Sean M. Downey
Director and Assistant General Counsel
Legal Department

January 10, 2013

VIA E-MAIL

Ms. Sauntia Warfield
Office of the Secretariat
Commodity Futures Trading Commission
Three Lafayette Centre
1155 21st Street, N.W.
Washington, D.C. 20581

Re: Rule 40.2(a) Certification. Notification Regarding the Listing of Emission Option Contracts for Trading on CME Globex and for Clearing through CME ClearPort NYMEX Submission #13-002

Dear Mr. Stawick:

The New York Mercantile Exchange, Inc. ("NYMEX" or the "Exchange") is notifying the Commodity Futures Trading Commission ("CFTC" or "Commission") that it is self-certifying the listing of three (3) new emission option contracts for trading on CME Globex and for submission for clearing through CME ClearPort beginning at 6:00 p.m. on Sunday, January 13, 2013, for trade date Monday, January 14, 2013.

The contract specifications are as follows:

Contract Name	Code	Rule Chapter	Listing Schedule	First Listed Month
Certified Emission Reduction Plus (CERplus) Option	PCL	1265	First three consecutive contracts months plus eight quarterly contracts on a rolling basis, starting with the nearest quarter; December contract month of subsequent years through 2020.	January-13
Certified Emission Reduction Plus (CERplus) Serial Option	CPE	1266	First three consecutive contracts months plus eight quarterly contracts on a rolling basis, starting with the nearest quarter; December contract month of subsequent years through 2020.	January-13
Emission Reduction Unit (ERU) Serial Option	RUE	1267	First three consecutive contracts months plus eight quarterly contracts on a rolling basis through March 2015.	January-13

Contract Size:

- **CERplus Option and Serial Option:** The unit of trading shall be 1,000 CER credits.
- **ERU Serial Option:** The unit of trading shall be 1,000 ERU credits.

Minimum Price Fluctuation:

- **CERplus Option and Serial Option:** The minimum price fluctuation shall be one Euro cent (€0.01) per CER credit (€10.00 per contract). Prices shall be quoted in Euros and Euro cents per CER credit.
- **ERU Serial Option:** The minimum fluctuation shall be one Euro cent (€0.01) per ERU credit (€10.00 per contract). Prices shall be quoted in Euros and Euro cents per ERU credit.

Last Trading Day:

- **CERplus Option:** The contract shall expire at the close of trading three business days prior to the expiration of the underlying Certified Emission Reduction Plus (CERplus) Futures contract.
- **CERplus Serial Option:** The contract shall expire at the close of trading three business days prior to the expiration of the closest contract month of the underlying Certified Emission Reduction Plus (CERplus) Futures contract.
- **ERU Serial Option:** The contract shall expire at the close of trading three business days prior to the expiration of the closest contract month of the underlying Emission Reduction Unit (ERU) Futures contract.

CME Globex and CME ClearPort Trading Hours: Sunday – Friday 6:00 p.m. – 5:15 p.m. (5:00 p.m. – 4:15 p.m. Chicago Time) with a 45-minute break each day beginning at 5:15 p.m. (4:15 p.m. CT).

Fee Schedule:

Certified Emission Reduction (CERplus) Option

Exchange Fees					
	Member Day	**Member**	**Cross Division**	**Non-Member**	**IIP**
Pit	n/a	n/a	n/a	n/a	
Globex	n/a	$3.00	n/a	$3.00	n/a
ClearPort		$3.00		$3.00	

Processing Fees			
	Member	**Non-Member**	
Cash Settlement			**only applies to financially settled contracts*
Futures from E/A	n/a	n/a	**applies to futures contracts*
	House Acct	**Cust Acct**	
Options E/A Notice	$0.85	$0.85	**applies to physical options*
Delivery Notice	$1.00	$1.00	**applies to physical futures*

Additional Fees and Surcharges		
EFS Surcharge	$0.00	**$2.50 fee typically only charged on our core physical contracts*
Block Surcharge	$0.00	**$0.10 fee charged on block trades*
Facilitation Desk Fee	$0.20	**fee applies to CPC trades entered by ClearPort Market Ops*

Certified Emission Reduction (CERplus) Serial Option

Exchange Fees					
	Member Day	**Member**	**Cross Division**	**Non-Member**	**IIP**
Pit	n/a	n/a	n/a	n/a	
Globex	n/a	$3.00	n/a	$3.00	n/a
ClearPort		$3.00		$3.00	

Processing Fees			
	Member	**Non-Member**	
Cash Settlement			**only applies to financially settled contracts*
Futures from E/A	n/a	n/a	**applies to futures contracts*
	House Acct	**Cust Acct**	
Options E/A Notice	$0.85	$0.85	**applies to physical options*

Delivery Notice	$1.00	$1.00	**applies to physical futures*
Additional Fees and Surcharges			
EFS Surcharge	$0.00		**$2.50 fee typically only charged on our core physical contracts*
Block Surcharge	$0.00		**$0.10 fee charged on block trades*
Facilitation Desk Fee	$0.20		**fee applies to CPC trades entered by ClearPort Market Ops*

Emission Reduction Unit (ERU) Serial Option

Exchange Fees					
	Member Day	**Member**	**Cross Division**	**Non-Member**	**IIP**
Pit	n/a	n/a	n/a	n/a	
Globex	n/a	$3.00	n/a	$3.00	n/a
ClearPort		$3.00		$3.00	

Processing Fees			
	Member	**Non-Member**	
Cash Settlement			**only applies to financially settled contracts*
Futures from E/A	n/a	n/a	**applies to futures contracts*
	House Acct	**Cust Acct**	
Options E/A Notice	$0.85	$0.85	**applies to physical options*
Delivery Notice	$1.00	$1.00	**applies to physical futures*
Additional Fees and Surcharges			
EFS Surcharge	$0.00		**$2.50 fee typically only charged on our core physical contracts*
Block Surcharge	$0.00		**$0.10 fee charged on block trades*
Facilitation Desk Fee	$0.20		**fee applies to CPC trades entered by ClearPort Market Ops*

The Exchange is also notifying the CFTC that it is self-certifying the insertion of the terms and conditions for the contracts into the Position Limit, Position Accountability and Reportable Level Table and Header Notes located in the Interpretations and Special Notices Section of Chapter 5 of the NYMEX Rulebook in relation to the listing of the new contracts. The terms and conditions establish the all month/any one month accountability levels, expiration month position limit, reportable level and aggregation allocation for the new contracts. In addition, the Exchange is self-certifying the insertion of the non-reviewable ranges ("NRR") for the option contracts into Rule 588.H.

Exchange business staff responsible for the new products and the Exchange legal department collectively reviewed the designated contract market core principles ("Core Principles") as set forth in the Commodity Exchange Act (the "Act" or "CEA"). During the review, Exchange staff identified that the new products may have some bearing on the following Core Principles:

- Prevention of Market Disruption: Trading in these contracts will be subject to the NYMEX rules ("Rulebook") Chapters 4 and 7, which include prohibitions on manipulation, price distortion and disruptions of the delivery or cash-settlement process. As with all products listed for trading on one of CME Group's designated contract markets, activity in the new products will be subject to extensive monitoring and surveillance by CME Group's Market Regulation Department.
- Contracts not Readily Subject to Manipulation: The new products are not readily subject to manipulation due to the deep liquidity and robustness in the underlying physical markets.
- Compliance with Rules: Trading in these contracts will be subject to the rules in Rulebook Chapter 4, which includes prohibitions against fraudulent, noncompetitive, unfair and abusive practices. Additionally, trading in these contracts will be subject to the full panoply of trade practice rules, the majority of which are contained in Chapter 5 and Chapter 8 of the Rulebook. As with all products listed for trading on one of CME Group's designated contract markets, activity in the new products will

be subject to extensive monitoring and surveillance by CME Group's Market Regulation Department. The Market Regulation Department has the authority to exercise its investigatory and enforcement power where potential rule violations are identified.

- Position Limitations or Accountability: The spot-month speculative position limits for the contracts are set at less than the threshold of 25% of the deliverable supply in the respective underlying market.
- Availability of General Information: The Exchange will publish information on the contracts' specifications on its website, together with daily trading volume, open interest, and price information.
- Daily Publication of Trading Information: Trading volume, open interest, and price information will be published daily on the Exchange's website and via quote vendors.
- Financial Integrity of Contracts: All contracts traded on the Exchange will be cleared by the Clearing House of the Chicago Mercantile Exchange, Inc., which is a registered derivatives clearing organization with the Commission and is subject to all Commission regulations related thereto.
- Execution of Transactions: The new contracts are listed for trading on CME Globex and for clearing through the CME ClearPort platform. The CME Globex platform provides a transparent, open, and efficient mechanism to electronically execute trades on screen. The CME ClearPort platform provides a competitive and open execution of transactions by brokers
- Trade Information: All required trade information is included in the audit trail and is sufficient for the Market Regulation Department to monitor for market abuse.
- Protection of Market Participants: Rulebook Chapters 4 and 5 contain multiple prohibitions precluding intermediaries from disadvantaging their customers. These rules apply to trading on all of the Exchange's competitive trading venues and will be applicable to transactions in these products.
- Disciplinary Procedures: Chapter 4 of the Rulebook contains provisions that allow the Exchange to discipline, suspend or expel members or market participants that violate the Rulebook. Trading in these contracts will be subject to Chapter 4, and the Market Regulation Department has the authority to exercise its enforcement power in the event rule violations in these products are identified.
- Dispute Resolution: Disputes with respect to trading in these contracts will be subject to the arbitration provisions set forth in Chapter 6 of the Rulebook. Chapter 6 allows all nonmembers to submit a claim for financial losses resulting from transactions on the Exchange to arbitration. A member named as a respondent in a claim submitted by a nonmember is required to participate in the arbitration pursuant to Chapter 6. Additionally, the Exchange requires that members resolve all disputes concerning transactions on the Exchange via arbitration.

Pursuant to Section 5c(c) of the Act and CFTC Regulation 40.2, the Exchange hereby certifies that the attached contracts comply with the Act, including regulations under the Act. There were no substantive opposing views to this proposal. A description of the underlying cash markets for these new products is attached.

The Exchange certifies that this submission has been concurrently posted on the Exchange's website at http://www.cmegroup.com/market-regulation/rule-filings.html.

Should you have any questions concerning the above, please contact the undersigned at (312) 930-8167 or Sean.Downey@cmegroup.com.

Sincerely,

/s/Sean M. Downey
Director and Assistant General Counsel

Attachments: Appendix A: Rule Chapters
Appendix B: Chapter 5 Table
Appendix C: Rule 588.H. No Bust Ranges
Appendix D: Cash Market Overview and Analysis of Deliverable Supply

Chapter 1265
Certified Emission Reduction Plus (CERplus) Option

1265100. SCOPE OF CHAPTER

This chapter is limited in the application to put and call options on the Certified Emission Reduction Plus (CERplus) futures contract. In addition to the rules of this chapter, transactions in options on the Certified Emission Reduction Plus (CERplus) futures contract shall be subject to the general rules of the Exchange insofar as applicable.

1265101. OPTION CHARACTERISTICS

The number of months open for trading at a given time shall be determined by the Exchange.

1265101.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

1265101.B. Trading Unit

A Certified Emission Reduction Plus (CERplus) call option traded on the Exchange represents an option to assume a long position in the underlying Certified Emission Reduction Plus (CERplus) futures contract at the strike price. A Certified Emission Reduction Plus (CERplus) put option traded on the Exchange represents an option to a short position in the underlying Certified Emission Reduction Plus (CERplus) futures contract at the strike price.

1265101.C. Price Increments

Prices shall be quoted in Euros (€) and Euro cents (¢) per CER credit. The minimum price fluctuation is €0.01 per CER credit. A cabinet trade may occur at a price of €1.00 per contract, however, if it results in the liquidation of positions for both parties to the trade.

1265101.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits

1265101.E. Termination of Trading

The option contract shall expire at the close of trading three business days prior to the expiration of the underlying Certified Emission Reduction Plus (CERplus) futures contract.

1265101.F. Type Option

The option is European style, which is exercised at expiration only. At expiry, automatic exercise occurs for those options that are one or more ticks in the money. Options that are at the money at expiration lapse.

1265102. EXERCISE PRICES

Trading shall be conducted for option contracts with strike prices in increments as set forth below.

1. On the first business day of trading in an option contract month, trading shall be at the following strike prices: (i) the previous day's settlement price for the Certified Emission Reduction Plus (CERplus) futures contract in the corresponding delivery month rounded off to the nearest fifty-cent increment strike price; (ii) the ten fifty-cent increment strike prices which are ten increments higher than the strike price described in subsection (i) of this rule; and (iii) the ten fifty-cent increment strike prices which are ten increments lower than the strike price described in subsection (i) of this rule.
2. Thereafter, on any business day prior to the expiration of the option contract, new consecutive strike prices for both puts and calls will be added such that there will be ten increments above and below the at-the-money option.
3. Notwithstanding the provisions of subsections (1) and (2) of this rule, if the Exchange determines that trading in the option contract will be facilitated thereby, the Exchange may change the increments between strike prices, the number of strike prices which shall be traded on the first day in any new option contract month, the number of new strike prices which will be introduced on each business day or the period preceding the expiration of an option contract in which no new strike prices may be introduced.

Chapter 1266
Certified Emission Reduction Plus (CERplus) Serial Option

1266100. SCOPE OF CHAPTER

This chapter is limited in the application to serial put and serial call options on the Certified Emission Reduction Plus (CERplus) futures contract. In addition to the rules of this chapter, transactions in serial options on the Certified Emission Reduction Plus (CERplus) futures contract shall be subject to the general rules of the Exchange insofar as applicable.

1266101. OPTION CHARACTERISTICS

The number of months open for trading at a given time shall be determined by the Exchange.

1266101.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

1266101.B. Trading Unit

A Certified Emission Reduction Plus (CERplus) serial call option traded on the Exchange represents an option to assume a long position in the December contract month of the underlying Certified Emission Reduction Plus (CERplus) futures contract of the relevant year at the strike price. A Certified Emission Reduction Plus (CERplus) put option traded on the Exchange represents an option to a short position in the December contract month of the underlying Certified Emission Reduction Plus (CERplus) futures contract of the relevant year at the strike price.

1266101.C. Price Increments

Prices shall be quoted in Euros (€) and Euro cents (¢) per CER credit. The minimum price fluctuation is €0.01 per CER credit. A cabinet trade may occur at a price of €1.00 per contract, however, if it results in the liquidation of positions for both parties to the trade.

1266101.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits

1266101.E. Termination of Trading

The option contract shall expire at the close of trading three business days prior to the expiration of the closest contract month of the underlying Certified Emission Reduction Plus (CERplus) futures contract.

1266101.F. Type Option

The option is European style, which is exercised at expiration only. At expiry, automatic exercise occurs for those options that are one or more ticks in the money. Options that are at the money at expiration lapse.

1266102. EXERCISE PRICES

Trading shall be conducted for option contracts with strike prices in increments as set forth below.

1. On the first business day of trading in an option contract month, trading shall be at the following strike prices: (i) the previous day's settlement price for the Certified Emission Reduction Plus (CERplus) futures contract in the corresponding delivery month rounded off to the nearest fifty-cent increment strike price; (ii) the ten fifty-cent increment strike prices which are ten increments higher than the strike price described in subsection (i) of this rule; and (iii) the ten fifty-cent increment strike prices which are ten increments lower than the strike price described in subsection (i) of this rule.
2. Thereafter, on any business day prior to the expiration of the option contract, new consecutive strike prices for both puts and calls will be added such that there will be ten increments above and below the at-the-money option.
3. Notwithstanding the provisions of subsections (1) and (2) of this rule, if the Exchange determines that trading in the option contract will be facilitated thereby, the Exchange may change the increments between strike prices, the number of strike prices which shall be traded on the first day in any new option contract month, the number of new strike prices which will be

introduced on each business day or the period preceding the expiration of an option contract in which no new strike prices may be introduced.

Chapter 1267
Emission Reduction Unit (ERU) Serial Option

1267100. SCOPE OF CHAPTER

This chapter is limited in the application to serial put and serial call options on the Emission Reduction Unit (ERU) futures contract. In addition to the rules of this chapter, transactions in serial options on the Emission Reduction Unit (ERU) futures contract shall be subject to the general rules of the Exchange insofar as applicable.

1267101. OPTION CHARACTERISTICS

The number of months open for trading at a given time shall be determined by the Exchange.

1267101.A. Trading Schedule

The hours of trading for this contract shall be determined by the Exchange.

1267101.B. Trading Unit

An Emission Reduction Unit (ERU) serial call option traded on the Exchange represents an option to assume a long position in the December contract month of the underlying Emission Reduction Unit (ERU) futures contract of the relevant year at the strike price. An Emission Reduction Unit (ERU) put option traded on the Exchange represents an option to a short position in the December contract month of the underlying Emission Reduction Unit (ERU) futures contract of the relevant year at the strike price.

1267101.C. Price Increments

Prices shall be quoted in Euros (€) and Euro cents (¢) per ERU credit. The minimum price fluctuation is €0.01 per ERU credit. A cabinet trade may occur at a price of €1.00 per contract, however, if it results in the liquidation of positions for both parties to the trade.

1267101.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits

1267101.E. Termination of Trading

The option contract shall expire at the close of trading three business days prior to the expiration of the closest contract month of the underlying Emission Reduction Unit (ERU) futures contract.

1267101.F. Type Option

The option is European style, which is exercised at expiration only. At expiry, automatic exercise occurs for those options that are one or more ticks in the money. Options that are at the money at expiration lapse.

1267102. EXERCISE PRICES

Trading shall be conducted for option contracts with strike prices in increments as set forth below.

1. On the first business day of trading in an option contract month, trading shall be at the following strike prices: (i) the previous day's settlement price for the Emission Reduction Unit (ERU) futures contract in the corresponding delivery month rounded off to the nearest fifty-cent increment strike price; (ii) the ten fifty-cent increment strike prices which are ten increments higher than the strike price described in subsection (i) of this rule; and (iii) the ten fifty-cent increment strike prices which are ten increments lower than the strike price described in subsection (i) of this rule.
2. Thereafter, on any business day prior to the expiration of the option contract, new consecutive strike prices for both puts and calls will be added such that there will be ten increments above and below the at-the-money option.
3. Notwithstanding the provisions of subsections (1) and (2) of this rule, if the Exchange determines that trading in the option contract will be facilitated thereby, the Exchange may change the increments between strike prices, the number of strike prices which shall be traded on the first day in any new option contract month, the number of new strike prices which will be

introduced on each business day or the period preceding the expiration of an option contract in which no new strike prices may be introduced.

Appendix B

NYMEX Rulebook Chapter 5 Position Limit Table

(Bold/underline indicates additions)

Contract Name	Rule Chap-ter	Com-modity Code	All Month Account-ability Level	Any One Month Account-ability Level	Expira-tion Month Limit	Report-ing Level	Aggre-gate Into (1)
			Rule 560	Rule 560	Rule 559	Rule 561	
Green Exchange							
Certified Emission Reduction Plus (CERplus) Option	**1265**	**PCL**	**30,000**	**20,000**	**6,000**	**25**	**CPL**
Certified Emission Reduction Plus (CERplus) Serial Option	**1266**	**CPE**	**30,000**	**20,000**	**6,000**	**25**	**CPL**
Emission Reduction Unit (ERU) Serial Option	**1267**	**RUE**	**12,000**	**8,000**	**4,000**	**25**	**REU**

Appendix C

RULE 588.H. Globex Non-Reviewable Trading Ranges

(Bold/underline indicates additions)

NAME	Bid/Ask Reasonability	Non-Reviewable Range (NRR)
Certified Emission Reduction Plus (CERplus) Option	The greater of the delta times the underlying futures non-reviewable range or 20% of the fair value premium up to the underlying futures non-reviewable range with a minimum reasonability of 20 ticks	20% of premium up to ¼ of the underlying futures non-reviewable range with a minimum of 1 tick.
Certified Emission Reduction Plus (CERplus) Serial Option	The greater of the delta times the underlying futures non-reviewable range or 20% of the fair value premium up to the underlying futures non-reviewable range with a minimum reasonability of 20 ticks	20% of premium up to ¼ of the underlying futures non-reviewable range with a minimum of 1 tick.
Emission Reduction Unit (ERU) Serial Option	The greater of the delta times the underlying futures non-reviewable range or 20% of the fair value premium up to the underlying futures non-reviewable range with a minimum reasonability of 20 ticks	20% of premium up to ¼ of the underlying futures non-reviewable range with a minimum of 1 tick.

Appendix D

DELIVERABLE SUPPLY ANALYSIS

Introduction

Background on the European Union Emissions Trading Scheme (EU ETS)

The EU ETS is Europe's flagship policy to fight climate change and is the largest carbon emissions trading program in the world.[1] The EU ETS brings together 30 countries (27 EU Member States plus Iceland, Liechtenstein, and Norway), covering CO2 emissions from over 11,000 installations. These facilities include power stations, combustion plants, oil refineries, and iron and steel works, as well as factories making cement, glass, lime, bricks, ceramics, pulp, and paper. Beginning in 2012, the EU ETS included about 4,000 aircraft operators that depart from or arrive at an EU airport.

The EU ETS operates in phases: 2005-2007 (Phase I), 2008-2012 (Phase II, coinciding with the first commitment period of the Kyoto Protocol), 2013-2020 (Phase III), etc. There is no end date to the EU ETS. The EU ETS allows companies to use allowances to meet compliance requirements. These allowances may be distributed for free or auctioned off. International offset credits may also be used for compliance. These offset credits are generated under the Kyoto Protocol's project based flexible mechanisms specifically to help meet firms' compliance targets. These offsets are known as Certified Emission Reduction units (CERs), from Clean Development Mechanism (CDM) projects in developing countries, and Emission Reduction Units (ERUs), from Joint Implementation (JI) projects in countries with targets under the Kyoto Protocol (i.e. industrialized countries).

Since carbon trading took off in Europe, trading volumes and underlying asset values have grown beyond expectations. The EU ETS was valued at €96 billion (approximately $125 billion) in 2011.[2]

Overview of Joint Implementation

The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change (UNFCCC).[3] The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing greenhouse gas (GHG) emissions. These reductions amount to an average of 5% of 1990 levels over the period 2008 to 2012.

The Kyoto Protocol was adopted in Kyoto, Japan, on 11 December 1997 and entered into force on 16 February 2005. The detailed rules for the implementation of the Protocol were adopted at COP 7 in Marrakesh in 2001 and are called the "Marrakesh Accords." Under the Treaty, countries must meet their targets primarily through national measures. However, the Kyoto Protocol offers them an additional means of meeting their targets by way of three market-based mechanisms.

The Kyoto mechanisms are:

•Emissions trading of allowances– known as "the carbon market,"
•Clean development mechanism (CDM), and
•Joint implementation (JI).

[1] http://ec.europa.eu/clima/policies/ets/index_en.htm
[2] http://www.pointcarbon.com/aboutus/pressroom/pressreleases/1.1714530
[3] http://unfccc.int/kyoto_protocol/items/2830.php

Overview of JI

JI is defined in Article 6 of the Kyoto Protocol and allows a country with an emission reduction or limitation commitment under the Kyoto Protocol (Annex B Party, i.e. developed countries) to earn emission reduction units (ERUs) from an emission-reduction or emission-removal project in another Annex B Party. Each ERU is equivalent to one ton of CO2 and can be counted towards meeting the entity's Kyoto target.[4]

A JI project must provide a reduction in emissions by polluting sources, or an enhancement of removals by sinks, that is additional to what would otherwise have occurred (the additionality criterion). Projects must have approval of the host Party, and the participants have to be authorized to participate by a Party involved in the project.

If a host Party meets all of the eligibility requirements to transfer and/or acquire ERUs, it will verify the additionality of the emission reductions or enhancements of removals from the JI project. Upon such verification, the host Party will issue the appropriate quantity of ERUs. This procedure is commonly referred to as the "Track 1" procedure."

If a host Party does not meet all, but only a limited set of eligibility requirements, verification of emission reductions or enhancements of removals as being additional must be done through the verification procedure under the Joint Implementation Supervisory Committee (JISC), a UN body. Under this so-called "Track 2" procedure, an independent entity accredited by the JISC has to determine whether the relevant requirements have been met before the host Party can issue and transfer ERUs.

Overview of CDM

The aim of global emissions trading is to reduce emissions at lowest costs. However, as countries differ, the respective cost for reducing emissions varies depending on the country's state of development, its intensity of energy use, available resources, and other factors. Thus, it is reasonable that countries with high reduction costs are therefore interested in reducing emissions abroad where it is cheaper rather than reducing emissions domestically. In response, the Clean Development Mechanism (CDM) was introduced into the Kyoto Protocol. Under the CDM, developed countries or companies can finance emission reduction projects in developing countries, where reduction measures are usually cheaper than in industrialized countries. The reduced emissions are verified by a neutral third party and checked by a UN body. For each metric ton of CO2 reduced and certified, the United Nations Framework Convention on Climate Change (UNFCCC) issues the project one certified emissions reduction (CER). Each CER includes a serial number that allows the holder to track from which project the CER originates.

CERs can be used by all countries that accepted emission reduction targets under the Kyoto Protocol. Instead of reducing one ton of CO2 domestically, the country can surrender one CER.[5] The most prominent country outside Europe that uses CERs to replace part of the domestic abatement requirements is Japan. The government is engaged in various projects, but the private sector also uses CERs to fulfill a voluntary commitment to reduce emissions.

In the EU, countries agreed to introduce a union-wide emissions trading scheme (i.e., the EU ETS) for the energy-intensive industries, which covers approximately 45% of total EU emissions. The third trading period of the EU ETS, lasting from 2013 to 2020, is characterized by an increasing reliance on auctions for European Union allowances (EUAs) and stricter requirements on what types projects can be used to produce CERs (and ERUs) for compliance purposes.

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[4] http://unfccc.int/kyoto_protocol/mechanisms/joint_implementation/items/1674.php

[5] Compliance will mainly be determined by surrendering European Union Allowances (EUAs), which are allocated for free and auctioned off to market participants.

Companies can use CERs to offset part of their compliance obligations in the EU ETS. In total, all companies together will be allowed to use about 1.8 gigatons (Gt) of CERs until 2020 (1.4 Gt until 2012) if the EU sticks to its 20% reduction target. If the EU increases its reduction target to 30%, the limit for the use of international credits will increase to about 2.7 Gt.

A new feature regarding the use of CERs after 2012 will be that the EU reserves the right to restrict the use of certain international credits. Specifically, §11 (a), 9 of Directive 2003/87/EC with amendment through Directive 2009/29/EC states:

> *From 1 January 2013, measures may be applied to restrict the use of specific credits from project types.*
>
> *Those measures shall also set the date from which the use of credits under paragraphs 1 to 4 shall be in accordance with these measures. That date shall be, at the earliest, six months from the adoption of the measures or, at the latest, three years from their adoption.*

On January 21, 2011, the EU Commission adopted a ban on the use of CERs stemming from hydrochlorofluorocarbon (HFC) projects and N2O adipic acid projects starting in 2013. It should be noted, however, that new restrictions could be introduced to the system or existing restrictions could be removed or altered at any time, but, as indicated above) any decisions would have to be adopted always at least six month before the restrictions are applied.

Trading of Allowances and Credits

In October 2012, the EU ETS transitioned to a centralized registry for maintaining information on allowance/credit distributions, holdings, transfers, and redemptions. Previously, such information was retained at the national level, with the European Union Transaction Log (EUTL) and the preceding Community Independent Transaction Log (CITL) keeping duplicate records.

Affected entities must have accounts in the Union Registry. These accounts are used to accept initial allocations of allowances and credits, record transfers, and show current balances, and determine compliance with associated allowance/credit redemptions. Each country has a national administrator that effectively maintains the accounts of entities that are located within that country's borders. The national administrator also keeps records of allowance/credit holdings, transfers, and redemptions. All allowance/credit holdings and transactions are recorded in the EUTL of the Union Registry. Because some allowances and credits may be transferred outside the EU or be transferred in from outside the EU, the International Transaction Log (ITL) is used as a back-up for maintaining information allowance/credit holdings and transactions (both domestic and international).[6]

JI Projects and the Supply of ERUs

According to the UNEP RISØ Centre, there were a total of 612 known JI projects as of October 1, 2012. The list includes JI projects at all stages in the pipeline, from initial development to full implementation. Russia and the Ukraine account for over half of all JI projects. Approximately 207 million ERUs will be generated annually by these projects. However, it is unclear exactly when each project will come online and start accruing ERUs. These projects, in total, will achieve (both actual and expected) a 920 million ton decrease in carbon output by the end of 2012, which is calculated from the beginning of the crediting period. Of the total decrease (both realized and expected) in CO2 emissions, these projects have actually earned 233 million ERUs as of October 1, 2012. The table below has been appended with information regarding applicability of certain projects during Phase II and Phase III of the EU emissions

[6] The ITL was also used prior to the creation of the Union Registry.

reduction program. Of the 233 million issued ERUs, 230 million are eligible for use in Phase II, while 167 million are eligible in Phase III.

Breakdown of ERUs by Project Type

ERU Project Type	Number	ERU/Year	ERUs by 2012 (1,000)	ERUs Issued (1,000)	Phase II Eligible	Phase III Eligible
Fugitive	94	67,519	308,032	55,585	Y	Y
EE Industry	93	38,622	176,553	53,843	Y	Y
Landfill Gas	80	3,903	17,035	2,005	Y	Y
N20	54	27,159	106,616	33,150	Y	N
Biomass	46	3,305	16,059	2,633	Y	Y
Wind	41	3,435	11,736	2,634	Y	Y
Energy Distribution	40	7,594	40,644	17,592	Y	Y
EE Supply Side	33	9,728	29,731	2,042	Y	Y
Hydro	28	3,564	16,056	2,968	N	Y
Coal Bed/ Mine methane	24	9,677	47,380	5,393	Y	Y
Fossil Fuel Switch	22	9,363	37,191	5,919	Y	Y
EE Service	11	578	2,788	1,302	Y	Y
Biogas	9	1,059	4,586	787	Y	Y
PFCs	8	6,340	31,649	12,575	Y	Y
EE Own Generation	6	2,193	10,847	867	Y	Y
Geothermal	5	138	1,272	543	Y	Y
Cement	4	677	2,460	293	Y	Y
HFCs	4	9,022	43,777	32,739	Y	N
Afforestation/Reforestation	3	595	2,751	0	Y	Y
Transport	3	1,488	7,442	0	Y	Y
CO2 Capture	1	268	1,071	0	Y	Y
EE Households	1	699	3,493	211	Y	Y
Solar	1	26	38	0	Y	Y
Agriculture	1	64	321	0	Y	Y
Tidal	0	0	0	0	Y	Y
Total	612	207,016	919,527	233,082		
Phase II Eligible (Issued Only)		203,452	903,472	230,113		
Phase III Eligible (Issued Only)		170,835	769,135	167,192		

Source: UNEP RISØ Centre (http://www.cdmpipeline.org/ji-projects.htm#4).

In Phase II, ERUs originating from nuclear; land use, land-use change, and forestry (LULUCF); and large hydroelectric projects are not permitted for compliance purposes. In Phase III, hydroelectric projects are permitted but those related to industrial gases (HFC and N2O), as well as nuclear and LULUCF projects, are not. In terms of determining ERU supply, one must take into account credits that have already been

redeemed. According to a press release issued May 15, 2012, 100 million ERUs had been redeemed since 2008.[7]

To accurately gauge the deliverable supply of ERUs, one would need to know the type of ERUs redeemed (i.e., whether they were Phase II or Phase III eligible). Redemption in the earlier years probably affected both classes of ERUs. However, as the start of Phase III approached and new restrictions on redemptions were put in place, the ERUs used for compliance probably became skewed toward the Phase II variety, as Phase III-eligible ERUs would be more valuable in Phase III.

Given those facts, one could consider the worst-case scenario where all 100 million redeemed ERUs are deducted from the issued values for Phase II and for Phase III. Doing so, approximately 130,113,000 ERUs are currently available and usable in Phase II. For Phase III, 67,192,000 ERUs will be available and usable. Both of these values are expected to increase as JI projects in the pipeline come online. On a contract-equivalent basis, where one contract equals 1,000 ERUs, the deliverable supply of ERUs is 130,452 contracts for Phase II and 67,192 contracts for Phase III. However, in reality, the numbers of usable ERUs in Phases II and III are likely higher.

Because compliance occurs annually (March of each year for emissions produced between January and December of the previous year), an allowance that is delivered on one ERU futures contract month may be redelivered on a subsequent contract month that occurs before true up. Thus, the annual supply of ERUs applies to all contract months.

The current spot-month speculative position limit for the ERU futures contract is 4,000 contracts, and this level will be applied to the ERU serial option contract, as it exercises into the underlying futures. The estimated deliverable supply of 130,113 contracts (Phase II) and 67,192 (Phase III) is more than four times the spot-month speculative position limit. In fact, the 4,000 contract limit is 3% of the Phase II deliverable supply and 6% of the Phase III deliverable supply.

CDM Projects and the Supply of CERs

The CDM started quickly after the rules were finalized in 2002, and the first project was registered in November 2004. The first CER issuance followed in August 2005. Since then, more than 4,900 projects have been registered worldwide, with many projects being located in China and India.[8] Other countries with significant numbers of registered projects are Brazil, Mexico, and Malaysia.

In the early days of the CDM, large projects with low reduction costs were developed, fully in line with the spirit of the CDM to reduce emissions at lowest costs. These projects destroyed potent greenhouse gases, e.g. HFCs. HFC-23 has a global warming potential of 11,700 tons carbon dioxide, therefore each ton of HFC abated is rewarded with 11,700 CERs. Of the issued CERs until October 2012, over 63% have originated from industrial gas (i.e., HFC and N20) abatement projects. Projects reducing emissions with renewable energies hold a share of around 21%, and energy efficiency projects have produced around 5% of all issued CERs thus far.[9]

In the EU ETS, CERs are an attractive source of emission rights, as they trade at a discount to European Allowances (EUAs).[10] In 2011 178.8 million CERs were surrendered for compliance instead of EUAs.[11]

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[7] http://europa.eu/rapid/press-release_IP-12-477_en.htm?locale=en

[8] https://cdm.unfccc.int/Statistics/index.html

[9] http://www.cdmpipeline.org/cdm-projects-type.htm

[10] As of November 2, 2012, Blue Next reports a spot CER price of €1.08 per ton versus a Phase II EUA price of €8.07 per ton.

Assessing government demand is more difficult, as countries do not need to finally decide how many CERs they use before 2015. However, government demand does not decrease the volume of CERs available to the market, as governments would only have to surrender the CERs for their Kyoto compliance in 2015. Thus, any government could decide to trade the CERs it has already bought, either because the emissions of the country have fallen and the CERs are not needed for compliance, because the government has bought excess "assigned amount units" volumes in order to swap out some CERs, or just to earn some trading profits. The majority of issued CERs, however, are held in accounts of trading companies and companies that bought them to use them for compliance but did not use them yet.

CERs can be banked from the second trading period to the third trading period without volume restrictions. However, due to the upcoming qualitative restrictions, the majority of currently available CERs, i.e. those stemming from HFC- and N2O adipic acid-projects, will not be eligible post 2012, thus banking of those CERs will be useless to EU ETS participants.

According to the UNEP RISØ Centre, there were a total of 9,021 known CDM projects as of October 1, 2012. The list includes CDM projects at all stages in the pipeline, from initial development to full implementation. Approximately 1.3 billion CERs will be generated annually by these projects. However, it is unclear exactly when each project will come online and start accruing CERs. These projects, in total, will achieve a 2.6 billion ton decrease in carbon output by the end of 2012, which is calculated from the beginning of the crediting period. Of the total decrease (both realized and expected) in CO2 emissions, these projects have earned 1 billion CERs as of October 1, 2012. The table below has been appended with information regarding applicability of certain projects during Phase II and Phase III of the EU emissions reduction program. Of the 1 billon issued CERs, 907 million are eligible for use in Phase II, while 374 million are eligible in Phase III.

Breakdown of CERs by Project Type

CER Project Type	Number	CERs/Year	2012 CERs (1,000)	CERs Issued (1,000)	Phase II Eligible	Phase III Eligible
Wind	2,597	239,193	307,740	79,442	Y	Y
Hydro	2,317	327,655	407,007	102,864	N	Y
Biomass	906	60,855	153,587	26,474	Y	Y
Methane Avoidance	776	35,011	94,781	12,084	Y	Y
EE Own Generation	476	62,302	178,514	46,025	Y	Y
Landfill Gas	430	83,594	187,813	27,731	Y	Y
Solar	372	12,260	5,845	166	Y	Y
EE Industry	164	7,961	15,766	2,074	Y	Y
Fossil Fuel Switch	149	71,340	162,389	35,505	Y	Y
Coal Bed/ Mine methane	112	72,089	102,943	16,177	Y	Y
EE Supply Side (Power Plants)	119	64,399	42,301	1,811	Y	Y
EE Households	117	4,348	4,768	135	Y	Y
N2O	109	58,480	251,382	214,397	Y	N
Afforestation/Reforestation	71	3,649	21,233	4,072	Y	Y
Fugitive	65	48,838	82,742	10,460	Y	Y

[11] http://www.cdcclimat.com/The-EU-ETS-and-the-economic-downturn-falling-emissions-and-increasing-use-of-credits.html

Cement	43	6,559	25,298	2,154	Y	Y
Transport	43	5,568	6,774	486	Y	Y
EE Service	38	1,724	1,003	6	Y	Y
Geothermal	35	12,196	13,242	4,262	Y	Y
Energy Distribution	27	10,165	8,596	316	Y	Y
HFCs	23	81,334	473,654	420,608	Y	N
PFCs and SF6	18	5,540	11,581	2,211	Y	Y
Mixed Renewables	7	417	129	0	Y	Y
CO2 Usage	4	85	240	10	Y	Y
Tidal	1	315	1,104	0	Y	Y
Agricultural	2	58	25	0	Y	Y
Total	9,021	1,275,934	2,560,460	1,009,473		
Phase II Eligible	6,704	948,279	2,153,453	906,609		
Phase III Eligible	8,889	1,136,120	1,835,424	374,468		

In Phase II, CERs originating from nuclear; land use, land-use change, and forestry (LULUCF); and large hydroelectric projects are not permitted for compliance purposes. In Phase III, hydroelectric projects are permitted but those related to industrial gases (HFC and N2O), as well as nuclear and LULUCF projects, are not. In terms of determining CER supply, one must take into account credits that have already been redeemed. According to a press release issued May 15, 2012, 455 million CERs had been redeemed since 2008.[12]

To accurately gauge the deliverable supply of CERs, one would need to know the type of CERs redeemed (i.e., whether they were Phase II or Phase III eligible). Redemption in the earlier years probably affected both types of CERs. However, as the start of Phase III approached and new restrictions on redemptions were put in place, the CERs used for compliance probably became skewed toward the Phase II variety, as Phase III-eligible CERs would be more valuable in Phase III.

Like the analysis used for the ERUs, one could consider the worst-case scenario where all 455 million CERs are deducted from the issued values for Phase II and for Phase III. While this is possible for Phase II, as the number of issued CERs eligible in Phase II exceeds the number of redemptions, it is not possible for Phase III. In Phase III, only 374,468,000 credits are eligible, less than the 455 million redeemed. However, as mentioned above, it is likely that a mix of Phase II and Phase III allowances have been redeemed since 2008.

In using the worst-case methodology for Phase II, the deliverable supply of CERs eligible for Phase II is estimated to be 451,609,000 credits, or 451,609 contracts (based on one contract equaling 1,000 CERs). In order to estimate the deliverable supply of CERs for Phase III, it is assumed that 75% of the redeemed CERs were eligible for Phase III. That assumption puts the Phase III deliverable supply at 33,218,000, or 33,218 contracts.

Because compliance occurs annually (March of each year for emissions produced between January and December of the previous year), an allowance that is delivered on one CERplus futures contract month

[12] http://europa.eu/rapid/press-release_IP-12-477_en.htm?locale=en

may be redelivered on a subsequent contract month that occurs before true up. Thus, the annual supply of CERs applies to all contract months.

The spot-month speculative position limit for the CERplus futures contract is 6,000 contracts, and this level will be applied to the CERplus option and serial option contracts, as both options exercise into the underlying futures. The estimated deliverable supply of 451,609 contracts (Phase II) and 33,218 (Phase III) is more than four times the spot-month speculative position limit. In fact the 6,000 contract limit is 1% of the Phase II deliverable supply and 18% of the Phase III deliverable supply.

CER Market Activity

CER trading volumes are expected to increase for two reasons. First, the issuance of new volumes will significantly increase the number of outstanding CERs available in trading accounts. Second, due to the upcoming qualitative restrictions, market participants planning to bank CERs from the second trading period to the third trading period will need to swap “restricted” CERs for Phase III-eligible CER credits, which will be valid between 2013 and 2020. However, this second point is likely to be short lived as the switch to Phase III-eligible CER credits will need to be completed by March 2013, which is the end of the last compliance year in Phase II.