



NOTICE TO MEMBERS

No. 2007 – 105

October 5, 2007

REQUEST FOR COMMENTS

NEW PRODUCTS: FUTURES CONTRACTS ON CARBON DIOXIDE EQUIVALENT (CO₂e) UNITS

Addition of new Rules C-19 and C-20 and Amendments to Rule A-1A of CDCC's Rules

Summary

The Board of Directors of the Canadian Derivatives Clearing Corporation (CDCC) approved the addition of new Rules C-19 and C-20 and amendments to Rule A-1A of CDCC's Rules. These additions and amendments to the Rules will permit the clearing by CDCC of CO₂e futures contracts following the listing and trading of futures contracts on carbon dioxide equivalent units on the electronic trading platform of Bourse de Montréal Inc.

You will find enclosed the analysis document of the proposed rule amendments as well as the proposed regulatory amendments.

Process for Changes to the Rules

CDCC is a recognized self-regulatory organization (SRO) by the Autorité des marchés financiers (the Autorité) and as such, carries on activities as a clearing house and as an SRO in Québec.

The Board of Directors of CDCC has the power to approve the adoption or amendment of Rules of CDCC. The amendments are submitted to the Autorité for approval.

Comments on the proposed addition of Rules C-19 and C-20 and amendments to Rule A-1A of CDCC's Rules must be submitted within 30 days following the date of publication of the present notice in the bulletin of the Autorité des marchés financiers. Please submit your comments to:

*Ms. Joëlle Saint-Arnault
Secretary
Canadian Derivatives Clearing Corporation
Tour de la Bourse
P.O. Box 61, 800 Victoria Square
Montréal, Québec H4Z 1A9
E-mail : legal@m-x.ca*

A copy of these comments shall also be forwarded to the Autorité to :

*Ms. Anne-Marie Beaudoin
Director – Secretariat of L'Autorité
Autorité des marchés financiers
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NEW PRODUCTS: FUTURES CONTRACTS ON CARBON DIOXIDE EQUIVALENT (CO₂e) UNITS

Addition of new Rules C-19 and C-20 and amendments to Rule A-1A of Canadian Derivatives Clearing Corporation (CDCC)

Preamble

Some sections of this analysis, namely sections II (*Background*), III (*Detailed Analysis*) and IV (*Proposed Products*) are identical to the corresponding sections of the analysis prepared by Bourse de Montréal Inc. (the Bourse) in connection with the intended listing by the Bourse of futures contracts on Carbon Dioxide Equivalent (CO₂e) Units and the resulting regulatory amendments to the Rules of the Bourse. The reason for this is that these sections are relevant not only to the Bourse, but also to CDCC.

I. Proposed Regulatory Amendments

CDCC proposes to: (a) add two new Rules, namely Rule C-19 - *Futures contract on Carbon Dioxide Equivalent (CO₂e) Units with Physical Settlement* and Rule C-20 - *Futures contract on Carbon Dioxide Equivalent (CO₂e) Units with Cash Settlement* to CDCC's Rules, and (b) amend Rule A-1A - *Membership In The Corporation*. All these additions and amendments to CDCC's Rules will permit the clearing by CDCC of futures contracts on Carbon Dioxide Equivalent (CO₂e) Units (hereinafter "CO₂e futures contracts").

II. Background

A. The Montréal Climate Exchange

The Montréal Climate Exchange (MCeX) is the product of an alliance between the Bourse and the Chicago Climate Exchange® (CCX) which combines environmental know-how with a trading and clearing infrastructure well established within a regulated market framework.

The Bourse will first implement a trading mechanism with which to meet the needs for reduction in greenhouse gas (GHG) emissions as determined by the federal government. Such a trading mechanism is commonly known as a "carbon exchange". Thereafter, it will focus on other air pollutant emissions reductions and other environmental issues.

In the event that the federal government establishes mandatory reduction targets, the MCeX will offer:

- A price discovery process which can generate the price signal so highly coveted by industrial companies; and
- Price risk management facilities through futures contracts.

The Bourse is bringing its values of transparency and security to this new market. The carbon exchange is likely to attract a large number of economic agents such as industries, investment banks and investors, thereby ensuring the liquidity of the CO₂e futures contract on the Canadian market.

B. The role of a carbon exchange

A carbon exchange is not an end in itself, but rather a mean to helping companies adjust to new environmental realities cost-effectively and motivating them to further reduce their GHG emissions. It is a powerful tool in the fight against climate change.

On the one hand, companies that need to adapt their GHG emissions reduction target to their economic reality and that cannot immediately meet such reduction target will be able to buy carbon dioxide equivalent units (“units”) on the market to avoid government-imposed non-compliance costs, thus creating a market demand. The reduction target levels established by the government will impact the demand for or the scarcity of units, and ultimately, on their value.

On the other hand, as soon as an economic value will be attached to a reduction effort, companies will be encouraged to reduce their GHG emissions below the prescribed threshold by developing and using new technologies permitting such reductions or promoting energy-efficiency measures, given the possibility of financing their efforts through the sale of units thus creating the market supply.

It is this synergy between buyers and sellers, or between supply and demand, that will create a market and generate a price signal that will help companies achieve their GHG emissions reduction targets at minimum costs. This price signal coveted by industrial companies will allow them to evaluate their environmental costs, if they have to buy units, or the economic value they can obtain from the sale of such units to finance their GHG emissions reduction projects. In this way, the price signal from the market will encourage good environmental behaviour and have a positive ripple effect on GHG emissions reduction.

C. The role of the government

It is important to point out that the trading mechanism will be effective only if the market is extensive and competitive, that is, if there is a large number of buyers and sellers and if marginal GHG emissions reduction costs are not the same for all the companies. In this regard, the government has an important role to play in the trading synergy. On the one hand, it will impact demand by establishing regulated GHG emissions reduction targets and, on the other hand, it will impact supply by determining the units eligible for compliance. By adopting the Polluter Pays Principle and setting mandatory emissions reduction targets for the industrial sectors responsible for most of the GHG emissions, the government will create a scarcity effect and will thereby promote the creation of a carbon exchange.

D. The international experience

Numerous experiments have already been conducted worldwide regarding emissions trading systems, mainly related to reducing acid rain in North America and reducing GHG emissions in Europe. There is a current consensus around the world that by relying on market forces, it is possible to reduce GHG emissions cost-effectively, while, at the same time, promoting sustainable development.

The challenge for governments is to maintain a balance between environmental and economic considerations, hence the diversity of the terms and conditions of the national GHG reduction programs implemented worldwide. In fact, while the carbon market is becoming a reality more and more established around the world, with an estimated unit trading value of US\$30 billion in 2006, three times higher than the previous year, the establishment of a unique carbon price is still a pipe-dream. Generally-speaking, the regional supply and demand synergy, that generates the price signal, is limited to the scope of regional compliance programs (i.e. Europe, Australia, Canada).

As an example, the price of one tonne of CO₂ for delivery in 2008 is approximately 21 € on the European market. On the other hand, on the voluntary Chicago Climate Exchange® in the United States, the price of a tonne of CO₂ is approximately US\$3.

Only units traded as part of GHG emissions reduction projects carried out under the Kyoto Protocol in emerging countries such as China, India or Brazil are international in scope. The price of these units, for delivery in 2008, is approximately 17 €/tonne on the secondary markets like the Nordpool exchange in Europe.

In addition to the US\$30 billion traded on carbon markets worldwide, large investment corporations also invested in 2006 close to US\$70 billion in new innovative environmental projects. These investments were funnelled mainly into public, venture capital and private placement corporations or the financing of green technologies. Thus, the global carbon market is currently worth close to US\$100 billion¹.

E. The Canadian reality

Currently, the energy sector, and more specifically power production, is the overriding determinant of GHG emissions. Coal-fired power stations generate approximately twice as many GHG emissions as gas-fired plants. Notwithstanding bituminous sand oil extraction, which is a major source of GHG, gas-fired plants are greater pollutant producers than hydro-electricity and nuclear energy plants. In such a context, the federal government decided to adopt intensity-based GHG emissions reduction targets, which aim at GHG emissions reduction performance, rather than absolute emissions reduction targets. These targets are designed to promote a balance between Canada's economic growth and the need to reduce GHG emissions. Adopting intensity-based targets does not prevent the development of a carbon market in Canada.

As part of the **federal plan published in April 2007**², key industrial emitters will be able to choose from among the following three compliance measures in order to ensure compliance with their GHG emissions reductions obligations in Canada:

1) Buying units on the domestic carbon market:

- Regulated Emitters' Credits: These credits will be issued by government authorities at the end of a compliance year to regulated emitters that reach their intensity-based GHG emissions reduction targets and reduce also the intensity of their GHG emissions below the target established by the federal government. These emitters will be able to sell their credits on the market or keep them for subsequent compliance years.
- Offset Credits: Offset credits will be attributed to companies that will not be subject to intensity-based emissions reduction targets but that will be involved in voluntary projects to reduce their eligible GHG emissions.

The futures contracts proposed by the Bourse will be based on these Canadian units.

2) Contributing to a technology fund:

- The contribution to this fund will be limited to 70% of emitters' compliance needs in 2010. However, this contribution rate will gradually be reduced between 2011 and 2017, and the contribution limit will completely disappear in 2018. The fund's contribution rate has been fixed at \$15/tonne of CO₂e between 2010 and 2012 and \$20/tonne in 2013. The contribution rate would then be indexed to the nominal GDP.

3) Buying international units (CERs or Certified Emission Reductions) under the Kyoto Protocol's Clean Development Mechanism (CDM). Access to CER credits for compliance purposes would be limited to 10% of each regulated emitters' target.

During consultations conducted by the Bourse with the key CO₂e industrial emitters in Canada, they informed us of their interest for a Canadian carbon market. Thus, for those regulated emitters wishing to comply with mandatory targets, a market-based solution such as the MCEX for acquiring units through the futures market will be an attractive alternative (i) if the price per tonne of carbon on this market is lower than that of the Technology Fund and/or (ii) for the percentage of units that cannot be acquired through the Technology Fund (for example 30% in 2010, 60% in 2015

¹ World Bank: State and Trends of the Carbon Market 2007 http://carbonfinance.org/docs/Carbon_Trends_2007- FINAL - May_2.pdf pp.3-12

² Environment Canada: Regulatory Framework for Industrial Air Emissions http://www.ec.gc.ca/doc/media/m_124/report_eng.pdf

and 100% in 2018). For other regulated emitters, the attraction of a carbon exchange lies in the price signal generated, which will:

- Encourage companies to reduce their GHG emissions below the prescribed target, given the possibility of financing their reduction efforts through the sale of units.
- Stimulate investments in green technologies and promote renewable energies.

Thus, the federal plan published in April 2007 will create *minimal* conditions for the establishment of a carbon market in Canada. While these conditions are not optimal given the other compliance options available to regulated industrial emitters (Technology Fund and international units), the Bourse has announced its intention to launch a carbon market. Such market is now scheduled for launch in early 2008.

III. Detailed Analysis

A. Features of the Canadian trading system

Regulated emitters' existing facilities (i.e. facilities operating before 2004) would be subject to an annual mandatory reduction target of 6% of the intensity of their GHG emissions from 2007 to 2010, compared with the 2006 level. For the following years, the annual target would be 2% until 2020.

For new facilities (i.e. facilities operating since 2004 or after), no reduction would be required for the first three years of operation, but afterwards these facilities would be subject to an annual target of 2% until 2020.

According to Environment Canada forecasts, meeting these targets for existing and new facilities would bring emissions reductions to 49 MT in 2010, 72 MT in 2015 and 88 MT in 2020 compared with emission levels projected for each of these years in the absence of regulation³. It is this gap that emitters will have to bridge through the use of the carbon market, among others, in order to comply with their reduction target.

The system proposed by the Canadian government is described as a "baseline and credit system". This system is based on the allocation of units to a company for exceeding its intensity-based GHG emissions reduction targets (1 credit = right to emit one tonne of CO₂e, e.g. carbon dioxide equivalent*). The details regarding reduction target will be announced by the Canadian government in the fall of 2007.

The baseline and credit system works like this: at the end of each compliance year, the emissions of the industrial emitters concerned will be verified. Each emitter must then offset its GHG emissions against its intensity-based GHG emissions reduction target established by the government. The discrepancy between the imposed target and the actual emissions may be offset by, among other things, buying units on the domestic market.

* *GHG emissions are calculated based on the equivalent quantity of carbon dioxide required to produce a similar warming effect. The six GHGs are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, sulphur hexafluoride and perfluorocarbons.*

Exchange system trading units

Canadian (or domestic) CO₂e units will stem from two sources: regulated emitters' credits and offset credits.

It should be noted that:

- The federal government anticipates perfect fungibility between the two types of Canadian CO₂e units (regulated emitters' credits and offset credits), providing a unique price signal and promoting the creation of a unique trading and delivery currency. The underlying of the CO₂e futures contracts that the Bourse intends to list will be based on this Canadian CO₂e unit.

³ Environment Canada: Clean Air Regulatory Agenda -Regulatory Framework for Industrial Air Emissions
http://www.ec.gc.ca/Content/4/F/2/4F2292E9-3EFF-48D3-A7E4-CEFA05D70C21/techbrief_e.pdf

- The Canadian CO₂e units will be transferable from one year to another.
- Offset credits will be generated from the moment a project provides verified GHG emissions reductions (as soon as eligible projects are announced by the federal government).
- Kyoto credits (CERs or Certified Emission Reductions) from international markets will not be part of the domestic trading system and will have a separate currency and price.

National registry

For the domestic GHG trading system, the federal government has announced its intention to set up a national registry (or monitoring system) to account for delivered, held, transferred and cancelled units. This registry will only electronically process cash transactions and will not recognize futures transactions. Therefore, for a futures market, it is not mandatory that the registry be operational when the futures contract is launched, but only when the contract matures, to facilitate physical delivery. A domestic cash market could emerge once a national registry is set up. Futures or forwards contracts could be traded before the attribution of units and the establishment of a registry. Canada will also have to link its national registry to that of the Clean Development Mechanism or CDM of the Kyoto Protocol (CER units), which will allow Canadian entities to participate in this international market.

Anticipated market size

The size of the Canadian market (cash and derivatives) will depend mainly on:

- The mandatory reduction target level: the absolute reductions estimated by Environment Canada are 49 MT in 2010, 72 MT in 2015 and 88 MT in 2020;
- The percentage of absolute reductions captured by the market option: a technology fund will be competing with the market option for compliance. Companies will also be able to reduce their emissions internally;
- The level of diversification of the participants: it is expected that the market will initially attract key industrial emitters for their compliance needs. They will trade mainly on futures markets in order to manage the price risk per tonne of CO₂e. However, arbitrageurs and speculators will also gradually contribute to the liquidity of futures markets by trading CO₂e futures contracts as a financial asset, with no interest in holding the underlying;
- Based on the European experience, we can also anticipate about a 50/50 split in carbon unit trading between the over-the-counter (OTC) market and organized markets; and most transactions (over 90 %) will be carried out on futures markets (the balance on cash markets).

B. The international experience

*Global market*⁴

The carbon global market has tripled its value between 2005 and 2006, for an estimated amount of US\$30 billion in terms of transactions.

Market *	Vol. (MT CO ₂ e)	Value (M \$US)
Europe: EU ETS (EUA allowances)	1,101	24,357
Australia: New South Wales	20	225
U.S.: Chicago Climate Exchange® (CCX)	10	38
Kyoto (CDM and JI International Reduction Projects: CER and ERU units)	491	5,398
TOTAL	1,625	30,018

* Acronyms:

- MT: Mega Tonnes or Millions of Tonnes
- CO₂e: Carbon Dioxide Equivalent
- EUA: European Union Allowances
- EU ETS: European Union Emission Trading Scheme
- CDM: Clean Development Mechanism
- JI: Joint Implementation
- CER: Certified Emission Reduction
- ERU: Emission Reduction Unit

It should be noted that CCX is the world's first and North America's only voluntary carbon market. In addition, the European Climate Exchange (ECX), a sister organization of CCX, is the main market for the European Union Emission Trading Scheme.

Each market has its own units, which are traded at a price that reflects supply and demand on that market:

- Units traded for domestic compliances are local in scope (EU ETS, Australia, Canada).
- Units traded using the Kyoto mechanisms (CDM ⇒ CER credits, JI ⇒ ERU credits) are international in scope.

European domestic system

Numerous experiments have been successfully conducted with regard to emission rights trading systems, mainly in Europe (EU ETS or “European Union Emission Trading Scheme”)⁵, the world's largest carbon market with nearly 70% of the global trading volume of CO₂e (1,101 MT in 2006) and 80% of the global trading value (US\$24.3 billion in 2006).

According to European legislation, each of the 25 member countries establishes a GHG emission limit for its key industrial sectors in order to meet its national reduction target, in accordance with the Kyoto Protocol. This emission

⁴ World Bank: State and Trends of the Carbon Market 2007, http://carbonfinance.org/docs/Carbon_Trends_2007- FINAL - May_2.pdf p.3.

⁵ European Commission, Questions and Answers on Emissions Trading and National Allocation Plans for 2008 to 2012, http://ec.europa.eu/environment/climat/pdf/m06_452_en.pdf

limit established in the national allowance plans is then translated into the equivalent distribution of allowances to the regulated facilities (1 allowance = right to emit 1 tonne of CO₂e).

This system is described as a “cap and trade system”, since it is based on the allocation of allowances (EUAs or European Union Allowances) to a company based on the mandatory absolute emissions limit.

The operational period of the European domestic system is divided into two phases⁶: (phase I: 2005-2007, phase II: 2008-2012). For phase I which is an exploratory phase, nearly 2,200 MT of allowances were allocated annually to over 10,000 industrial facilities. For phase II, the preparation of national allocation is under way. This phase II coincides with the first commitment period of the Kyoto Protocol. It should be noted that carbon dioxide is the only GHG covered in phase I. Other GHG could be covered in phase II. Given the newness of this European market and the uncertainty regarding the extent of the reduction objectives, the EU ETS allowance price was volatile during phase I. This volatility, caused by the fact that CO₂e permit prices are reacting to the information received by the EU ETS market, is nonetheless a sign that it is functioning smoothly.

The main exchanges active in this market are ECX/ ICE Futures, Nordpool, Powernext, EEX and EXAA⁷. ECX is currently the main organized market in Europe, with over 40% of the total transactions of the EU ETS market and 80% of the trading volume on organized markets for the year 2006. ECX/ICE trades a futures contract (ICE Futures ECX CFI Futures Contract) that is linked to 1,000 European compliance units (EUAs) (1 allowance = right to emit one tonne of CO₂e). In addition, it is traded on the electronic platform of ICE Futures, and clearing and financial security are ensured by LCH.Clearnet Ltd.

Other Initiatives

Certain provinces are evaluating the possibility to set up a link to the emerging North American carbon market established by certain American States (for example, the Regional Greenhouse Gas Initiative or “Reggi”) or to create their own carbon trading system. Currently, only Alberta has adopted its own trading system, without any link to the rest of Canada⁸.

C. The Montréal Climate Exchange (MCeX)

Market-based solution for reducing GHG emissions

There is a consensus today that the market-based solution, by providing a common price signal, is an effective, flexible way to help regulated emitters, as a group, reduce their GHG emissions cost-effectively. A carbon market is based on the principle that GHG emissions reduction costs for regulated industrial emitters are variable. Through this incentive, some will be able to reduce their GHG emissions beyond the prescribed target, at low cost, and sell this differential to other emitters with higher reduction expenses.

A derivatives market normally develops following the establishment of a liquid cash market. In the case of the carbon market, the European experience (EU ETS) shows that the opposite situation occurred. This is due to the fact that the development of a carbon cash market involves, on the one hand, the creation, attribution or allocation of trading units by a regulatory body and, on the other, the establishment of a functional registry in order to account for outstanding emissions units. Industrial companies also tend to not want to sell the units granted to offset the possibility of future needs; rather, they tend to manage the price risks related to these future needs by turning to futures markets.

⁶ European Commission : http://ec.europa.eu/environment/climat/first_phase_ep.htm and http://ec.europa.eu/environment/climat/2nd_phase_ep.htm

⁷ Climate Exchange Plc-ECX: <http://www.europeancclimateexchange.com> and <http://climateexchangeplc.com/news/trading-update>

⁸ Reggi Trading Program: <http://www.rggi.org/> and Alberta Trading System: http://www3.gov.ab.ca/env/climate/docs/Credit_Trading_System.pdf

The MCEX will be a market that will combine environmental know-how (in partnership with CCX) and a trading and clearing infrastructure already established by the Bourse, within a regulated market framework. The main benefits provided to stakeholders by the MCEX offering CO₂e futures contracts will be:

- A CO₂e unit price risk management service;
- A futures price discovery mechanism based on supply and demand that will (1) encourage companies to reduce their GHG emissions below the prescribed target, given the possibility of financing their reduction efforts through the sale of units, (2) stimulate investments in green technologies and promote renewable energies and (3) offer companies the possibility of adapting their GHG emissions reduction commitments to their economic reality.
- The development of liquidity for an emerging market by contributing to the creation of a critical mass of buyers and sellers;
- The security of transactions through a regulatory framework and the financial integrity ensured by a clearing corporation (Canadian Derivatives Clearing Corporation (CDCC)).

Potential stakeholders

All potential stakeholders will be able to trade CO₂e futures contracts by sending their orders to approved participants of the Bourse, using the current trading infrastructure, or by becoming approved participants of the Bourse themselves, according to the current membership conditions. The clearing of CO₂e futures contracts will be carried out by clearing members of CDCC according to the existing procedures.

Potential stakeholders on the carbon futures market are:

- The major regulated industrial emitters: Mainly for price risk management in order to be able to comply with the mandatory emission limits at minimum cost;
- Financial institutions and institutional investors: Investors see these instruments as a new asset class. They can also be used for hedging transactions in portfolios exposed to carbon price risk. A recent study carried out by the CIBC (*Weighing Carbon Costs in Canada*)⁹ estimated that, in terms of stock market capitalization, 40% of the companies listed on the TSX are exposed to this risk;
- Hedge funds: Hedge fund managers are attracted by the prospect of achieving high returns by purchasing speculative positions in a new, relatively inefficient and volatile market where a large part of the risk depends on future regulatory frameworks;
- Insurance companies: In order to hedge insurance products related to carbon price risk.

⁹ CIBC World Markets, *Weighing Carbon Costs in Canada* http://research.cibcwm.com/economic_public/download/occrept61.pdf p.8

IV. Proposed products

Two CO₂e futures contracts are proposed by the Bourse:

- A. Futures contract with physical settlement;**
- B. Futures contract with cash settlement.**

These two types of futures contracts have certain common specifications:

- Underlying common to both contracts: a Canadian carbon dioxide equivalent (CO₂e) unit, as defined by a governmental or legislative authority in Canada. Each unit will allow for the emission of one metric tonne of carbon dioxide equivalent (CO₂e). Canadian CO₂e units will include regulated emitters' credits and offset credits.
- The Bourse considers the new CO₂e futures contract a commodity futures contract. In fact, in Ontario, the carbon dioxide equivalent (CO₂e) unit is considered a commodity and not a security by the Ontario Securities Commission (the OSC). We refer to Rule 14-502 of the OSC (*Commodity Futures Act*) *Designation of Additional Commodities*¹⁰, dated May 13, 2005, which added the following product to the list of commodities described in section 1 of the *Commodity Futures Act*:

"A product based on environmental quality, including emissions or emissions units;"

This addition took effect on May 16, 2005.

The *Companion Policy 14-502 CP*¹¹ justifies this addition to the list of commodities by the fact that the over-the-counter emissions credits (units) market has evolved and contracts are becoming more standardized. While none of these contracts is yet available in Ontario, the OSC has decided to add emissions and emissions credits (units) to the list of commodities, in anticipation of their migration into organized markets. Given that, to our knowledge, Ontario is the only jurisdiction in Canada that has defined this type of product, the Bourse considers this definition acceptable.

- The size of each of the two proposed CO₂e futures contracts is 100 units. The difference between the size of the proposed contracts (100t of CO₂e) and that of futures contracts on the EU ETS European market (1000t of CO₂e) can be explained by the very nature of the system proposed in Canada (domestic baseline and credit system), as well as the estimated size of the market relative to expected total reduction targets. In fact, the Bourse feels that a reduced contract size will promote greater liquidity by promoting exchanges, both for regulated emitters wishing to manage their risk and for speculators and arbitrageurs.

A. Futures contract with physical settlement

- **Features:**
 - This contract will allow regulated emitters to physically obtain units for complying with the Canadian regulatory framework. It will be used mainly for credit price risk management;
 - The expiry of the contracts will coincide with the compliance period imposed by the Canadian regulatory framework (that is annually starting in 2010);

¹⁰ OSC Rule 14-502 (Commodity Futures Act) Designation of Additional Commodities and Companion Policy 14-502CP http://www.osc.gov.on.ca/Regulation/Rulemaking/Current/Part1/rule_20050513_14-502_des-add-comms.pdf

¹¹ OSC Rule 14-502 (Commodity Futures Act) Designation of Additional Commodities and Companion Policy 14-502CP http://www.osc.gov.on.ca/Regulation/Rulemaking/Current/Part1/rule_20050513_14-502_des-add-comms.pdf

- A national registry must be set up allowing for the transfer of units from the seller to the buyer via a clearing corporation, namely, the Canadian Derivatives Clearing Corporation (CDCC). Since the compliance period begins in 2010, no delivery will be made before that year. As a result, the technical details regarding the national registry and the delivery procedures do not have to be established immediately, but rather only in the months following the establishment of the regulatory framework and the functional implementation of the national registry;
- Exchange for Physical transactions (EFP), Exchange for Risk transactions (EFR), Substitution of OTC derivative instruments for Futures Contracts transactions (Substitution), block trades, pre-arranged transactions and cross transactions will be permitted.
- An alternative delivery procedure is also provided for a CO₂e futures contract with physical settlement. The terms and conditions for this procedure will be established in CDCC's Rules (new article C-1906 of CDCC's Rules).
- A position limit as well as a minimum position reporting threshold will be set by the Bourse, as it does currently for its other futures contracts.
- Unit shortage: CDCC will establish the rules in case of a shortage of Canadian CO₂e units at the time of delivery (addition of new article C-1905 to CDCC's Rules).
- Force majeure: In the specific case where the federal regulatory project related to the trading system is abandoned, the alternative to physical delivery of units will be a special cash settlement based on a final settlement price determined by the Bourse and will be binding for the parties involved. This final settlement price could be obtained, for example, through a survey of a list of key industrial emitters representing a significant sampling of the originally regulated sectors' valuation of the underlying price. Moreover, in order to guarantee a minimum environmental quality standard linked to the underlying, the Bourse could specify that this underlying must be minimally compliant with a standard established by a recognized standardization organization. Today, this standard could be, for example, the ISO 14064 standard¹² or the standard established by the Voluntary Carbon Standard (VCS) Steering Committee (SC)¹³.

B. Futures contracts with cash settlement

■ Features

- A futures contract adapted to the needs of financial stakeholders interested in participating in the carbon market without physical delivery of the underlying;
- The expiry of these contracts will be coordinated (daily, monthly, quarterly and annually), giving financial stakeholders a certain flexibility in their investment strategies;
- Upon expiry, all open positions will be settled in cash. The final settlement price will be based on a method reflecting the market price of the CO₂e cash instrument. This price will be obtained using an index or a survey of major industrial emitters.
- Exchange for Physical transactions (EFP), Exchange for Risk transactions (EFR), Substitution of OTC derivative instruments for Futures Contracts transactions (Substitution), block trades, pre-arranged transactions and cross transactions will be permitted.
- In case of force majeure, the same procedure applies for this contract as for the CO₂e futures contract with physical settlement.

¹² ISO 14064 standard: <http://www.csa.ca/products/environment/Default.asp?articleID=8686&language=english>

¹³ VCS standard <http://www.ieta.org/ieta/www/pages/download.php?docID=2501>

V. Summary of the proposed amendments to CDCC's Rules

The current Rules of CDCC do not allow clearing of CO₂e futures contracts. Consequently, it is proposed to add two new Rules in Part C of CDCC Rules for futures contracts, Rule C-19, Futures contract on Carbon Dioxide Equivalent (CO₂e) Units with Physical Settlement, and Rule C-20, Futures contract on Carbon Dioxide Equivalent (CO₂e) Units with Cash Settlement, in order to permit the clearing by CDCC of CO₂e futures contracts with physical and cash settlement. In addition, it is proposed to amend Section A-1A01, Eligibility for Membership, in Rule A-1A, Membership in the Corporation, by adding a new paragraph (e) specifying that in the case of physically settled CO₂e futures contracts, the clearing member which intends to clear these futures contracts must at all times ensure that it and/or its client is and remains in good standing with the registry (as this term is defined in proposed new Section C-1901 of the Rules) that the Canadian government is expected to implement for the accounting of CO₂e units. This new requirement would only apply to physically settled CO₂e futures contracts. This requirement is similar to the one currently existing at the Chicago Climate Futures Exchange which requires, for what regards its listed carbon financial instrument futures contract, that participants on its market (including clearing members) be a member of the Chicago Climate Exchange and have an established CCX Registry Account.

It is also to be noted that a correction was made to the last paragraph of the French language version of Section A-1A01 of Rule A-1A by adding a reference to Subsection (d) in the first sentence of this paragraph. This reference had been omitted in February 2006 when Section A-1A01 was amended to include over-the-counter derivative instruments transactions. The English language version does not require a similar correction since reference to Subsection (d) was included when the above-mentioned amendments were implemented. With this correction, versions in both languages will be identical.

Since CO₂e futures contracts with physical settlement are similar to the existing 10-year Government of Canada bond futures contracts for what regards delivery features (type of product, terms of payment and delivery, default policy etc.), Rule C-19, Futures Contract on Carbon Dioxide Equivalent (CO₂e) Units with Physical Settlement, was drafted with a structure and content similar to those of Rule C-13, 10-year Canada Bond Futures.

Section C-1901, Definitions, defines some new terms that will be applicable specifically to Rule C-19 such as "Carbon Dioxide Equivalent (CO₂e)", "Carbon Dioxide Equivalent Unit" and "Registry". For terms that are used by both CDCC and the Bourse, definitions in Section C-1901 are identical to those that are given in proposed new articles 15931 and 15951 of the Rules of the Bourse.

Section C-1902, Delivery Standards, provides that the Bourse has the right to exclude from the deliverable of CO₂e futures contracts any underlying interest that it deems inappropriate (see proposed new article 15942 of the Rules of the Bourse). Since CDCC is responsible for ensuring final settlement and thus the terms of delivery, this requirement is necessary in CDCC's Rules. It is important to mention that this right to exclude an underlying asset also exists for other futures contracts with physical settlement such as, for example, the 10-year Canada Bond Futures Contract (CGB).

Section C-1903, Submission of Tender Notices, specifies the obligation of clearing members to inform CDCC of their intention to deliver if they hold a short position or, if they hold a long position, to confirm to CDCC that delivery has been completed. As a reference, a similar obligation exists in Rule C-13, 10 year Canada Bond Futures (CGB), and Rule C-16, 2-year Canada Bond Futures (CGZ). Delivery standards and submission of tender notices for CO₂e futures contracts with physical settlement are the same as for all other futures contracts with physical settlement listed on the Bourse.

Section C-1904, Delivery Through the Clearing Corporation, provides for terms of delivery for CO₂e futures contracts which are similar to those of other physically settled futures contracts. However, an additional provision has been added to this section that requires from clearing members intending to make or take delivery of CO₂e units that they ensure that at all times they and/or their clients are and remain in good standing with the registry (as this term is defined in Section C-1901). As already mentioned, this requirement is also stated in Section A-1A01, Eligibility for Membership, of Rule A-1A of CDCC (Membership in the Corporation).

Section C-1905, *Shortage of Deliverable Carbon Dioxide Equivalent Units*, contains several important provisions. Since the futures contracts market for CO₂e units will be launched before the corresponding cash market, and in order to mitigate the effect of a potential shortage of deliverable CO₂e units, this section specifies that in the eventuality of a shortage of deliverable CO₂e units, the CDCC Board of Directors has the capacity to designate as being acceptable for delivery any other type of CO₂e units or to replace the physical settlement by a cash settlement. Additionally, the CDCC Board of Directors could, in its discretion, determine a fair and appropriate final settlement price if the price received from the Bourse is considered incorrect. Since there is currently no active carbon market in Canada and since it is impossible to determine at the present time what will be the size of such market when the first futures contracts with physical settlement will expire, the inclusion of such provisions in CDCC Rules is important because consideration must be given to the possibility of a deliverable shortage upon expiry of the contract. This provision is similar to those that already exist for other physically settled futures contracts listed on the Bourse.

Section C-1906, *Alternative Delivery Procedure*, has been added to Rule C-19 in order to provide some flexibility to clearing members who agree to make and take delivery under terms or conditions which differ from those prescribed in Section C-1904. The purpose of this Section is release CDCC of any responsibility regarding final delivery once an Alternative Delivery Procedure (ADP) agreement has been confirmed by the two clearing members. The clearing members (buyer and seller) must confirm their agreement by filling in and signing an ADP agreement form and then transmitting it to CDCC. Clearing members who enter into an ADP agreement must agree to indemnify CDCC in respect of any costs, charges and expenses incurred by CDCC in connection with such agreement, including any costs, charges and expenses incurred as a result of a failure on the part of the clearing member to meet its obligations under an ADP agreement. The outline of the ADP agreement form is attached to this analysis.

As mentioned above, since the futures contracts market for CO₂e units will be launched before the corresponding cash market, the possibility of encountering a shortage of deliverable CO₂e units needs to be addressed. In addition to the measures described in Section C-1906, an alternative delivery procedure could resolve a situation where there is a shortage of deliverable CO₂e units between two clearing members. Alternative delivery procedures are a common practice for commodities. It can happen that the specific characteristics of a commodity cause difficulties in having delivery completed in time or with the exact grade or quality of deliverable that was initially expected. There must therefore be alternatives available in cases where such situation occurs. Alternative delivery procedures are used by several other clearing houses. For instance, LCH.Clearnet Ltd. and NYMEX have in their respective regulations provisions regarding the use of alternative procedures. The rules concerning alternative delivery are found in section 6.3.4 and 6.1.4 of part 6 ICE Futures Deliveries in LCH.Clearnet's rulebook. In section 6, appendix 6.2L of LCH.Clearnet's rulebook, there is an example of a form used for alternative delivery procedure. Furthermore, in the NYMEX rulebook there are descriptions of alternative delivery procedures for several different futures contracts, for example in section 220.17B which concerns ADP for natural gas futures contract.

Section C-521, *Force Majeure*, of Rule C-5, *Delivery of Underlying Interest of Futures* applies to CO₂e futures contracts as well. Since the implementation of the carbon market is dependent on governmental or legislative actions, Section C-1907, *Force Majeure*, addresses the specific situation where the emission trading system is no longer scheduled to proceed, is not implemented or is to be discontinued by any governmental or legislative authority in Canada. This section has been added in order to reinforce and complete Section C-521.

Rule C-20, *Futures contract on Carbon Dioxide Equivalent (CO₂e) Units with Cash Settlement* is very similar to Rule C-19 with few exceptions. In addition to definitions, cash settlement and force majeure provisions, this Rule contains specific provisions, in Section C-2004, *Unavailability or Inaccuracy of Current Value*, which give CDCC, in the case where a final settlement price is not available, the right and the responsibility to determine a final settlement price for purposes of calculating gains and losses. If CDCC does not receive a final settlement price from the Bourse or determines that the price received is incorrect, the provisions of Section C-2004 give CDCC the right to determine, in its discretion, a fair and appropriate final settlement price in accordance with the best information available. Furthermore, CDCC can suspend the settlement of gains and losses until a final settlement price becomes available and fix a new settlement date.

Section C-2001, *Definitions*, defines some new terms applicable in Rule C-20, for instance "Carbon Dioxide Equivalent (CO₂e)" and "Carbon Dioxide Equivalent Unit". Certain of these definitions can also be found in Section C-1901 of Rule C-19 of CDCC's Rules as well as in the proposed new articles 15931 and 15951 of Rule 15 of the Rules of the Bourse.

Section C-2002, Final Settlement in Cash Through the Corporation, contains the same payment conditions for clearing members as other futures contracts with cash settlement listed on the Bourse. Furthermore, Section C-2006, Force Majeure, includes the same conditions and criteria as those described in Section C-521, Force Majeure. This Section also contains provisions regarding the specific situation where the emission trading system is no longer scheduled to proceed, is not implemented or is to be discontinued by any governmental or legislative authority in Canada. These provisions are identical to those contained in proposed Section C-1907 for CO₂e futures contracts with physical settlement.

Finally, it is important to mention that these modifications to CDCC Rules do not affect CDCC's risk management procedures or methods. Nevertheless, CDCC will use new parameters in its clearing activities for CO₂e futures contracts. The new parameters that CDCC intends to apply in its risk management model are related to the margin fund calculation.

In order to calculate the required margins for the CO₂e futures contracts, CDCC will need to know the volatilities of the CO₂e unit price returns. Since the futures contract market on CO₂e units will be launched before the cash market, the price of the underlying interest (i.e. CO₂e units) will not be available when the market will be launched. For that reason, CDCC will use as a reference¹⁴ the price return volatility of the European (EU-ETS) CO₂e units, which has been available for more than a year. If needed, this volatility will be adjusted going forward.

Yet, it is worth noting that CDCC will use the volatility of the European prices only during the first month following the launch of the CO₂e futures contract. The current methodology of CDCC implies calculating and choosing the maximum standard deviation of price returns for the last 20, 90 or 260 days. In the event that prices do not exist for the full period, CDCC will use the available prices with the condition that at least 20 prices from 20 trading days exist in order to calculate the standard deviation of the last 20 days. For the Canadian CO₂e futures contracts, CDCC will use the European price return volatilities only for the first 20 trading days. From this point onwards, CDCC will use the last 20 days' price volatility of the Canadian CO₂e futures contracts to determine the margin interval for these products. When more than 20 Canadian prices will be available, CDCC will establish the margin intervals according to the same methodology as described above, i.e. the maximum standard deviation for the last 20, 90 or 260 days.

CDCC has the capacity to increase or decrease margin intervals depending on market conditions and previous daily Canadian volume. As is done in Europe, CDCC will also consider and try to anticipate all possible intentions and/or actions of governmental authorities that are relevant when adjusting margin intervals for this type of product. CDCC has several ways to adjust the level of margin intervals. One of these ways is to change the number of liquidation days in order to obtain an adequate margin interval for the clearing activities as well as ensuring a high level of protection.

The addition of these new products will not imply any modification to the clearing systems or to the margin calculation of CDCC. The CDCC Operations Department will, as it is currently the case for other futures contracts traded on the Bourse, regularly receive the CO₂e futures contracts prices from the Bourse by electronic means through CDCC's clearing system. For what regards the CDCC margin calculation system, there will be no modifications neither of the entry variables nor of the way the margins are calculated.

CDCC will not make a difference between the two types of CO₂e futures contracts (i.e. with physical or cash settlement) when determining the required margins. The method used to establish the margin interval level for CO₂e futures contracts will be the same as the one currently used by CDCC for other derivative instruments listed on the Bourse.

¹⁴ When using its actual margin intervals calculation methodology, CDCC has already calculated the price return volatility of Phase 2 European units for all existing contracts, being European contracts which will expire in 2008, 2009, 2010, 2011 and 2012. This calculation has given reasonable margin intervals levels.

VI. Objective and Public Interest

CDCC objective in listing CO₂e futures contracts is to create an organized and regulated carbon market with an effective exchange and price discovery mechanism based on transparency, security and liquidity, as well as to provide a risk management service.

VII. Process

The proposed amendments to CDCC Rules are presented to CDCC's Board of Directors for approval. Then, they will be submitted to the Autorité des marchés financiers (AMF) for approval and published for a 30-day comment period.

VIII. Documents attached

- New Rules C-19 and C-20 of CDCC's Rules;
- Amendments to Section A-1A01 of Rule A-1A of CDCC's Rules; and
- Alternative Delivery Procedure Agreement Form.

IX. References

- Contract specifications for Carbon Financial Instruments Futures at the Chicago Climate Futures Exchange:
http://www.ccfex.com/membership_ccfe/advisories/2007/2007-15.pdf.
- LCH.Clearnet Ltd. rules concerning ICE Futures Deliveries, section 6:
http://www.lchclearnet.com/images/section6_tcm6-26651.pdf.
- NYMEX rules concerning alternative delivery procedure for natural gas futures contracts:
http://www.nymex.com/rule_main.aspx?pg=33#220.17B.

RULE A-1A MEMBERSHIP IN THE CORPORATION

Section A-1A01 – Eligibility for Membership

- (a) In order to apply for membership, an applicant must be:
 - i) a member or approved participant in good standing with an exchange recognized in a Canadian province; or
 - ii) a bank or an authorized foreign bank to which the *Bank Act* (Canada), as amended from time to time, applies.
- (b) A Clearing member that intends to clear Stock Options or Share Futures through the facilities of the Corporation, must be a full member participant in good standing with The Canadian Depository for Securities Limited.
- (c) A Clearing Member that intends to clear bond Options and/or bond Futures through the facilities of the Corporation, must be a full member participant in good standing with The Canadian Depository for Securities Limited.
- (d) A Clearing Member that intends to clear physically settled OTC DI transactions, must ensure that it and/or its client is in good standing and remains as such at all times with the appropriate Market Centres and/or Delivery Agents. Furthermore, and where appropriate, the Clearing Member and/or its client need to ensure access to a transportation system for the physical transport of the Underlying Interest to the appropriate Market Centres and/or Delivery Agents.
- (e) A Clearing Member that intends to clear physically settled Futures on Carbon Dioxide Equivalent (CO₂e) Units must ensure that at all times it and/or its client is and remains in good standing with the Registry as this term is defined in Section C-1901 of the Rules.

The Corporation may in its sole discretion waive the requirements set forth in clauses (b), (c), ~~or (d)~~, or (e) if the Clearing Member enters into an agency agreement with another Clearing Member, which agency agreement shall be in form and substance satisfactory to the Corporation, pursuant to which such other Clearing Member agrees to act as the first Clearing Member's agent for the purpose of fulfilling such Clearing Member's obligations to the Corporation under the Corporation's Rules and the Application for Membership.

Amended 04/03, 02/06, 00/00

RULE C-19 Futures contract on Carbon Dioxide Equivalent (CO₂e) Units with Physical Settlement (SYMBOL – XXX)

This Rule C-19 is applicable only to Futures Contracts with Physical Settlement where the deliverable Underlying Interest is a specified number of Carbon Dioxide Equivalent Units as defined in Section C-1901, herein referred to as “Carbon Dioxide Equivalent Futures Contracts with Physical Settlement”.

Section C-1901 Definitions

Notwithstanding Section A-102 for the purposes of Carbon Dioxide Equivalent Futures Contracts with Physical Settlement, the following terms are as defined:

“Carbon Dioxide Equivalent (CO₂e)” means a unit of measure used to allow the addition of or the comparison between gases that have different global warming potentials.

“Carbon Dioxide Equivalent Unit” means any right, benefit, title or interest recognized by a governmental or legislative authority in Canada, associated partly or in its entirety to a reduction of the emissions of GHG expressed in carbon dioxide equivalent.

“Exchange” means Bourse de Montréal Inc.

“Final Settlement Price” means the price of the Underlying Interest as determined by the product specifications of Bourse de Montréal Inc.

“Registry” means any designated registry established in order to ensure the accurate accounting of holding, transfer, acquisition, surrender, cancellation, and replacement of the Carbon Dioxide Equivalent Units.

“Underlying Interest” means the asset which underlies and determines the value of a futures contract. In the case of Carbon Dioxide Equivalent Futures Contracts with Physical Settlement, the Underlying Interest is 100 Carbon Dioxide Equivalent Units.

Section C-1902 Delivery Standards

For Carbon Dioxide Equivalent Futures Contracts with Physical Settlement, the only Carbon Dioxide Equivalent Units acceptable for delivery shall be those specified by the Exchange from time to time.

Before a Carbon Dioxide Equivalent Futures Contract with Physical Settlement is listed for trading, the Exchange shall have the right to exclude from the deliverable of such futures contract any Carbon Dioxide Equivalent Unit it deems appropriate to exclude, even if such unit meets all the standards specified by the Exchange.

Section C-1903 Submission of Tender Notices

A Clearing Member who holds a Short Position in the currently deliverable futures contract and who wishes to make delivery must submit a Tender Notice to the Corporation on the last trading Day of the Delivery Month.

A Clearing Member who, at the time that trading has ceased, holds a Short Position of the currently deliverable futures contract shall submit a Tender Notice to the Corporation no later than the time established by the Corporation on such last day of trading.

The Clearing Member to whom a delivery has been assigned must confirm to the Corporation that delivery has been completed.

This Section C-1903 supplements Section C-503.

Section C-1904 Delivery Through the Clearing Corporation

- (1) Day of Delivery - Delivery of Carbon Dioxide Equivalent Units as required by this Rule shall be made by the Clearing Member on the third Business Day following submission of a Tender Notice, or on a day as otherwise determined by the Corporation.
- (2) Time of Delivery - Each Clearing Member who is to make or take delivery of Carbon Dioxide Equivalent Units shall do so against or by payment of certified funds by no later than 2:45 p.m. on the Day of Delivery.
- (3) Membership at Registry - A Clearing Member that intends to clear physically settled Carbon Dioxide Equivalent Futures Contracts with Physical Settlement through the facilities of the Corporation, must ensure that at all times it and/or its client is and remains in good standing with the Registry.
- (4) If delivery of the Underlying Interest by the delivering Clearing Member, or payment thereof by the assigned Clearing Member, is not effected by the time provided in Section C-1904(2), such Non-Conforming Clearing Member must inform the Corporation of such failure of the Non-Conforming Member no later than 3:00 p.m. on the Day of Delivery. The Non-Conforming Clearing Member shall notify the Corporation of the default of the Non-Conforming Member by telephone, together with written notification, sent by facsimile transmission, to be provided as soon as possible.

Section C-1905 Shortage of Deliverable Carbon Dioxide Equivalent Units

In the eventuality where the Board of Directors of the Corporation decides that a shortage of deliverable Carbon Dioxide Equivalent Units exists or might exist, it shall take all necessary action to correct, prevent or alleviate the situation. The Board of Directors of the Corporation could, for instance:

- i) Designate as being acceptable for delivery any other type of Carbon Dioxide Equivalent Units that had not been previously identified as being acceptable for delivery;
- ii) Instead of the normal delivery procedures, decide on cash settlement in accordance with the following procedure:

On the last day of trading, open positions in Carbon Dioxide Equivalent Futures Contracts with Physical Settlement will be marked to market based on the daily settlement price. A Final Settlement Price will be determined on the final settlement date.

The Final Settlement Price as reported by the Exchange shall be conclusively deemed to be accurate except that where the Corporation determines in its discretion that there is a material inaccuracy in the reported Final Settlement Price, it may take such action as it determines in its discretion to be fair and appropriate in the circumstances. Without limiting the generality of the foregoing, the Corporation may require an amended Final Settlement Price to be used for settlement purposes.

In the event that the Registry referred to in Section C-1901 is not in place at the expiration of a Carbon Dioxide Equivalent Futures Contract with Physical Settlement whose specifications provide, upon contract expiry, for the delivery of the units underlying such futures contract, the contract shall be settled in cash in the manner described in subparagraph ii) above.

Section C-1906 Alternative Delivery Procedure

Where the delivering Clearing Member and the assigned Clearing Member agree to make and take delivery under terms or conditions which differ from the terms and conditions prescribed in Section C-1904, the relevant Clearing Members may enter into an Alternative Delivery Procedure (“ADP”) agreement with the Corporation in the form prescribed by the Corporation.

Clearing Members who enter into an Alternative Delivery Procedure agreement agree to indemnify the Corporation in respect of any costs, charges and expenses incurred by the Corporation in connection with such agreement, including without limitation any costs, charges and expenses incurred as a result of a failure on the part of the Clearing Member to meet its obligations under an Alternative Delivery Procedure agreement. The purpose of the Alternative Delivery Procedure agreement is to afford flexibility to Clearing Members where delivery is likely, but not within the time prescribed in Subsection (2) of Section C-1904.

Clearing Members should note, however, that notwithstanding a subsequent delivery in accordance with an Alternative Delivery Procedure agreement, failure to deliver under the Exchange Regulations may carry the imposition of a penalty, as determined from time to time by the Exchange.

Section C-1907 Force Majeure

Notwithstanding the provisions of Section C-521, *Force Majeure*, in the specific situation where the emission trading system related to the Carbon Dioxide Equivalent Unit is no longer scheduled to proceed, is not implemented by any governmental or legislative authority in Canada or is to be discontinued by any governmental or legislative authority in Canada, the Board of Directors of the Corporation shall decide on the cash settlement of the contract at a price that reflects a minimum quality standard established by standards organizations to be determined from time to time by the Exchange.

**RULE C-20 Futures contract on Carbon Dioxide Equivalent (CO₂e) Units with Cash Settlement
(SYMBOL – XXX)**

This Rule C-20 is applicable only to Futures Contracts with Cash Settlement where the Underlying Interest is a specified number of Carbon Dioxide Equivalent Units as defined in Section C-2001, herein referred to as “Carbon Dioxide Equivalent Futures Contracts with Cash Settlement”.

Section C-2001 Definitions

Notwithstanding Section A-102 for the purposes of Carbon Dioxide Equivalent Futures Contracts with Cash Settlement, the following terms are as defined:

“Carbon Dioxide Equivalent (CO₂e)” means a unit of measure used to allow the addition of or the comparison between gases that have different global warming potentials.

“Carbon Dioxide Equivalent Unit” means any right, benefit, title or interest recognized by a governmental or legislative authority in Canada, associated partly or in its entirety to a reduction of the emissions of GHG expressed in carbon dioxide equivalent.

“Exchange” means Bourse de Montréal Inc.

“Final Settlement Price” means the price of the Underlying Interest as determined by the product specifications of Bourse de Montréal Inc.

“Multiplier” means the value of the tick used to calculate the size of the contract as specified by the Exchange on which the Carbon Dioxide Equivalent Futures Contract with Cash Settlement trade.

“Underlying Interest” means the asset which underlies and determines the value of a futures contract. In the case of Carbon Dioxide Equivalent Futures Contracts with Cash Settlement, the Underlying Interest is 100 Carbon Dioxide Equivalent Units

Section C-2002 Final Settlement in Cash Through the Corporation

Unless otherwise specified by the Corporation, settlement of positions held following the close of trading on the last day of trading in a Carbon Dioxide Equivalent Futures Contract with Cash Settlement shall be made on the first Business Day following the last day of trading. Settlement shall be made by an exchange of cash between the Corporation and each of the short and long Clearing Members. The amount to be paid or received in final settlement of:

- (a) each position opened prior to the last trading day is the difference between
 - (i) the Final Settlement Price, and
 - (ii) the Settlement price of the contract on the business day before the last trading day,
- multiplied by the appropriate Multiplier; and

- (b) each position opened on the last trading day is the difference between
 - (i) the Final Settlement Price, and
 - (ii) the Trade price of the open contract
- multiplied by the appropriate Multiplier.

Section C-2003 Tender Notices

As there is no provision for physical delivery of cash settlement Futures, Rule C-5 shall not apply to Carbon Dioxide Equivalent Futures Contracts with Cash Settlement.

Section C-2004 Unavailability or Inaccuracy of Current Value

- (1) If the Corporation shall determine that the Final Settlement Price for a Carbon Dioxide Equivalent Futures Contract with Cash Settlement is unreported or otherwise unavailable for purposes of calculating the Gains and Losses, then, in addition to any other actions that the Corporation may be entitled to take under its By-laws and Rules, the Corporation may do any or all of the following:
 - (a) Suspend the Settlement of Gains and Losses. At such times as the Corporation determines that the required Final Settlement Price is available, the Corporation shall fix a new date for Settlement of the Gains and Losses.
 - (b) Fix the Final Settlement Price in accordance with the best information available as to the correct Final Settlement Price.
- (2) The Final Settlement Price as reported by the Exchange shall be conclusively deemed to be accurate except that where the Corporation determines in its discretion that there is a material inaccuracy in the reported Final Settlement Price, it may take such action as it determines in its discretion to be fair and appropriate in the circumstances. Without limiting the generality of the foregoing, the Corporation may require an amended Final Settlement Price to be used for settlement purposes.

Section C-2005 Payment and Receipt of Payment of the Trade Price

The settlement value of maturing contracts will be included with other settlements on the daily Futures Consolidated Activity Report.

Section C-2006 Force Majeure

If settlement or acceptance or any precondition or requirement is prevented by “Force Majeure” such as but not limited to strike, fire, accident, act of government, act of God or other emergency the affected Clearing Member shall immediately notify the Exchange and the Corporation. The Exchange and the Corporation shall take such action as they deem necessary under the circumstances and their decision shall be binding upon all parties to the contract. Without limiting the generality of the foregoing, they may modify the Settlement Time and/or the settlement date; designate alternate or new settlement points or alternate or new procedures in the event of conditions interfering with the normal operations of approved facilities or settlement process; and/or fix a Settlement Price.

In the specific situation where the emission trading system related to the Carbon Dioxide Equivalent Units is no longer scheduled to proceed, is not implemented by any governmental or

legislative authority in Canada or is to be discontinued by any governmental or legislative authority in Canada, the Board of Directors of the Corporation shall decide on the cash settlement of the contract at a price that reflects a minimum quality standard established by standards organizations to be determined from time to time by the Exchange.



Confirmation of Agreement Alternative Delivery Procedure (ADP)

To:	CDCC - Operations cdccops@cdcc.ca	
Cc: <i>counterparty</i>		Member No:
From:		Member No:

We confirm that an Alternative Delivery Procedure has been agreed on the contract sizes shown below at the prices stated, in accordance with Section C-1906 of Rule C-19 of CDCC's Rules:

Bought/Sold	Counterparty	Contract Month	Contract Size	Price	Account	Delivery Range*

*If applicable

CLEARING MEMBER AUTHORIZED STAMP

Contact	Name	
<i>(sender of form)</i>	Phone Number	

Date

Please note: This form must be completed, the CDCC Stamp is to be applied and initial, then **scanned** and e-mailed to the interested parties. The sender is to contact CDCC Operations to inform them that the e-mail has been sent.