critical.

Over the longer term the CDM and JI mechanisms, along with the project funding designed to support them, will allow a far greater commissioning and uptake of projects and technologies that reduce emissions than would otherwise have been the case. Furthermore, with guaranteed buyers, such as the Dutch Government and the PCF, many of the uncertainties regarding the ability to sell emissions reduction units are removed.

As tools within the framework to address climate change there is little doubt that both the CDM and JI mechanisms will be critical.

[11] Full details of the GGAP can be found at www.greenhouse.gov.au/ag/new.html.

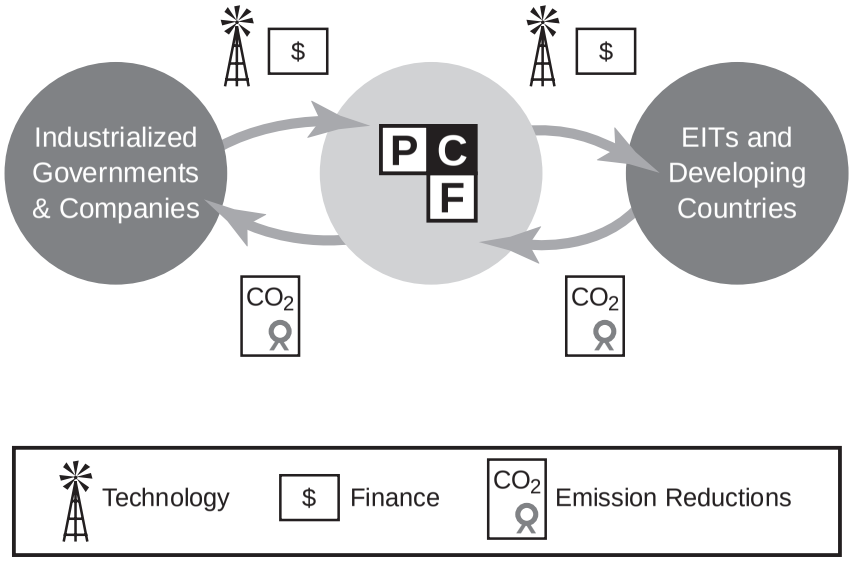
The Prototype Carbon Fund (PCF)

Investor Participants:

- Canada
- Finland
- Japan Bank for International Cooperation
- Netherlands
- Norway
- Sweden

Companies:

- British Petroleum - Amoco/Oil
- Chubu Electric Power Co./Electricity
- Chugoku Electric Power Co./Electricity
- Deutsche Bank/Financial
- Electrabel/Suez - Lyonnaise des Eaux/Energy
- Gaz de France/Energy
- Kyushu Electric Power Co./Electricity
- Mitsubishi Corp./Trade
- Norsk Hydro/Oil, Electricity
- R.W.E./Electricity
- Shikoku Power Co./Electricity
- Statoil/Oil
- Tohoku Electric Power Co./Electricity
- Tokyo Electric Power Co./Electricity



Project Host Countries:

- Latvia
- Costa Rica
- Mexico
- Guatemala
- Argentina
- El Salvador
- Brazil
- Nicaragua
- Togo
- Senegal
- Zimbabwe
- Burkina Faso
- Uganda
- Czech Republic
- Honduras
- Colombia
- Morocco

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