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International Accounting Standards Board

INFORMATION FOR OBSERVERS

Board Meeting: **March 2009, London**

Project: **Emissions Trading Schemes**

Subject: **Cap and trade schemes (Agenda paper 13A)**

INTRODUCTION

1 The objective of this Background Paper is to explain the mechanisms in an emissions trading scheme. The staff believe this information to be useful for the boards in deciding on an approach for the initial accounting of an allocation of tradable offsets in a cap and trade scheme.

2 The Agenda Paper is set out as follows:

(a) some background information on cap and trade schemes (¶3-¶28)

(b) allocation plans (¶29-¶34)

(c) stipulations attaching to an allocation (¶35-¶40).

SOME BACKGROUND INFORMATION ON CAP AND TRADE SCHEMES

Major features of cap and trade schemes

3 An emissions cap and trade scheme is a regulatory approach to limit specified emissions by introducing a market-based mechanism. The desired reduction in

emissions will be achieved over time by reducing the overall cap of emissions that may be released in a period. This Agenda Paper illustrates the mechanisms of a cap and trade scheme by reference to two different cap and trade schemes:

(a) European Greenhouse Gas Emission Trading Scheme (EU ETS). The EU ETS, which started in 2005 with a three year trial phase, is by far the biggest existing emissions trading scheme (¶11-¶17).

(b) the US Lieberman-Warner Climate Securities Bill (S. 3036) (Lieberman-Warner Bill). If enacted into law, the Lieberman-Warner Bill has the potential to establish a major emissions trading scheme (¶18-¶23).

4 In a cap and trade scheme, a *scheme administrator* (eg a governmental body) sets an overall cap on the amount of emissions that may be released during a specified *commitment period*. The overall cap is implemented by issuing tradable offsets to emit.[1] Each tradable offset can be used to offset a specified amount of regulated emissions (eg one tonne of carbon dioxide (CO_2)). For administrative reasons, the commitment period (typically five or more years) is usually divided into annual *compliance periods*.

5 The circulation of tradable offsets is governed by *allocation plans* (¶29-¶34). The allocation plans determine the number of tradable offsets that are (a) freely allocated to eligible entities and (b) sold or auctioned on the open market over the commitment period. The tradable offsets are *allocated* for the commitment period, but typically *issued* in yearly instalments covering the respective compliance year. Throughout the Agenda Papers, the term 'issued offsets' refers to allocated offsets that have been issued free of charge.

6 Before a specified deadline following the compliance period, entities must offset their emissions by remitting to the scheme administrator tradable offsets equal to their actual emissions in the compliance period.

[1] The staff refer to the term *tradable offset* instead of *emissions allowances* because the instrument, strictly speaking, does not allow to emit but can be used to offset an emissions obligation. Entities, in addition, must hold a permit to emit that is typically separately given to entities.

Flexibility mechanisms in the schemes

7 Emissions cap and trade schemes include mechanisms that give entities flexibility in meeting their emissions obligations. The main flexibility mechanisms are:

(a) trading

(b) project-based activities

(c) penalty payments.

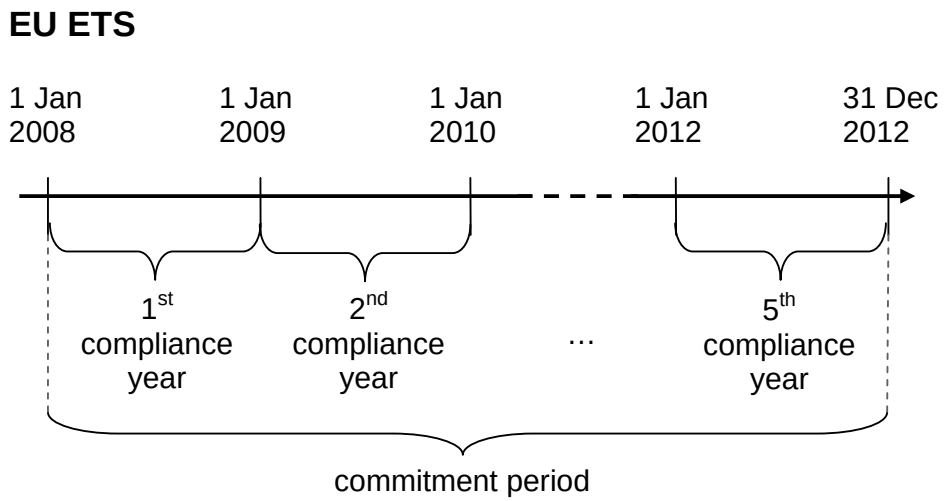
8 The trading mechanism, which is an integral part of all schemes, allows entities to buy and sell tradable offsets. Offsets are banked in electronic registries. The trading activity varies with the size of the scheme and markets are considered to be liquid in some schemes (eg EU ETS), but not in others.

9 The second flexibility mechanism is for entities to engage in project-based activities. In a project-based activity, entities reduce or remove emissions in eligible countries outside the scheme. Eligible countries are, typically, developing countries with no proprietary emissions trading schemes in place. In return for achieving emissions reductions in eligible countries, the entities that carry out the activities receive *certificates*. These certificates form a class of tradable offsets that can be used to offset emissions obligations. In most schemes, the use of project-based activities is only supplemental to domestic action. That is, domestic action usually is required to make up the majority of an entity's total emissions reduction efforts.

10 The third flexibility mechanism is for entities to pay a penalty. In some schemes, entities may offset an emissions obligation by paying a penalty instead of surrendering tradable offsets. The penalty may, for example, be paid to the government or into an environmental fund. The option to pay a penalty to satisfy an emissions obligation establishes a price cap on tradable offsets (at the level of the penalty payment). However, in some schemes, penalty payments do not relieve an entity of its obligation to remit tradable offsets that correspond to its emissions during the compliance relevant period. That is, in addition to the penalty, the entity has to come up for the shortfall by surrendering the offsets in a future period.

EU ETS

11 In the EU ETS, the current commitment period (2008 through 2012) is divided into five annual compliance years. Hence, an entity is entitled to five instalments in the current commitment period.



12 The scheme administrators (government bodies of EU Member States) allocate the majority of the tradable offsets (European Emission Allowances/EUAs) free of charge to eligible entities, with the remaining offsets being auctioned in the market place. Entities are free to trade their EUAs (on exchanges or over the counter), and large emitters—as evidenced by market activity—actively do so.

13 Allocated offsets are issued by the end of February in each compliance year (ending in December). By April of the following year, entities have to settle their emissions obligation for the compliance year by surrendering tradable offsets equal to their level of emissions during the compliance year. Entities may effectively borrow EUAs from their following compliance year's February allocation when settling their obligation for the current compliance year (eg they may use EUAs issued for compliance year 2009 to settle obligations for compliance year 2008). Unused EUAs may be banked for use in future compliance years.

14 The EU ETS limits the number of EUAs that the administrator can auction or sell to 10% of the total EUAs given out during the commitment period. It is expected that the percentage of EUAs that are auctioned will significantly increase and the percentage that are freely allocated will be reduced in the next commitment period.

Currently, there is a contentious debate whether the utility sector—the industry most affected by the EU ETS—should receive any free allocations in the next commitment period.

15 The EU ETS allows the use of flexibility mechanisms besides trading EUAs. Entities may engage in project-based activities. Entities can either directly engage in the generation of certificates or buy certificates on the open market. As a rule of thumb, entities are allowed to use certificates to supplement their EUA allocation to satisfy up to 10% of their emissions obligation.

16 A regulated entity that does not hold enough offsets at the due date pays a penalty of €100 for each excess unit of emissions. Additionally, the entity has to make up for the shortfall by delivering offsets in the next compliance year. That is, the penalty payment does *not* release an entity from its obligation to remit offsets.

17 Currently, market activity demonstrates that a significant number of market participants engage in trading activities in the EU ETS. Those entities (a) buy and sell EUAs and (b) swap different classes of offsets. In the EU ETS, market participants swap EUAs against certificates from project-based activities, as the latter trade at lower prices. The staff understand that this is, amongst other reasons, due to the limitation on the number of certificates that may be remitted in lieu of EUAs. For participants in a scheme, the swaps reduce their overall compliance costs.

Lieberman-Warner Bill

18 In the United States, various states have developed regional programs to reduce greenhouse gas emissions. No national program has been implemented to date. The most promising attempt so far has been the Lieberman-Warner Bill, which was debated in the US Senate in 2008 but not voted on. Given the political change in the United States after the November 2008 elections, it seems reasonably likely that the Lieberman-Warner Bill (or another similar bill) will be reintroduced and enacted into law within the next few years. President Obama has indicated support for a national cap and trade scheme to reduce greenhouse emissions.

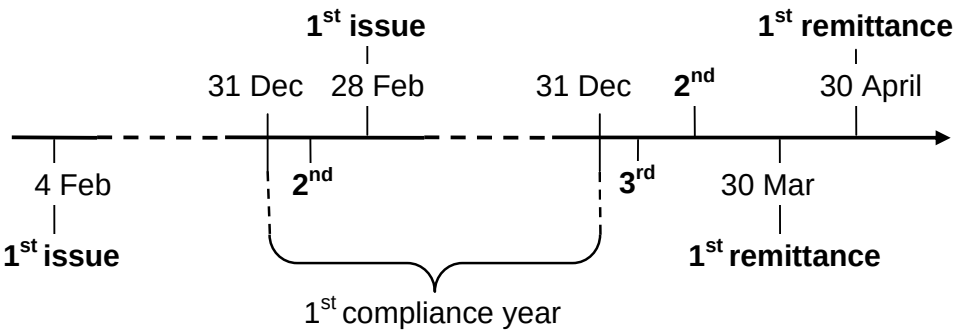
19 The Lieberman-Warner Bill would establish a national cap and trade scheme. If enacted as currently drafted, it would take effect at the beginning of calendar year

2012 and would run to 2050. The Lieberman-Warner Bill allocates a percentage of the quantity of tradable offsets free of charge to specified industries. The percentage would be reduced over time, and there would be no free allocation as of 2030. Strikingly, the commitment period in the Lieberman-Warner Bill is significantly longer than in the EU ETS. As a result, the Lieberman-Warner Bill administrator would determine the free allocation for a much longer term—ie for 18 years, compared with 5 years in the EU ETS.

20 The commitment period would be divided into annual compliance periods coinciding with the calendar years. Entities would receive tradable offsets free of charge in annual instalments. This is consistent with the EU ETS. However, the *date* at which tradable offsets are issued would be different from the EU ETS. Under the Bill, tradable offsets would be issued before the start of the compliance period, specifically not later than 330 days before the beginning of each calendar year (ie 4 February) from 2012 to 2030. Entities would be able to bank unused offsets for use in future compliance years.

21 No later than 90 days after the end of each calendar years (ie 30 March) from 2012 to 2050, entities would be required to submit to the scheme administrator tradable offsets equal to their emissions obligations. Hence, the remittance of tradable offsets would not only overlap with *the following year's* instalments, as in the EU ETS, but with the following *two years'* instalments. For example, when settling its 2012 obligation an entity would be able to use offsets for compliance years 2012, 2013 and 2014. The following figure illustrates the differences in the EU ETS (above axis) and in the Lieberman-Warner Bill (LWB) (below axis).

EU ETS



LWB

22 The Lieberman-Warner Bill also allows the use of flexibility mechanisms. Entities would be allowed to use certificates generated in project-based activities (in lieu of proprietary tradable offsets) to offset an entity's emissions obligations. Eligible project-based activities and countries have yet to be determined. Similar to the EU ETS, the use of certificates generated in project-based activities to offset emissions obligations would be restricted. Domestic action would be required to make up the majority of an entity's total emissions reduction efforts.

23 A regulated entity that does not hold enough offsets at the due date would be required to pay a penalty. The penalty for each excess unit of emissions is the greater of

(a) US-$200; and

(b) an amount equal to 3 times the average market value of an offset during the calendar year for which the offsets were due.

24 Additionally, the entity would be required to make up the shortfall by delivering offsets corresponding to the shortfall in the next compliance year. This is no different from the EU ETS.

Some features of other cap and trade schemes

25 Other cap and trade schemes have different features. Although these Agenda Papers focus on the features of EU ETS and Lieberman-Warner Bill, the staff believe it is important to keep in mind that there are meaningful variations in existing cap and trade schemes.

26 For example, in the United States' Acid Rain Program, tradable offsets to offset sulphur oxides emissions are already *issued* for a period covering the next 30 compliance years. That is, an entity receives an instalment covering multiple compliance years. Each tradable offset has a *vintage year* designation, indicating the first compliance year in which it may be used to offset emissions. Eligible entities currently have in their accounts tradable offsets with vintage years extending beyond the year 2030 that they may trade today, and those offsets may be carried forward (banked) indefinitely. In contrast, in the EU ETS and Lieberman-Warner Bill, instalments are issued one year at a time and do not have vintage year designations.

27 In schemes with tradable offsets that have vintage year designations, entities carry out vintage year swaps to align their offset portfolio with their expected usage requirements. Those trades may entail a cash component to compensate for a difference in the market prices of the exchanged instruments.

28 It should be noted that although the markets for tradable offsets in the EU ETS are active, markets for tradable offsets given out under other schemes have varying levels of activity. Markets for tradable offsets under some schemes are undeveloped and may be considered illiquid.

ALLOCATION PLANS

29 Currently, in most emissions cap and trade schemes, a significant percentage of the quantity of tradable offsets is allocated free of charge to regulated entities. An entity's allocation comprises:

(a) tradable offsets that already have been issued to an entity, and

(b) rights to receive future instalments of tradable offsets.

30 Over time, the free allocation of tradable offsets is expected to gradually be reduced to zero. The allocation rules are complex and—given the cost of acquiring offsets on the open market—highly political and controversial.

31 In many jurisdictions, the allocation of tradable offsets faces a constraint: the allocation must be consistent with the applicable competition law. That is, the

allocation mechanism must not distort competition by favouring some entities. In other words, two identical entities should have identical access to an allocation.

32 The staff understand that the principle—not to distort competition—applies to the major schemes (eg EU ETS, the Lieberman-Warner Bill, draft Australian scheme). The major schemes all provide an industry-specific free allocation that tries to achieve a level playing field within each industry. Eligible entities typically receive tradable offsets based on their capacity or historic output levels multiplied by an emissions factor. Free allocations are usually set at levels below an entity's historical emissions levels in order to effect the desired reduction in emissions.

33 In addition, the major schemes also provide allocations to new entrants. Hence, access to allocations is not restricted to existing installations but is available to new installations that may apply for an allocation after the start of the commitment period. Typically, the scheme administrator sets aside a percentage of the overall cap for new entrants into the scheme. The level of the new entrant reserve reflects an administrator's expectations about new investments in the regulated industry. New entrants are treated in one of the following ways:

(a) new entrants may receive allocations on a first come first serve basis up to the level of the reserve.

(b) the reserve is allocated on a proportionate basis to new entrants. To satisfy this condition, the instalment for each new entrant is calculated and issued only at the end of the compliance period.

(c) new entrants receive allocations without regard to the amount of offsets initially held in reserve. Eventually, the scheme administrator may have to extend the reserve (eg by procuring additional offsets).

34 The objective of the new entrant reserve is to reduce entry barriers for potential entrants so that all entities compete on an equal footing. Although the schemes try to establish a level playing field, the staff understand that some form of distortion across entities is likely to exist. The public disputes on this subject evidence the controversy.

STIPULATIONS ATTACHING TO AN ALLOCATION

35 As described above, the tradable offsets are *allocated* for the commitment period, but *issued* in instalments covering the respective compliance period. Generally, the receipt of *future* instalments depends upon a plant continuing its operations. An eligible entity forfeits future instalments if the emitting plant closes its regulated operations. *Closure* in this sense does not necessarily mean that a plant ceases operations. Rather, a closure is considered to occur once a plant falls below a specified level of operations, thus making it no longer eligible to receive a free allocation of tradable offsets. This applies to all schemes the staff are aware of. A stipulation that requires an entity to remit excess tradable offsets upon closure is often called a *clawback*.

36 Although the treatment of *future* instalments is widely consistent, the schemes are distinct in how they deal with *past* instalments, specifically, instalments for the *current* compliance period. Some schemes require entities to remit excess offsets if a plant closes during a compliance period, others do not. Excess offsets are defined differently in the schemes. Typically, excess offsets are those issued offsets that an entity does not need to offset the emissions from its operations.

37 Closure rules vary in many respects. Some schemes allow allocations to be transferred from a closed installation to a new installation; other schemes do not allow allocations to be transferred or only allow this in restricted circumstances. The staff think the following closure definitions to be among the most prevalent. Closure occurs if an installation:

(a) permanently closes

(b) temporarily stops producing

(c) reduces its output below a specified level.

EU ETS

38 The majority of national allocation plans in the EU ETS does not require entities to remit excess tradable offsets upon closure. Instead, installations retain issued offsets for the year in which closure occurs. The UK administrator is one of the few that

explains why it does not require entities to remit excess offsets upon closure. The UK administrator intends to limit the administrative burden on government, regulators and operators. It reached this conclusion as part of a cost-benefit analysis in the light of the expected closures of installations within the commitment period. The administrator not only specifies the number of expected closures in the current commitment period (5), but also publishes the number of affected tradable offsets (2.6 million).

39 However, the closure rules are not harmonized within the EU ETS. In Germany, for example, an entity has to remit excess tradable offsets upon closure. Also, *when* closure occurs is defined differently in the different national allocation plans.

Lieberman-Warner Bill

40 The scheme that would be implemented under the Lieberman-Warner Bill differs from the EU ETS as to closure rules. According to the Lieberman-Warner Bill, an entity that closes its regulated installations would be required to return excess offsets to the scheme administrator.