Global Greenhouse Emissions TRADER

A newsletter dedicated to climate change abatement and greenhouse gas emissions trading

The Kyoto Protocol—some key elements

by Frank T. Joshua and Dianna Dinevski

The Kyoto Protocol to the United Nations Framework Convention on Climate Change was formally adopted on 10 December 1997 by the third Conference of the Parties (COP 3) meeting in Kyoto, Japan. It provides for differentiated legally-binding commitments by Annex 1 Parties to collectively reduce their emissions of greenhouse gases by an average of 5.2 per cent below 1990 levels in the first commitment period 2008–2012. Flexibility mechanisms include: international emissions trading; joint implementation among Annex 1 Parties; multi-country bubbles; and crediting for certified emission reductions in non-Annex 1 countries via the Clean Development Mechanism (CDM).

Highlights from the Kyoto Protocol

- The Kyoto Protocol covers six greenhouse gases not covered by the Montreal Protocol. These are: carbon dioxide (CO_2); methane (CH_4); nitrous oxide (N_2O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulphur hexafluoride (SF_6). **(Art.3 (1)).** *(See Box 1 on page 2).*
- Annex 1 Parties, individually or jointly, will ensure that their carbon dioxide equivalent emissions do not exceed their assigned amounts. This would result in overall emissions reductions of 5.2 per cent below 1990 levels in the commitment period 2008 to 2012. **(Art.3 (1)).** *(See Box 2 on page 2).*
- By 2005, each Annex 1 Party must demonstrate progress in achieving its commitments. **(Art. 3 (2)).**
- Annex 1 Parties can use net changes in GHG emissions (from sources and sinks) resulting from direct human-induced land use change and forestry activities, limited to afforestation, reforestation, and deforestation since 1990, to meet their commitments. **(Art. 3(3)).**
- Annex 1 Parties can carry forward unused allowances from one commitment to another. **(Art.3 (13)).**
- In implementing their commitments, Annex 1 Parties shall strive to minimize adverse social, environmental and economic impacts on developing country parties. Such measures could include the establishment of funding, insurance and transfer of technology. **(Art.3 (14)).**
- Annex 1 Parties that have agreed to jointly fulfil their commitments are allowed to do so by setting out their respective emission level in an agreement (the 'Bubble' concept). **(Art. 4 (1)).**
- Each Annex 1 Party must have in place, no later than one year prior to the start of the first commitment period, a national system for the estimation of emissions by sources and removals by sinks. **(Art. 5 (1)).**
- Annex 1 Parties can trade (transfer to, or acquire from) among themselves emission reduction units (ERUs) resulting from projects aimed at reducing emissions by sources or enhancing removals by sinks in any sector of the economy (subject to guidelines for implementation). **(Art. 6 (1)).**
- Any Annex 1 Party may authorize legal entities to participate, under its responsibility, in actions leading to the generation and trading of ERUs. **(Art. 6 (3)).**
- Expert review teams will be set up to examine annual compliance reports submitted by Parties, as part of the annual compilation and accounting of emissions inventories and assigned amounts. **(Art. 8 (1)).**
- A Clean Development Mechanism (CDM) was defined. Its role would be to assist non-Annex 1 Parties in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Annex 1 Parties in achieving compliance with their quantified emission limitation and reduction commitments (QELRCs).
  - Under the CDM: Non-Annex 1 Parties will benefit from project activities resulting in certified emission reduction (CERs).
  - Annex 1 Parties can use the CERs to contribute to their compliance with part of their CELRCs.
  - CERs must be certified by operational entities to be designated.
  - Modalities and procedures to be elaborated.

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In this issue:

- Participation in the CDM is voluntary and may involve both public and private entities.
- CERs obtained during the period from the year 2000 up to 2008 can be used towards compliance in the first commitment period. **(Art. 12)**

- Parties are allowed to participate in emissions trading for the purpose of fulfilling their commitments. The COP is required to define the relevant principles, modalities, rules and guidelines in particular for verification, reporting and accountability for emissions trading. **(Art.17).**
- Effective procedures and mechanisms to determine and address cases of non-compliance are to be decided by the first meeting of the Parties to the Protocol. **(Art.18).**

Box 1: Six greenhouse gases covered by the Kyoto Protocol (but not covered by the Montreal Protocol)

Carbon dioxide (CO_2)

Methane (CH_4)

Nitrous oxide (N_2O)

Hydrofluorocarbons (HFCs)

Perfluorocarbons (PFCs)

Sulphur hexafluoride (SF_6)

- The Protocol will be open for signature at United Nations Headquarters in New York from 16 March 1998 to 15 March 1999. **(Art.24 (1)).**
- The Protocol will enter into force 90 days after the date on which not less than 55 Parties to the Convention have ratified it, including Annex 1 Parties which accounted in total for at least 55 per cent of the total Annex 1 carbon dioxide emissions for 1990. **(Art. 25).**

Box 2: Annex 1 countries' emission limits/reduction commitments under the Kyoto Protocol

Party	QELRCs**	Party	QELRCs**
Australia	108	Lichtenstein	92
Austria	92	Lithuania*	92
Belgium	92	Luxembourg	92
Bulgaria*	92	Monaco	92
Canada	94	Netherlands	92
Croatia*	95	New Zealand	100
Czech Republic*	92	Norway	101
Denmark	92	Poland*	94
Estonia*	92	Portugal	92
European Community	92	Romania*	92
Finland	92	Russian Federation*	100
France	92	Slovakia*	92
Germany	92	Slovenia*	92
Greece	92	Spain	92
Hungary*	94	Sweden	92
Iceland	110	Switzerland	92
Ireland	92	Ukraine*	100
Italy	92	United Kingdom of Great Britain and Northern Ireland	92
Japan	94	United States of America	93
Latvia*	92		

*Countries that are undergoing the process of transition to a market economy.
**Quantified emissions limitation or reduction commitment (percentage of 1990 levels).

The Kyoto Protocol: implications for emissions markets

by Douglas Russell

One of the most significant outcomes at the Third Conference of the Parties (COP 3) to the Framework Convention on Climate Change (FCCC), held in Kyoto, relates to provisions for Parties to pursue emissions trading, and/or the transfer of emission reduction units, in fulfilment of their greenhouse gas reduction and/or limitation commitments. Broadly speaking, emissions trading covers all reductions, or any part of an assigned amount, as identified in Article 6 (Joint Implementation (JI) between Annex 1 Parties), Article 12 (the Clean Development Mechanism) (CDM) and Article 17 (Emissions Trading).

Article 17: Emissions Trading

There are a number of critical questions left to resolve on the issue of emissions trading. The first is the extent to which the structure should directly govern emission trading activities amongst participants. Some Parties would prefer to see a fairly simple international structure established, one that collects and shares information with other Parties on the transactions that have taken place. Other Parties are concerned about the credibility of emissions trading should the international rules not also ensure equal access on the part of all Parties to emission reduction credit opportunities. Another important question is how much emissions trading a Party can use in

fulfilment of its mitigation commitments, as compared to domestic actions. As is the case with the provisions on JI between Annex 1 Parties and the CDM, emissions trading is required to be 'supplemental' to domestic actions. What supplemental actually means in quantitative terms is not addressed. Some Parties expressed a preference for assigning a quantitative limit to how much international trading could actually be pursued. Others expressed strong concerns that any such definition would be unduly intrusive. In the light of these issues, a separate COP 3 decision mandated COP 4 to 'define relevant principles, modalities, rules and guidelines, in particular for verification, reporting and accountability for emissions trading'.

Article 12: The Clean Development Mechanism

The Kyoto Protocol established a Clean Development Mechanism that facilitates, and credits, collaborative projects between non-Annex 1 (developing countries) and Annex 1 Parties. In addition to assisting non-Annex 1 Parties to achieve sustainable development and contribute towards the ultimate objective of the FCCC, the purpose of the CDM is to assist Annex 1 Parties in meeting their emission limitation and reduction commitments under the Protocol.

While the CDM is subject to the authority and guidance of the Conference of the Parties to the Protocol, an executive board is also established, and is mandated to supervise the CDM's activities. The Protocol, at its first session, is to elaborate modalities and procedures with the objective of ensuring transparency, efficiency and accountability through independent auditing and the verification of project activities. The COP is also mandated to ensure that a share of the funds acquired through certified projects will be used to cover costs.

In addition to supervising the overall operation of the CDM, the executive board's main order of business will be to approve and certify all relevant projects. The precise composition and mandate of the executive board will require considerable elaboration. Conditions for certified emission reductions (CERs) that Annex 1 Parties can use towards fulfilment of their emission limitation and reduction commitments include the approval of each Party involved; real, measurable and long-term benefits related to the mitigation of climate change; and a demonstration that reductions in emissions are additional to any that would otherwise have occurred. It is not clear how the additionality condition can be empirically demonstrated, nor is the question of how one actually establishes the achievement of long-term benefits answered.

Finally, credits for certified emission reductions are allowed from the year 2000 to the beginning of the first commitment period (2008) to be counted towards Annex 1 countries' emission limitation and reduction commitments.

Article 6: Joint Implementation Between Annex 1 Parties

Article 6 of the Kyoto Protocol allows Annex 1 Parties, for the purposes of meeting their emission reduction commitments, to transfer to, or acquire from, any other Annex 1 Party, emission reduction units (ERUs) resulting from projects aimed at reducing anthropogenic emissions at source or enhancing anthropogenic removals by sinks of greenhouse gases. This Article allows for Annex 1 Parties to pursue and implement discrete projects between countries, or recognized sub-national legal entities within those countries, that result in a net reduction of greenhouse gas emissions. Projects must receive the approval of all Parties involved, and any resultant emission reduction units must be in compliance with relevant guidelines for the estimation and current inventory of countries' greenhouse gas emissions. In addition, participants in JI activities must demonstrate that their project provides environmental benefits that are 'additional' to any that would otherwise occur. Establishing clear guidelines for determining which projects would not otherwise have occurred will be difficult to rationalize empirically, and the lengthy time it may take to determine 'additionality' could become a barrier to the establishment of a robust JI system.

Forthcoming Events

May 4–5, New Orleans, USA
Second Annual Emissions Marketing Association Spring Conference. Organized by the EMA
Contact: Dan Chartier
Tel: (1 414) 221 4618 Fax: (1 414) 221 2169
Email: dan.chartier@wepco.com

May 11–12, London, UK
Conference on Emerging Markets for Emissions Trading: Opportunities from the Kyoto Protocol and the Implications for Business. Sponsored by UNCTAD Secretariat and supported by DTI and DETR and hosted by the Institute of Petroleum.
Contact: Conference Administrator, Institute of Petroleum, 61 Cavendish Street, London W1M 8AR, UK
Fax: (44 171) 255 1472

May 13–15, London, UK
Third Session of the Greenhouse Gas Emissions Trading Policy Forum. Organized by UNCTAD and the Earth Council.
Contacts: Frank T. Joshua, UNCTAD Secretariat, Geneva, Switzerland
Tel: (41 22) 917 5834 Fax: (41 22) 907 0274
Email: frank.joshua@unctad.org
Stephanie Foster, Earth Council, Toronto, Canada
Tel: (1 416) 498 3150 Fax: (1 416) 498 7296
Email: ecfoster@web.net

June 2–12, Bonn, Germany
Meetings of the Subsidiary Bodies of the UNFCCC.
Contact: UNFCCC Secretariat, P.O. Box 260 124, D-53153, Bonn Germany
Tel: (49 228) 815 1000 Fax: (49 228) 815 1999
Email: secretariat@unfccc.de

June 18–19, Sydney, Australia
Conference on Emissions Trading. Organized by IBC Conferences.
Contact: Jelle Marechal
Tel: (61 2) 9290 1133 Fax: (61 2) 9290 2577
Email: jelle.marechal@ibcoz.com.au

August 30–September 2 Interlaken, Switzerland
Fourth International Conference on GHG Control Technologies, International Energy Agency GHG Research and Development Programme.
Contact Andrea Smith (UK)
Tel: (44 124) 268 0753
E-mail: andrea@ieagreen.demon.co.uk

Market makers in greenhouse gases—rewards for emissions reduction transactions

by Alice LeBlanc

The Kyoto Protocol is only three months old and still quite a way from ratification by the required number of Parties. Procedures and details to implement the Protocol have not yet been specified by the Conference of the Parties. Nor have comprehensive domestic regulations been proposed in Annex I Parties to ensure compliance with quantified emissions limitations or reduction commitments.

Nonetheless, private companies, most notably in the US and Canada, have already begun to engage in emissions trading. The regulatory risk associated with these trades is relatively high (i.e. the risk that some or all of the emissions reductions will not be credited under domestic regimes or under the FCCC). Thus, these trades provide an example of initiatives mainly from private sector companies that are investing to reduce emissions as well as to promote the development of the emissions trading mechanism.

The following are some of the transactions that have occurred, a few in advance of the Kyoto Protocol, but most either in anticipation or shortly afterwards:

- The Edison Electric Institute, an association of investor-owned utilities in the US, has used members' contributions to fund five forestry offset projects, both in the US and abroad. Participants will share the CO_2 offsets on a *pro rata* basis. Some of the projects have been contributing to reduced carbon in the atmosphere for more than two years.
- In July 1996, the Government of Norway, and the Consorcio Noruego, a consortium of three private Norwegian companies, agreed to purchase 200,000 creditable, tradeable offsets (CTOs) from the Costa Rican government for $2 million, or $10 per metric ton of carbon. The purchase was made in conjunction with the expansion and reconstruction of a hydro electric plant in Costa Rica with work done by the Norwegian group. The money will be used for reforestation and forest conservation as part of Costa Rica's nationwide Joint Implementation initiative, the Private Forestry Project.
- In May 1997, Centre Financial Products Ltd., a US company, purchased 1,000 metric tons of carbon (equalling the average annual carbon emissions of 900 US cars) in the form of Certifiable Offsets (CTOs) from the Government of Costa Rica. The CTOs are produced by the Protected Areas Project and are being independently certified by Société Générale de Surveillance (SGS).
- Arizona Public Service (APS) and Niagara Mohawk, two US utilities, traded CO_2 emissions reductions for SO_2 emissions allowances in December, 1996. Niagara Mohawk transferred 2.5 million tons of CO_2 reductions achieved through its emissions reduction activities to APS. These tons were 'surplus', that is beyond what was needed to achieve a 1990 emissions level from its operations. In return APS transferred SO_2 allowances that it held in excess of what was required for compliance under US domestic regulations. The value of the CO_2 reductions was estimated at $2.70/metric ton of carbon, based on the market value of SO_2 allowances.
- In 1997, British Petroleum International announced that it is setting up a pilot program of internal emissions trading across selected, diverse business units worldwide. Ten to twelve business units, out of ninety in the company, will trade among themselves. The program is in the design phase with consideration being given to devising a voluntary 'cap' and allowing opportunities for trade outside the core group.
- In December 1997, Suncor Energy, a Canadian energy company, agreed to contribute to the extension of a forestry preservation and regeneration project in Belize, approved by the US Initiative on Joint Implementation. The investment is in exchange for 400,000 to 600,000 metric tons of CO_2 emissions avoided and sequestered over a 30-year period. The project is owned and operated by the Programme for Belize, with support from The Nature Conservancy, a US environmental group.
- Ontario Hydro, a Canadian utility, agreed in principle to purchase 10,000 tons of CO_2 emissions reductions from Southern California Edison, a US utility, in December, 1997. These credits are the result of energy efficiency improvements at one of the California utility's power plants.
- In December, 1997 the Greenhouse Gas Emissions Consortium (GEMCo), a group of Canadian utilities and energy companies formed to identify and invest in carbon reduction opportunities, signed a letter of intent with Northeast Utilities, a US utility, to purchase a 10-year stream of carbon credits derived from a landfill methane gas utilization project in the town of Groton, Connecticut. The methane utilization project involves the use of a fuel cell and is sponsored by Northeast Utilities. The transaction is to be structured as a ten-year loan from GEMCo to Northeast Utilities with a portion of the interest to be paid in emissions reductions. The price of the reductions is fixed for the first two years and then will be pegged to a market price, if one is available.
- In March, 1998 Suncor Energy, a Canadian energy company, agreed to purchase 100,000 metric tons of CO_2 reductions from Niagara Mohawk, a US utility, with an option to buy an additional 10 million tons reduction over a 10-year period. The 100,000

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UNCTAD Organizes 'Emissions Trading Week' in London (11–15 May 1998)

• *Two Major Events* •

1 Emerging markets for emissions trading: opportunities from the Kyoto Protocol and the implication for business

Commonwealth Institute, London, 11–12 May 1998

DAY ONE: *Monday, 11 May 1998*

SESSION 1: Climate Change and the Financial Sector—An Explanation of the Carbon Emissions Trading Programme

Chairman's Introduction and Welcome
Chris Moorhouse, President Elect, The Institute of Petroleum, and Chief Executive, BP Oil International UK

Introductory Speech
Michael Zammit Cutajar, Executive Secretary, United Nations Framework Convention on Climate Change

Opening Address
Carlos Fortin, Deputy Secretary-General, UNCTAD

Keynote Address
The Rt. Hon. Michael Meacher MP, Minister for the Environment

Introducing the Greenhouse Gas Emissions Market and the Kyoto Protocol
Michael Grubb, Head of Energy and Environment Programme, The Royal Institute of International Affairs, UK

Getting Started: Early Beginnings, Small Steps
Richard L. Sandor, Chairman and CEO, Centre Financial Products Ltd., USA

Industrial Implications of the Kyoto Protocol
Terrence Thorn, Executive Vice-President, Environmental & International Government Affairs, ENRON Corporation, USA.

How will Tighter Emission Reduction Targets Affect the Gas Industry in both the Developed and Developing Worlds?
David Varney, Chief Executive, BG plc, UK

Questions and Open Discussion

• LUNCH

SESSION 2: What does Climate Change Mean for Energy Providers, and What are the Strategic Implications for their Businesses?

Chairman: Carlos Fortin, Deputy Secretary-General, UNCTAD

Keynote Address
Adair Turner, Director-General, CBI, UK

What does Kyoto Mean for a Major Energy Provider?
Thomas Fair, Vice President, Environmental Affairs and Ethics, Niagara Mohawk Power Corp., USA

The Utility Perspective and the Implications for Business: New Challenges for the Electricity Industry
Daniel Chartier, Manager, Emissions Trading, Wisconsin Electric Power, USA

Case Study—An Analysis of the American SO_2 Allowance Programme: A Blueprint for a CO_2 Emissions Market
Brian McLean, Director, Acid Rain Division, US Environmental Protection Agency, USA

Business Forum—A Round-Table Discussion Covering Today's Topics with the Following Panellists:
William Kyte, Head of Corporate Environment Unit, PowerGen plc, UK;
Terrence Thorn, Senior Vice-President, ENRON Corporation, USA;
Charles Nicholson, Senior Advisor, British Petroleum plc, UK;
Franz Knecht, Vice-Director, Swiss Bank Corporation, Switzerland;
Thomas Fair, Senior Vice-President; Niagara Mohawk Power Corp., USA

Chairman's Closing Remarks

• EVENING RECEPTION AND DINNER:
ALL DELEGATES ARE INVITED TO ATTEND

DAY TWO: *Tuesday, 12 May 1998*

SESSION 3: What Opportunities will Climate Change Offer for the Financial and Services Sector?

Chairman's Introduction and Opening Comments
Geoff Haley, Head of Infrastructure Group, S. J. Berwin and Co., UK

The Clean Development Mechanism and its Role
Luiz Gylvan Meira Filho, President, Brazilian Space Agency, Brazil

The Cost Rican Experience with Certifiable Tradeable Offsets
Franz Tattenbach, Director, Cost Rican Office of Joint Implementation, Costa Rica

Project Finance, Climate Change and Investing in Energy Projects—A Focus on Central and Eastern Europe
John Irving, Senior Engineer and Banker, Energy Department, European Bank for Reconstruction and Development;
Koen Peters, Banker, European Bank for Reconstruction and Development

The World Bank's Investment Strategy and Climate Change
Ken Newcombe, Division Chief, World Bank, USA

Developing a Prototype Emissions Contract
Richard Ward, Executive Vice President of Business Development, International Petroleum Exchange, UK

SESSION 4: Climate Change and the Quest for Clean Energy

Chairman: Richard L. Sandor, Chairman and CEO, Centre Financial Products Ltd., USA

Greenpeace and its Pursuit for Renewable Energy
Bill Hare, Director for Climate Change, Greenpeace International, The Netherlands

Questions and Open Discussion

• LUNCH

Nuclear Power—Time for a Reassessment
John R. S. Guinness CB, Chairman, British Nuclear Fuels plc., UK

The Solar Industry: Gearing up for Entrance into the Energy Markets
Derek Norman, Environmental Affairs, Pilkington plc., UK

SESSION 5: Public/Private Transportation—What does the Future Hold?

Chairman, Maurice Strong, Chairman, Earth Council, Executive Coordinator for UN Reform and Senior Advisor to the President of the World Bank

Public Transport and the Environment—Is it Ready to Replace the Car as the Main Transport Mode of the Masses?
Denis Tunnicliffe CBE, Managing Director, London Underground, UK

The Car and the Environment—Entering a New Era?
Speaker to be announced

Questions and Open Discussion

Chairman's Concluding Comments and Close of Conference

General Information

Sponsors: The Conference is sponsored by UNCTAD and supported by the UK's DTI and DETR. It will be hosted by the Institute of Petroleum.

Venue: The Conference will be held at the Commonwealth Institute in Kensington, London W8, U.K. (Nearest underground stations: High Street Kensington, Earls Court and Holland Park).

Registration: The registration fee of £995.00 plus VAT of £174.13 (Total £1,169.13) includes attendance at all sessions, full conference documentation, refreshments, lunch on both days and the Conference Dinner on Monday, 11 May.

To register, please contact:
Conference Department, The Institute of Petroleum, 61 New Cavendish Street, London W1M 8AR, UK
Tel: (44 171) 467 7100 Fax: (44 171) 255 1472
E-mail: pashby@petroleum.co.uk

2 Third Session of the Greenhouse Gas Emissions Trading Policy Forum

DTI Conference Centre, London, 13–15 May 1998 , organized by UNCTAD and The Earth Council, in collaboration with UNEP

PROGRAMME SUMMARY

Wednesday, 13 May 1998

Advanced Registration
(at designated hotels)

Official Reception—The Silver Barracuda
(on the Thames)

Thursday, 14 May 1998

Opening Session
Chairman: Maurice Strong

High-Level Platform
Theme—Global Business, Emissions Markets and Climate Protection: Perspectives from Business Leaders and the International Community

Review of Kyoto Results and Implications for the Policy Forum

Review of Policy Forum Activities and Next Steps

- LUNCH

Policy Framework Working Group

Chairman: Maurice Strong

National Emissions Reporting and Verification
- Concept and practice of national emissions reporting
- Verification of national reports
- Institutional and administrative requirements for adequate reporting and verification
- Group Discussion
- Chairman's Review and Summary

Markets Working Group

Chairman: Richard Sandor

Monitoring and Reporting for Emissions Sources and Sinks
- Monitoring processes, protocols for projecting emission impacts of conservation investments: the sovereign view
- Reporting emissions and emissions trades: the industry view
- Monitoring processes for sinks: certification agents' view
- Group Discussion
- Chairman's Review and Summary

- OFFICIAL DINNER, THE SCIENCE MUSEUM

Friday, 15 May 1998

Policy Framework Working Group

Chairman: Maurice Strong

National and International Accountability for Emissions Trading
- Key issues and concerns regarding accountability
- Institutional and administrative requirements for national and international accountability for emissions trading
- Group Discussion
- Chairman's Review and Summary

Markets Working Group:

Chairman: Richard Sandor

Emissions Source and Technology Verification
- Verification methodologies for methane
- Practical experience with verification of Corporate Environmental Reports
- Equipment certification processes
- Group Discussion
- Chairman's Review and Summary

Plenary Session

Working Groups Summary Reports and Discussion

Briefing on work in progress
(i) BP's internal emissions trading scheme
(ii) NAFTA Emissions Trading Initiative
(iii) Ad hoc preparatory meetings
(vii) Draft International Legal Agreement

Closing Session:

Chairman's Summary

- LUNCH AND TOUR OF THE HOUSE OF COMMONS

General Information

Recommended Hotels:

The Rubens Hotel, at the Palace
The room rate is £135 + vat. Please quote reference #10764 to receive this preferred rate. The Rubens Hotel, 39 Buckingham Palace Road, London
Tel: (44 171) 834 6600 Fax: (44 171) 828 5401

Holiday Inn, Victoria
The room rate per room is £120 including vat. Please quote 'Finders' to receive this preferred rate. Holiday Inn-Victoria, 2 Bridge Place, London,
Tel: (44 171) 834 8123 Fax (44 171) 630 0685

Participants should make their own hotel arrangements.

For further information, please contact:

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tons of reductions purchased will come from Niagara Mohawk's solar, wind and biomass electricity generation in the years 1998–2000. In addition, the reductions will be surplus to Niagara Mohawk's target of 7 per cent below 1990 CO_2 emissions levels. If the options are exercised, the additional 10 million tons will also come from Niagara Mohawk's surplus reductions and represent reductions from new projects.

- Sumitomo, the Japanese trading house, announced in March, 1998 that it will help United Energy System, a Russian power generation group, to reduce emissions by working to replace outdated equipment in 28 power plants. New technology and fuel switching from coal to natural gas are expected to reduce emissions of CO_2 by 10 million tons per year. This could provide Japan with credit equivalent to 3 per cent of its annual emissions.

Global Greenhouse Emissions
TRADER
can be obtained free of charge from:
UNCTAD Secretariat
Greenhouse Gas Emissions Trading Project
Palais des Nations, 1211 Geneva 10, Switzerland
For further information, contact:
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Tel: (41 22) 917 5834/5831 Fax: (41 22) 907 0274
e-mail: frank.joshua@unctad.org
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