IPSASB International Public Sector Accounting Standards Board

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| **Meeting:** | International Public Sector Accounting Standards Board | **Agenda Item 11** | For:<br>☐ Approval<br>☒ Discussion<br>☐ Information |
| **Meeting Location:** | Toronto, Canada | | |
| **Meeting Date:** | September 22–25, 2015 | | |

# Emissions Trading Schemes

## Objectives of Agenda Item

1. The objective of this session is to provide direction on development of an Emissions Trading Schemes consultation paper.

## Materials Presented

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| Agenda Item 11.1 | Issues Paper |

## Actions Requested

2. The IPSASB is asked to discuss the issues identified and provide direction for development of the Emissions Trading Schemes consultation paper.

**Objectives of this Paper**

1. This paper identifies issues for development of a consultation paper (CP) on accounting for Emissions Trading Schemes (ETSs). Staff seek direction from the International Public Sector Accounting Standards Board (IPSASB) on these issues.

**Background**

2. The ETS project was activated in September 2014. Staff received direction on development of the CP in March and June 2015. In June IPSASB members considered different ETS accounting approaches, and directed staff, inter alia, to consider:

   (a) Symmetry between the administrator and participants, working closely with International Accounting Standards Board (IASB) staff;

   (b) The public policy objectives of an ETS which could influence accounting for ETSs;

   (c) Whether a broader view of costs should be considered in this context; and

   (d) Whether there are other accounting approaches that could be included in the CP.

3. The Task Based Group (TBG) consists of Angela Ryan, Aracelly Mendez, Fabienne Colignon (Conseil de Normalisation des Comptes Publics (CNOCP)) and Martin Koehler (European Commission (EC)).

*Collaboration with IASB Staff and Recent IASB Developments*

4. Development of the CP involves collaboration between IPSASB and IASB staff. The IASB project is now named the "Pollutant Pricing Mechanisms" project, but remains focused on ETSs. The IASB last discussed ETS issues in June. Since then IASB staff have developed a new accounting approach for participants. **Appendix A** provides a list of IASB meetings that have discussed ETS issues, since the IASB project restarted in September 2014. The next IASB discussion is planned for October.

**Overview of Issues**

5. This paper requests the IPSASB's direction on the following issues:

   (1) Recent IASB developments and collaboration:

      (a) Note IASB developments, which could impact on the IPSASB project timetable; and

      (b) Agree that the IPSASB's project timetable should continue to allow for consideration of IASB developments as input into development of the CP.

   (2) ETS public policy objectives:

      (a) Note and provide comment on the draft description of a government's ETS public policy objectives; and

      (b) Indicate whether the description, including its discussion of different views on costs, should be included in the CP.

   (3) Alternative accounting approaches: Indicate the approaches for inclusion in the CP:

      (a) All five approaches described under Issue 3; and

      (b) A sixth approach—Approach 6, *Loan of Emission Allowances*, if IASB discussions indicate support for the participants' side of this potential approach.

**Issue 1: Recent IASB Developments and Continued Collaboration**

6. Recent IASB developments have implications for the IPSASB project. The IASB has begun to explore further accounting possibilities. A focus on symmetry means that IPSASB decisions and, to some extent, consideration of approaches, are conditional on IASB developments. This is likely to extend the project timetable. Nonetheless, IPSASB staff recommends that collaboration with the IASB (i.e. the status quo) continue.

*Discussion of Symmetry with IASB Staff*

7. In June, the IPSASB directed staff to identify further accounting alternatives for ETS administrators, working closely with IASB staff to consider symmetry between administrator and participant. In July, IPSASB staff discussed accounting approaches with IASB staff via videoconference, after circulating an IPSASB staff paper, which described the symmetrical treatments for each approach discussed by the IPSASB in June. The paper considered seven approaches; four participant–focused approaches and three administrator–focused approaches.

8. During the videoconference IASB staff described a new approach, which they are working on currently. A brief summary of that approach is provided below. Further information is provided in **Appendix B**. This approach is still evolving and has not been presented to the IASB.

*IASB Staff Developing New Approach—"Approach 6, Loan of Emission Allowances"*

9. The new approach, which IPSASB staff has named "Approach 6, *Loan of Emission Allowances*", treats the ETS administrator's issuance of EAs as a loan to the participant. On that basis, participants do not recognize a "Day 1 Gain", when EAs are granted to them.

10. For this approach there is no liability or expense arising from emissions. Emissions merely confirm the participant's original obligation to repay the loan. A participant recognizes revenue or expenses only in the event that the participant either:

    (a) Emits below the emissions limit set by the quantity of EAs received originally (in which case an asset and equivalent revenue are likely to be recognized); or

    (b) Exceeds that emissions limit (in which case a liability and equivalent expense are likely to be recognized).

11. IASB staff continue to develop this approach. It is expected to be discussed by the IASB at its October 2015 meeting. It will be discussed at the IASB's Accounting Standards Advisory Forum (ASAF) in early October. The IASB staff paper for that discussion—ASAF Agenda Ref. 5, *Cap-and-Trade Emissions Trading Scheme Liabilities*—is available to IPSASB members on request and has been circulated to the TBG for this project.

*IASB's June Discussion: Indicative Views on Approaches—Approach 1 Remains*

12. At its June 2015 meeting the IASB supported the recognition treatment used in two approaches, which only differed in terms of their measurement. (The approaches were named Approach 1, *Gross–Liability (A)* and Approach 2, *Gross–Liability (B)* in the June IPSASB paper.) Of those two approaches the IASB indicated stronger support for the first, Approach 1[1].

[1] In this IPSASB Issues Paper, Issue 3 below identifies an approach which is, by symmetry, the other side of that IASB–favored approach. That approach is named Approach 3, *Pollutant Pricing Mechanisms—Rights and Obligations*.

13. IPSASB staff understand that IASB staff are not actively working on two accounting approaches that were identified in the June IASB meeting papers and then included in the IPSASB June meeting paper, with the following names:

    (a) Approach 3, *Net*; and

    (b) Approach 4, *Gross 1(A)—Revenue on Transfer*.

14. In June the IASB noted problems with Approach 3, *Net*, although some support from constituents for this approach remains. The IASB discussion paper could include these approaches, as well as the latest approach that is presently the main focus of development, and their Approaches 1 and 2 above, in order to provide constituents with a full set of alternatives. The IASB will aim to identify a preferred approach from amongst this group.

IASB Constituents Oppose "Day 1 Gain"

15. IASB staff have indicated that Approach 4, *Gross 1(A)—Revenue on Transfer*, which applies an IPSAS 23 style of revenue recognition, was not supported during the IASB's discussion. IASB constituents have expressed significant concerns over the fact that this approach would result in a "day 1 gain". IASB's concerns about recognition of such a gain are prompted by the view that it does not reflect the economic impact for an ETS participant. A day 1 gain would suggest that the entity was better off than before. However the entity must retain the EAs, because it also has an obligation to return them to the administrator at the end of the compliance period. The amount of EAs provided is set such that it is probable that the ETS participant will need all of them to cover their actual emissions during the compliance period.

IASB Support for Comprehensive Fair Value (Mark–to–Market) Measurement

16. Since June, IASB staff have focused on fair value measurement for both assets and liabilities, with revaluation to current market value at each reporting date. That approach is supported by existence of a reasonably active market for EAs, with reliable and relevant current market values available. Consistent measurement of asset values and liability values also prevents reporting any gain or loss arising solely from a measurement difference. Liabilities in the form of obligations caused by emissions (i.e. legal obligations to submit EAs to the administrator) are denominated in EAs, which means that both the asset (the EAs themselves) and the liability will automatically be "matched" because both are revalued to the same fair value (current market value).

17. While fair measurement has been the recent IASB focus, it is not clear that the alternative accounting approaches in the IASB discussion paper will be restricted to one measurement approach.

18. Symmetry argues in favor of the same measurement approach for administrator and participant, so long as both entities have a "linked instrument" on their statements of financial position, e.g. an asset representing rights to receive EAs on the administrator's statement of financial position and liabilities representing obligations to return EAs on participants' statements of financial position. (This issues paper focuses on alternatives for element recognition. It refers to some of the related measurement issues, but does not focus on measurement.)

*Project Timetables—Approve Consultation/Discussion Paper in 2016*

19. The IASB project aimed to approve an ETS discussion paper (DP) by the end of 2015. The revised IASB timetable has the DP approval in 2016. After its June meeting, no further IASB

meeting discussions on this topic have occurred, and the next discussion is expected in October.

20. The IPSASB project aimed for the CP approval in December 2015. A revised IPSASB work plan has the CP approval scheduled for March 2016. However, IASB developments suggest that this date is optimistic. Symmetry between administrator and participant accounting is viewed as important, which implies that a full set of administrator accounting approaches is conditional on IASB progress to firm up its set of participant accounting approaches. The IASB has not completed its approach identification, and it is not certain that such identification will be completed by the end of 2015.

*IASB Conditionality and the IPSASB Project*

21. In the situation of evolving IASB approaches, staff proposes that IPSASB papers focus on administrator's accounting, while providing sufficient information for IPSASB members to:

    (a) Understand IASB developments, including identification of what approaches are considered more promising than others; and

    (b) Understand and evaluate the implications of symmetry for:

        (i) Any preferred IASB approach that has been sufficiently developed so that its content is reasonably clear; and

        (ii) The administrator–focused approaches under consideration.

22. Staff understands that the project strategy, as indicated in March and June remains to:

    (a) Rely on IASB developments to identify the alternative accounting approaches for ETS participants while contributing, as appropriate, IPSASB perspectives;

    (b) Maintain a focus on symmetry of accounting between administrator and participant;

    (c) Develop a CP that will allow constituents to consider both perspectives (participant and administrator) with coverage of the IASB's discussion paper's conclusions.

23. Staff proposes that the CP should:

    (a) Describe the relationship between the CP and the IASB's discussion paper, such that constituents can respond efficiently and effectively to both documents (or to one combined document, if a combined document is possible); and

    (b) Include a brief discussion on the benefits of symmetrical accounting treatment, between and ETS administrator and participants.

**Actions Requested:**

1. The IPSASB is asked to:

    (a) Note that the IASB:

        (i) Is exploring another accounting approach for participants' ETS involvement; and,

        (ii) Has revised its project timetable so that its discussion paper will be issued during 2016.

    (b) Agree that the IPSASB project timetable should continue to allow for consideration of IASB developments as input into development of the CP.

**Issue 2: ETS Public Policy Objectives**

24. In June, IPSASB members noted that ETSs raise issues with respect to sharing the costs of pollution and reducing emissions in an efficient manner. They commented that a broader concept of costs may apply and staff should consider the public policy objectives of an ETS.

25. A description of governments' public policy objectives for ETSs is provided in **Appendix C**. The description includes comparisons with other policy tools that have the same objectives and discusses the economic impact for the government, in its role as the policy maker choosing to implement an ETS to achieve it public policy objectives.

26. Staff seeks IPSASB members' reactions to and comments on the Appendix C description, particularly in terms of its completeness and usefulness for considerations related to accounting for ETS involvement, rather than editorial level changes. (If the IPSASB indicates that it should be included in the CP the description will be reviewed and revised by staff, with further input from the TBG, before being submitted for IPSASB consideration as one part of the draft CP.)

*Public Policy Objectives*

27. In brief, the primary public policy objective for an ETS is to reduce harmful emissions. That objective could be driven by international pressure, for example, a government's commitments under an international treaty, or local pressure to address environmental damage, global warming and environmental hazards. Where an international commitment applies, this could include specification on how a government will meet its commitment, which could drive its use of an ETS and/or other mechanisms.

28. A secondary policy objective may be to redistribute or share the costs of harmful emissions. Costs that government incur due to emissions include, for example, costs related to

    (a) Damage to property or crops as a result of the possible impacts of significant climate change, such as droughts and floods;

    (b) Health care for illnesses caused by emissions; and,

    (c) New infrastructure to ensure, for example, sufficient water supply for communities.

29. Public policy is also likely to take into account the need to:

    (a) Avoid negative impacts (as far as is possible) on business activity and the economy; and

    (b) Use an economically efficient way to achieve emission reductions.

30. Putting a "price on carbon" through an ETS or carbon tax has become an increasingly common approach in public policy as a way to link the costs of emissions to the sources of emissions, with a view of creating the right incentives on polluters, leading to achievement of the primary objective to reduce emissions. This is succinctly described by the World Bank as follows:

> There are several paths governments can take to price carbon, all leading to the same result. They begin to capture what are known as the external costs of carbon emissions – costs that the public pays for in other ways, such as damage to crops and health care costs from heat waves and droughts or to property from flooding and sea level rise – and tie them to their sources through a price on carbon.
>
> A price on carbon helps shift the burden for the damage back to those who are responsible for it, and who can reduce it. Instead of dictating who should reduce emissions where and how, a carbon price gives an economic signal and polluters decide for themselves whether to discontinue their polluting activity, reduce emissions, or continue polluting and pay for it. In this way, the overall environmental goal is

> achieved in the most flexible and least-cost way to society. The carbon price also stimulates clean technology and market innovation, fuelling new, low-carbon drivers of economic growth.
>
> Source: http://www.worldbank.org/en/programs/pricing-carbon

*Economic Impacts and Concepts of Costs*

31. For the ETS administrator, an ETS is a low–cost intervention by comparison to other interventions, although it has less scope to generate cash flow, compared to a carbon tax. Therefore an ETS generates fewer net economic benefits, when compared to carbon tax, from a simple cash flow perspective. There are different views on the relative efficacy of an ETS in terms of achievement of public policy objectives. Some research indicates that use of an ETS generates higher overall public policy gains—taking into account both the primary objective (reduce emissions) and secondary objectives (e.g. share the costs of emissions while taking into account the need to avoid negative impacts on the economy and an excessive burden on businesses). Based on this research, an ETS generates higher net economic benefits (cash flow and achievement of policy objectives) than other alternatives, as a relatively low cost intervention with high benefits.

32. Charging for EAs can shift costs from the government itself (and therefore from taxpayers as a whole) to emission producers and downstream customers that purchase products whose production caused pollution. Shifting costs onto those that cause pollution can also be viewed as a way to ensure that they have the right economic incentives to act differently and thereby reduce emissions arising from both production and purchase behaviors. By limiting the allowable volume of emissions a government creates scarcity which also makes emission costly. The market value of EAs can be viewed as an indicator of the cost of emissions.

*What does the Market Value for EAs Indicate about the Costs of Emissions?*

33. Governments' practice has been to transfer EAs either for no charge or at a price that is subsidized and well below the market value of EAs. The majority of EAs will be held by participants until the end of the compliance period. The cost of those EAs is likely to have been much lower than the eventual market value of free EAs towards the end of the compliance period. An ETS tends to focus attention on the *difference* between a limit on emissions and actual emissions. That difference tends to drive the cash flow implications for an ETS participant, in terms of selling or purchasing EAs at their market value. The question arises of whether the market value of the relatively few "free EAs" is a good indication of the market value of all EAs, or does it substantially increase the apparent cost of emissions and misrepresent the economic impact of an ETS for participants?

34. IASB staff discussed cost within this context of freely transferred EAs, and a government policy of making emissions costly, as follows:

> …ETS introduced new economic effects around environmental protection measures. Governments recognised that imposing a new cost on what was previously a free activity could be economically damaging, not merely for the individual entities that are subject to the scheme but for a country's economy as a whole. Consequently, when introducing a new ETS, many governments have tried to reduce the short-term impact by providing compensation to entities in the form of allocations of allowances free of charge.
>
> In many cases, the allocation of allowances free of charge negates, for the participant entities, the immediate cost of the scheme being introduced. However, over time, the

volume of free allowances is reduced to incentivise the participants to reduce the overall level of the specified pollutants being emitted.

35. The IASB staff consider that the compensatory nature of the allowances allocated free of charge, together with the interaction of the allowances and the participants' obligation to remit to the government allowances equal to the volume of their pollutant emissions, create a unique economic effect. This economic effect cannot, in the IASB staff's view, be readily addressed using existing Standards. [Paragraphs 13–15, Agenda paper 6A, IASB June 2015 meeting]

*Three Views of Cost*

36. In light of these considerations staff has identified three perspectives on ETS costs. The three cost perspectives are:

*Cost View 1*: The cost of an ETS is low for participants, because it does not require them to (i) pay taxes on emissions (no carbon taxes), or (ii) change their operations in specific costly ways, such as introducing new filters or moving away from use of coal for energy (no command and control). EAs are transferred to participants at zero or minimal cost. (However, an ETS does put pressure on participants to find ways to reduce their emissions. That could cause participants to undertake actions similar in form to either (i) regulated requirements, or (ii) project financing.)

*Cost View 2:* An ETS moves emission–related costs from government to entities that produce emissions and the customers that purchase their products, where the cost–shifting mechanism is the price that an ETS Administrator charges (subsidized or otherwise) for EAs issued. The cash flows generated can be used by the government to address costs arising from pollution (health costs, etc.). Charging for EAs is similar to a one–off tax that occurs when EAs are transferred. (As for *Cost View 1*, there is pressure on participants to find ways to reduce their emissions, which could result in other costs.)

*Cost View 3:* An ETS makes emissions costly when it introduces a limit on emissions. This view suggests that introduction of an ETS has the effect of making all emissions costly. On the one hand the cost of EAs could be viewed as their market value given the applicable supply/demand situation. On the other hand, their cost could be viewed as similar to a carbon tax, which is proportional to the total amount of emissions produced (rather than the excess of emissions over the original issuance of EAs). (As for the first two perspectives, costs also include any charges for the initial transfer of EAs and any costs involved in operational changes or other actions to reduce their emissions or reduce their obligations to submit EAs.)

**Actions Requested:**

2. The IPSASB is asked to:

   (a) Note and provide comment on the Appendix C description of a government's public policy objectives for an ETS; and

   (b) Indicate whether the Appendix C description, including its discussion of different views on costs, should be included in the CP.

**Issue 3: Alternative Accounting Approaches**

37. In June the IPSASB directed staff to identify additional alternatives to the three developed for ETS administrators, with consideration of symmetry and working closely with the IASB. Members noted that the CP should be exploratory and the net should be thrown wide to capture more possibilities, before attempting to narrow down into a few best alternatives. Members suggested that there could, for example, be:

    (a) Creation of contingencies rather than assets and liabilities; and

    (b) An executory aspect to EAs, whereby the discussion of executory contracts in the CP, *Social Benefits*, could apply.

38. This paper identifies five alternative accounting approaches for ETS administrators. The five accounting approaches are:

    Approach 1, *Emission Notes*

    Approach 2, *Emission Licenses*

    Approach 3, *Pollutant Pricing Mechanisms—Rights and Obligations*

    Approach 4, *Emission Limits (Taxes and Contingencies)*

    Approach 5, *Emission Contracts*

*Background to Approaches*

Three Approaches are Same (or Similar) to Three Approaches Discussed in June

39. The first two approaches are the same as the first two approaches that the IPSASB reviewed in June. They have merely been renamed since the IPSASB's June meeting. Approach 1, *Emission Notes*, was called "Approach 1, *Financial Liability*", in June. Approach 2, *Emission Licenses,* was called "Approach 2, *Intangible Asset*".

40. Approach 4, *Emission Limits (Taxes and Contingencies)*, is equivalent to Approach 3, *Revenue*, from June. However, this approach has been revised to include contingencies as another aspect of reporting on EAs and emissions. The recognition of elements is basically restricted to revenue that the administrator receives from cash flows arising from any charges on transfer of the EAs to participants, which is the same recognition approach as that for Approach 3, *Revenue*, in June. (The discussion below also considers sub–options for different timing of revenue recognition, to address the "split asset" accounting approach used for GFS reporting.)

Other Two Approaches: Symmetry with IASB and An "Executory Contracts" Approach

41. Approach 3, *Pollutant Pricing Mechanisms—Rights and Obligations,* is the "other side" (applying symmetry) of the main recognition approach considered by the IASB in November 2014[2] and June 2015.

42. Approach 5, *Emission Contracts,* takes an executory contracts approach, applying ideas discussed in CP, *Social Benefits*.

[2] The main recognition approach considered by the IASB in June 2015 recognized assets for EAs held, a liability for obligations to submit EAs, and a "government grant liability" if EAs were granted. Two of the four accounting approaches—Approach 1 and Approach 2—applied that recognition treatment. (Their measurement was different.)

*Sixth Approach—IASB's Evolving Approach*

43. IPSASB staff notes that the latest IASB approach—Approach 6, *Loan of Emission Allowances,* which is described under Issue 1 above, should be considered by the IPSASB for inclusion in the CP, once that approach has been sufficiently developed and assuming that future IASB discussions indicate that the IASB considers that the approach has merit.

**Evaluation of the Five Approaches**

44. A brief description of each approach is followed by evaluations to support IPSASB members in reaching views on whether, given present information, an approach should be included in the draft CP. These evaluations consider:

    (a) Whether an approach should be included in the CP;

    (b) Symmetry with IASB developments; and,

    (c) Whether the elements recognized meet the Conceptual Framework's requirements of element recognition (element definition and recognition).

*Approach 1, Emission Notes and Approach 2, Emission Licenses*

45. Approach 1 and Approach 2 were considered by the IPSASB at the June meeting. Approach 1, *Emission Notes*, is an approach used in practice by a national government. The New Zealand Government developed this approach through application of IPSAS–similar financial reporting concepts and standards. That same development process identified Approach 2, *Emission Licenses*, as a possible option (although ultimately not used by the New Zealand Government). IPSASB staff considers that this second approach is a viable approach that warrants consideration.

46. In June, some IPSASB members expressed concern at the idea that the CP would include approaches that seemed so different; Approach 1 has the administrator recognizing inventory assets initially and subsequently a liability for future redemption of EA notes when they are issued while Approach 2 has the administrator recognizing an asset which is sold at market values or transferred for nil or minimal amounts. However, IPSASB members also directed staff to consider more approaches and "throw the net wide" rather than attempt, at this stage, to limit the alternatives for consideration. On that basis staff proposes that both of these two approaches should remain as alternatives for discussion in the CP.

*Approach 1, Emission Notes—Description*

47. In Approach 1, *Emission Notes*, EAs are viewed as similar to currency issued and in circulation[3]. The EAs are initially treated as a type of inventory, with their initial value being very low, because inventory is measured at cost of production and those costs are very low.

48. When the administrator issues EAs the administrator recognizes a liability, on the basis that the legislative framework of the ETS requires the administrator to repatriate (or redeem) EAs for their emissions value. (See below for evaluation against the Conceptual Framework's definition and recognition of a liability.) The EAs can be used by entities to meet their emission obligation

[3] This approach treats EAs as similar to currency, but does not argue that EAs are currency, or that they would meet the IPSAS definition of a financial instrument. During development of IFRIC 3, *Emission Rights*, the IASB considered whether EAs meet the IFRS definition of a financial instruments and concluded that they do not. Applying the IPSAS definition, IPSAS staff reached the same conclusion.

(payments denominated in EAs) to the administrator. Like currency, no interest is paid on this liability. However, unlike currency, EAs are likely be repatriated (or redeemed) in full at some stage, although EAs may remain in circulation among participants for long periods of time. With currency, it is highly unlikely that the issuer will ever be paid out the financial liability in full, because there is always going to be a minimum amount of cash required in the financial system.

49. When a government issues currency to a bank, there is usually an exchange of value through consideration. That transaction is similar to an ETS participant acquiring EA's from the administrator at fair value. However, the issuance of EAs free of charge could be viewed as representing a subsidy that the administrator is providing to participants to mitigate the economic consequences that will be associated with emissions. From this perspective the economic impact of EAs transferred would similar to that of a subsidy or grant and the accounting treatment (arguably) should be similar.

50. During the compliance period the administrator accrues emissions levy revenue and recognizes a receivable from the participant through its sovereign power. The receivable reflects the administrator's right to be reimbursed for actual emissions. The timing of revenue recognition will be based on when the activity giving rise to the emissions—and therefore the participant's liability—occurs. (The emissions activity is similar to a taxable event.) If it is not possible to reliably estimate emissions at the 'taxable event' moment, then revenue recognition will be delayed until an emissions return is received and the administrator has assessed the obligation to surrender EAs. In that situation, the actual surrender of EAs to the administrator may occur later.

51. When EAs are surrendered to the administrator, the outstanding sovereign receivable is settled. The EAs operate as an acceptable medium of exchange for settlement of participants' emission obligations. Also, as a result of the EAs being surrendered, the administrator's EA financial liability is extinguished. The extinguishment of the financial liability on surrender of EAs is similar to when a bank surrenders currency to a Central Bank in exchange for other consideration. However, in the case of EAs, the settling of the participant's emission obligation is the consideration received by the participant in exchange for surrendering the EAs.

*Approach 2, Emission Licenses—Description*

52. In Approach 2, *Emission Licenses*, EAs are viewed as similar to government created intangible assets such as permits or licenses[4]. EAs embody rights to undertake economic activity, where a target group (the ETS participants) could potentially benefit from possessing those rights. As for Approach 1, the initial value of the EAs will be close to zero if measured at cost, because production costs will be very low. (The asset definition criteria can be identified: EAs are controlled by the administrator, following a past event related to government (or other administration entity) decisions on timing and volume of EAs available for issue, and are capable of being sold—which means that they can generate future economic benefits. With respect to the recognition criteria of ability to reliably measure and probable resource, EAs can be reliably measured either at their historical cost or market value and, once the administrative

[4] IPSAS 31, *Intangible Assets*, establishes requirements for recognition of internally generated assets. The CP could discuss whether IPSAS 31's recognition criteria and also its measurement approach should be applied to EAs created by the administrator. Staff have not taken that approach here, because EAs are being treated, at this stage of the project, a phenomenon that warrants consideration on its own merits, even though reference can be made to argument by analogy. IASB staff and the IASB have eschewed application of existing IFRSs to this phenomenon.

entity has decided to charge for transfer or EAs, the resource (economic benefits of future cash flows in this case) appears very probable.

53. After creating the EAs, and taking the view, based on the description in the preceding paragraph, that they are assets of the administrator, the administrator then either transfers or sells them to ETS participants. Depending on the measurement basis used and the payment received (which could be somewhere between zero and the market value of the EA), the administrator may report either an expense (loss on transfer), revenue (gain on sale) or no change (transferred at value). There are two differences for this step between Approach 1 and Approach 2:

    (a) Approach 1 recognizes a liability for EAs at this point, while Approach 2 will no longer have an EA asset, so nothing recognized other than the gain/(loss) on transfer; and,

    (b) The liability recognized under Approach 1 will then remain in the administrator's books, waiting to be extinguished when participants submit their EAs. Under Approach 2 the administrator ultimately receives EAs to cover participants' obligations—see below.

54. As participants emit pollutants, they owe more and more EAs to the administrator. The administrator recognizes revenue and assets (EAs to which the administrator has rights). At the end of the compliance period, participants submit (or redeem) the necessary number of EAs, which then are held by the administrator. At this point the value of EAs is extinguished, as though the end of the compliance period acts as an immediate impairment equivalent to their total value.(As discussed below, this raises the question of whether the right to receive EAs confers economic benefits to the administrator, since ultimately the EAs will be extinguished when received back.)

*Symmetry applied to Approach 1 and Approach 2*

55. Applying symmetry these two approaches are indistinguishable when considered from the participant's perspective. Under each approach the participant would initially recognize an asset equivalent to the value of the EAs received, where those EAs could either be received as a government grant (transfer at nil or subsidized price) or purchased from the administrator. The participant will recognize revenue (a "day 1 gain") equivalent to any excess of EA book value (in the participant's books) over actual purchase price[5]. As noted under Issue 1 above, IASB constituents are opposed to recognition of a day 1 gain.

56. As actual emissions occur, a participant will recognize a liability (and expense) to submit EAs. The liability is discharged when the participant returns EAs to the administrator.

*Application of the Conceptual Framework*

57. Application of the Conceptual Framework to these two approaches, and also to Approach 3 below, is discussed in more detail below. In brief, it is not clear that all of the assets and liabilities that would be recognized under these two approaches meet the definition criteria for assets and for liabilities in the Conceptual Framework.

[5] The size of this day 1 gain will depend on the measurement approach used. If the participant uses market value to measure EAs transferred (granted) for nil value, then the day 1 gain would be significant. If a cost measurement approach is used, then no gain would be recognized. In June the IASB tentatively rejected an approach that applied this pattern of recognition and used fair value measurement for transferred EAs.

**Approach 3, *Pollutant Pricing Mechanisms—Rights and Obligations***

58. Approach 3, *Pollutant Mechanism—Rights and Obligations,* (Approach 3) is based on what was the IASB's main approach to participants' ETS accounting at its June meeting discussion. The IASB discussed four approaches at its June meeting. The first two approaches (Approach 1, *Gross–Liability (A)* and Approach 1, *Gross–Liability (B)*) were the same with respect to recognition, but slightly different with respect to measurement. This paper's Approach 3 takes the same recognition approach as those two IASB approaches, but describes what this might mean for the administrator.

*Recognition by the Participant*

59. This approach has been developed by applying symmetry to the participant's accounting, which is described in this subsection.

60. For participants the following elements are recognized:

    (i) Asset (EAs) recognized by participants, when the EAs are transferred, but no revenue is recognized initially.

    (ii) Liability recognized by participants when EAs transferred. The liability is a "government grant received in advance" liability. (The size of this liability and related revenue depends on how the EAs are measured.)

    (iii) Revenue (from government grant) recognized on a systematic basis over the period to which the EAs apply, as the original liability decreases over the same period. (Revenue is only recognized if the EAs involve a government grant aspect i.e. they are transferred at nil cost or for less than market price. The difference between EA measurement by the participant and the amount paid by the participant is treated as revenue, but initially matched by the "government grant" liability.)

    (iv) Liability recognized by participants as emissions occur—measured at market value of EAs required[6].

61. This approach means that an ETS participant does not recognize a day 1 gain when the EAs are transferred to the participant for no charge. (As noted under Issue 1 this is an important consideration for IASB stakeholders. They consider that a gain does not correctly conveying the economic substance of the transfer of EAs.) By recognizing a "government grant liability" revenue is gradually recognized over the period. At the same time, the "government grant liability" reduces. The participant will be recognizing expenses due to actual emissions at the same time, so that there is very little impact on the bottom line (profit/loss).

*Symmetry—Implications for Administrator*

<u>Step 1: Transfer of EAs:</u>

62. Applying symmetry the administrator recognizes an asset equivalent to the participant's government grant liability. It is difficult to explain the significance of the "government grant" asset for the administrator. The administrator does not have the right to receive anything. There is no cash flow or service performance involved. There could be a performance obligation on the participant's side, such that the participant earns the right to the government grant during

[6] Approach 2, Gross–Liability (B) measurement the emissions liability in terms of the value of EAs held i.e. their fair value when originally transferred. If more EAs need to be purchased then the deficit is measured at the current market value of EAs.

the compliance period. Then the administrator has an asset which reflects a right to receive some type of performance from the ETS participant.

63. Another perspective is that the administrator continues to recognize an asset for the EAs, as though control had not "really" been transferred to the participants[7]. It may also be possible to treat this amount as an "other resource", applying paragraph 5.4 and 5.27 of the Conceptual Framework, which allows recognition of items that do not meet the definition and recognition criteria for assets or liabilities. This would impact on "net financial position" and also have an effect on revenue (expenses).)

64. Where the administrator recognizes, on transfer of the EAs, an asset equivalent to the participants "government grant liability", the administrator also appears to need to recognize an equivalent credit. Both elements will decrease during the compliance period as the participant recognizes grant revenue and its "government grant liability" decreases.

Step 2 Government grant liability reduces:

65. The administrator would then reduce the asset over time (and recognize an expense) as the participant recognized revenue from the government grant.

Step 3: Emissions occur:

66. At the same time as Step 2, the administrator recognizes a right to receive EAs and related revenue as the participant emits. (The participant recognizes an expense and obligation to submit EAs.)

67. The size of the asset (liability) and the subsequent expense (revenue) for the administrator (participant) will depend on how these are measured.

*Application of the Conceptual Framework*

68. As for the first two approaches, it is not clear that all the assets and liabilities recognized under this approach would meet the definition criteria for assets and for liabilities in the Conceptual Framework. This is discussed in more detail below.

**Conceptual Framework Applied to Approaches 1, 2 and 3**

*Are Emission Allowances Assets for the Participant?*

69. The IASB's past discussions have supported the view that, for participants, EAs are assets. For example, the IASB staff paper from June explained that:

> The staff think that there is general acceptance that emissions allowances meet the definition of an asset in the IASB's Conceptual Framework. This is because:
>
> (a) they are economic resources;
>
> (b) they are controlled by the entity, and
>
> (c) they are expected to result in the economic benefits flowing to the entity because they can either be sold or be used to settle the entity's obligation to submit a determinable number of allowances to the scheme administrator at the end of the compliance period.
>
> [Paragraph 18, Agenda paper 6A, IASB June 2015 meeting]

[7] The idea that control over the EAs has not been transferred is not really consistent with the IASB approach and is not fully symmetrical. The IASB approach has the participant recognizing, for the government grant liability, only the *difference* between actual transfer costs and the EAs' market value.

70. However, as discussed under Issue 1 of this paper, IASB staff are taking a wider view, which includes treating EAs as liabilities, from the participants' perspective. The same June IASB paper noted that:

> Although there seems to be general acceptance that the emissions allowances are assets, questions arise over the nature of the asset. This is partly because of the different ways in which the entity can use them to obtain economic benefits. This has resulted in different parties suggesting that the allowances have characteristics of different types of assets. Consequently, different accounting treatments that are used in practice tend to reflect different views about the nature of the allowances, based on how the allowances are expected to be used. This has also led to some 'mixed model' approaches in which an entity's allowances are accounted for in different ways, depending on which use they are expected to be put, despite the allowances being homogeneous in nature and fully interchangeable.
>
> [Paragraph 19, Agenda paper 6A, IASB June 2015 meeting]

71. The special nature of EAs was further discussed in paragraphs 25 to 29 of the same paper:

> 25. This difficulty in classifying allowances in the same way as other intangible assets was highlighted in a case heard in the High Court in England and Wales in 2012. In that case, the judge, Mr. Stephen Morris QC, considered the nature of European Union Allowance (EUAs) in law as property[8].There was no dispute between the parties that EUAs constitute property as a matter of law. What was at issue, however, was their precise nature and characterisation as property, because the classification could have an effect on the nature of the legal remedies available.
>
> 26. Mr Morris noted that 'At the heart of the legal difficulties to which this case gives, or may give, rise is the somewhat novel nature of a European Union Allowance (EUA). This novelty arises from two particular features: the first is that an EUA is a creature of European legislation and the second is that an EUA exists only in electronic form'.
>
> 27. Consequently, the case does not conclude on the precise category of asset to which EUAs should be classified, but Mr Morris observed;
>
> > 'As a matter of substance, [an EUA] does not give the holder a "right" to emit CO2 in this sense. Rather it represents at most a permission (. . .) or an exemption from a prohibition or fine. But for the entitlement to the EUA, the holder would either be prohibited from emitting CO2 beyond a certain level or at least would be required to pay a fine if he did so. In this way, the holding of the EUA exempts the holder from the payment of that fine.
> >
> > An EUA is a creature of the ETS. As a matter of form an EUA exists only in electronic form. It is transferable automatically by electronic means within the registry system. Under the ETS legislation it is transferable under the terms of the ETS Directive. It has economic value, first because it can be used to avoid a fine, and secondly, because there is an active market for trade in EUAs.'
>
> 28. Although the judgement in Armstrong DLW GmbH v Winnington Networks Ltd [2012] concluded that EUAs could be considered to be intangible assets, it highlighted that they do not have the typical characteristics normally associated with other intangible assets[9]. As noted by Mr Morris QC, the EUAs do not give the entity a right to emit greenhouse gases (GHGs).
>
> 29. This difficulty in determining the precise nature of the EUA and how to classify it as an asset is reflected in the different accounting treatments that are seen in commonly

[8] Armstrong DLW GmbH v Winnington Networks Ltd [2012] EWHC 10 (Ch) (11 January 2012

[9] IAS 38 *Intangible Assets* defines an intangible asset as 'an identifiable non-monetary asset without physical substance'.

used accounting treatments. The most common classification is as an intangible asset, but others classify them as inventory.

*Are Emission Allowances, before Issuance, Assets for the Administrator?*

72. The Conceptual Framework defines an asset as "[a] resource presently controlled by the entity as a result of a past event." When the ETS administrator establishes an ETS and creates EAs it seems fairly straightforward to decide that EAs are controlled by the administrator as a result of a past event

73. The Conceptual Framework describes a resource as "…an item with service potential or the ability to generate economic benefits". The Conceptual Framework further notes that economic benefits can arise from "the direct exchange of an asset for cash or other resources". It appears that EAs have this characteristics of a "resource". Although an administrator may decide to transfer EAs free of charge, the ability to charge for EAs exists.

74. Under Approach 1 the recognized asset (for EAs created) is viewed as inventory, similar to banknotes or other currency, measured at cost of production. Under Approach 2 an intangible asset has been created, with measurement at either cost or current market value. Approach 3 begins with the IASB approach then applies symmetry to conclude that there should be an asset on the administrator's side, without being conclusive about the type of asset.

*Does Transfer of EAs Create a Liability for the Administrator? (Approach 1)*

75. Under Approach 1, *Emission Notes*, when EAs are first transferred to the participants the administrator recognizes a liability that is equivalent to the value of EAs transferred. The idea is that the administrator is required to repatriate (or redeem) EAs for their emissions value. The EAs can be used by participants to meet their emission obligation (payments denominated in EAs) to the administrator.

76. The Conceptual Framework defines a liability as "[a] present obligation of the entity for an outflow of resources that results from a past event." The Conceptual Framework defines a present obligation as "a legally binding obligation (legal obligation) or non-legally binding obligation, which an entity has little or no realistic alternative to avoid.' An ETS obliges the administrator to accept EAs back from participants. Arguably, the participants are redeeming a form of currency (the EAs) by using them to pay for their emissions. However, there are two arguments against recognizing a liability in the administrator's financial statements when EA are transferred. First, the participants has no obligation, at this point in time, to submit EAs, because the participant has not yet emitted pollutants. The necessary "past event" has not occurred. Second, it is difficult to see how the administrator's obligation to accept EAs involves the administrator in an "outflow of resources". (Issued currency appears to raise similar issues for the issuing government.)

*Does Transfer of EAs Create a "Government Grant Asset" for the Administrator? (Approach 3)*

77. If symmetry were to be applied, and working backwards from the participants' recognition of a "government grant liability", approach 3 would result in the administrator recognizing a "government grant asset" that does not appear under any of the other approaches. That asset is equivalent to the value of the EAs transferred to the participant free of charge. However, the Conceptual Framework does not support existence of an equivalent asset for the administrator. There does not appear to be any resource presently controlled by the entity, after transfer of the EAs. There is no item with service potential or the ability to generate future economic benefits.

Therefore Approach 3 involves recognition of an administrator's asset—the government grant asset—that does not appear to meet the Conceptual Framework's definition of an asset.

*During the Compliance Period: Do Participant Emissions Result in an Asset for the Administrator?*

78. After EA issuance the administrator expects eventually to receive EAs back, but does not appear to control EAs that have been transferred to participants.

79. As participants emit pollutants during the compliance period, an administrator has the right to receive EAs that will equal the volume of emissions. Again it seems fairly straightforward to decide that the administrator presently controls that right (the right to receive EAs) as a result of a past event. The past event is participants' emissions, while present control is conferred through ETS legislation, which obliges participants to submit EAs at the end of the period. Submission of EAs does not happen immediately, but there is no way for participants to avoid it, other than non–compliance and consequential fines and other penalties.

80. As noted above, it is not clear that a "right to receive EAs" is a resource (and therefore an asset) for the administrator. It does not appear to have either service potential or the ability to generate economic benefits. If that is the case, and the administrator should not recognize an asset because this right does not meet the definition of an asset, then there will be a lack of symmetry between participant and administrator when accounting for the same event i.e. production of emissions. As the participant produces emissions it will have an increasing obligation, which meets the definition of a liability, to submit EAs to the administrator. At the same time the administrator will have an increasing right to receive EAs, but that right would not meet the definition of an asset.

Administrator's Ability to Use Surplus EAs to Generate Economic Benefits

81. There are situations where a government is able to use "surplus EAs" to generate economic benefits in the form of cash flows. This situation arises when a government is part of a larger ETS, and effectively acts as both an administrator for the national scheme and an ETS participant (at least with respect to some aspects of that role) for the larger, international scheme. For example, during the first Kyoto compliance period the New Zealand administrator received Kyoto EAs (international EAs) from New Zealand ETS participants. The participants had purchased the Kyoto EAs internationally, and then used them to cover their emissions. The New Zealand Government ended the period with a surplus of Kyoto EAs, which could be sold onto the international market for cash. National governments in the EU–ETS can be in the same situation of having a surplus of EU–ETS EAs, which can be sold to generate cash flows.

82. This situation also raises the possibility that a government may need to purchase EAs from the international market, in order to cover a nation–wide deficit.

**Approach 4, *Emission Limits (Taxes and Contingencies)***

83. Approach 4, *Emission Limits (Taxes and Contingencies)* (Approach 4) focuses on "emissions within the ETS environment", where the significance of EAs and emissions is their implications for assessing the probability that a participant may need to recognize either a liability (an obligation to use cash flows to purchase EAs, as a result of a probable excess of emissions over EAs) or an asset (the ability to generate cash flows from selling EAs, as a result of a probable excess of EAs over emissions).

84. From the participant's perspective:

Step 1: Receipt of EAs

(i) Recognize an expense for any payment for allowances (if EAs are purchased initially) and treat the expense as a government charge (a type of tax). (The timing of expense recognition could be either immediately on payment or spread over the compliance period as the participant emits. The second approach would be consistent with the idea the "tax" relates to the production of emissions.)

(ii) Disclose either a contingent asset or a contingent liability based on assessment of which is more likely. Provide note disclosures on the participant entity's assessment of its likely emissions and its holding of allowances to explain this contingency[10].

Step 2: During the compliance period

(iii) Reassess the disclosure based on the impact of actual emissions on likelihood of cash outflows or cash inflows.

(iv) No liability arising from emissions is recognized, unless an entity's emissions appear likely to result in a need either to purchase more EAs or pay a fine. (Similarly, no asset is recognized unless it becomes probable that, at the end of the period, EAs will be in excess of emissions.)

*Symmetry—Implications for Administrator*

85. When viewed from the administrator's side this approach is the same as the Old Approach 3, *Revenue*. The administrator only recognizes revenue to the extent that cash is generated, which will be the case if the administrator auctions the EAs or transfers them to participants at a non-zero price. (At the same time the participant recognizes an expense, which represents taxes paid.) It is not clear that application of symmetry necessarily would require the administrator to disclose a contingent asset when participants disclose contingent liabilities and vice versa. If the participant must pay a fine at the end of the period then the administrator will recognize a right to receive revenue from a fine.

GFS Split Asset Approach to Revenue Recognition

86. The statistical community's "split asset" approach[11] could be considered a sub–option of this approach because, from the administrator's perspective, it focuses on revenue narrowly defined as equivalent to cash received when EAs are transferred or sold to participants. However, the revenue recognition timing is not when the EAs are transferred. Under the split asset approach, cash received by the administrator is treated as a prepayment of tax revenue, and a prepayment liability is recognized. Tax revenues are booked later when the permits are surrendered.

*Evaluation of Approach 4, Emission Limits (Taxes and Contingencies)*

87. Approach 4 takes a very narrow view with respect to recognition of assets and liabilities. By recognizing assets and revenue only to the extent that cash is generated on transfer (or sale), the Conceptual Framework requirements for recognition of these elements are definitely met. Cash received (or the right to receive such cash if the transaction initially generates an

[10] Measurement of the contingency could, for example, be in terms of the market value of the expected deficit or surplus of emissions (measured with respect to EAs' market value) over actual holdings of EAs.

[11] The approach is called "split asset," because EAs are conceived as consisting of two types of asset: (a) a financial asset for the cash auction proceeds (prepayment of tax), for which the value is offset by a liability; and (b) a non-financial (intangible) asset for the changes in market value of permits after issue, for which the value disappears on surrender.

accounts receivable) represents a resource which is controlled by the administrator, after a past event (the transfer) has occurred and the value can be measured reliably.

88. The question that arises for this approach is whether it is too narrow, and fails to recognize other elements (for example, those arising from related obligations) or fails to fully recognize the full value of the transaction. If the Conceptual Framework arguments in favor of wider recognition of elements—which are described above for the first three approaches—are accepted, then Approach 4's very limited recognition of elements will be viewed as inadequate.

89. The main difficulty with Approach 4 is the "asset–like nature" of EAs. From the participants' perspective EAs appear to be assets which should be measured appropriately and recognized. EAs can be traded, they can be used to generate cash flows if necessary. There appears to be scope for the administrator to at least recognize the EAs that it holds initially, before transfer or sale.

90. An argument in favor of this approach is, as previously discussed in the June IPSASB paper, that it is better aligned with the public policy aims of an ETS. An ETS aims to change the environment within which emissions occur. An ETS does not introduce costly emissions per se. (By contrast, a tax on emissions makes all emissions costly.) An ETS introduces a cap on emissions, so that emissions become limited or "scarce". However, as discussed under Issue 1, it is possible to take a broader view of costs imposed by an ETS, such that the costs could apply to emissions in similar fashion to costs arising from a carbon tax or the economic costs of the right to emit, as indicated by the market value of such rights (the EAs).

### ***Approach 5,*** **Emission Contracts**

91. At the June meeting there was a suggestion that it might be possible to apply a similar approach to the "executory contract" approach in the recently issued IPSASB Consultation Paper, *Recognition and Measurement of Social Benefits* to accounting for ETS involvement. Such an approach would mean that participants would only recognize ETS obligations upon non-performance of one party to the contract". Commitments would exist initially. Then "performance" would trigger recognition of any assets or liabilities arising from the ETS.

92. For an ETS the usual view is that participants have an obligation to the administrator, so that a due and payable approach would consider when the participant has an obligation, at which point the administrator would have a right to receive something. (As previously mentioned, EAs may not represent assets to the administrator, applying the Conceptual Framework, at any point in the series of events that are subsequent to issuance and are up to and including participants' submission of EAs back to the administrator.)

93. Staff struggled to apply the concept of an executory contact to this situation. The two explanations provided below are provided to assist IPSASB members in considering whether this approach is worth developing further, for inclusion in the CP.

*What would "performance" mean in this context?*

First Explanation

94. The administrator undertakes steps to protect the environment, reduce the effects of climate change etc. to maintain suitable conditions for the operation of businesses. In response to this, the participant agrees to keep emission levels within the overall cap set by the administrator for the period.

95. Both parties perform over the period (assume equally), and performance is recognized when due and payable. For the administrator, performance is represented, arguably, by government action on climate change in whatever form.

96. For the participant, there would be a liability for EAs as they become due and payable. Arguably, if the EAs are issued for no cost, then no expense should be recognized, and expenses are only recognized for purchases above the original EA allocation (which would be a breach of social contract). Gains would be recognized if EAs are able to be sold, because performance has exceeded the social contract. If the participant must pay for EAs, then arguably payment can be treated as "in–advance" so that the participants would recognize an EA asset on initial purchase, and amortize as expense when due and payable.

97. Symmetry would suggest that the administrator should recognize revenue as the participant performs, with the result that any receipts on sale of EAs are revenue in advance (recognized as liability), and amortized as performance occurs.

Second Explanation

98. When the participant accepts EAs that represents a commitment by the participant to support emission reductions. At the same time the administrator commits to accept EAs in exchange for the participant's total EA obligation as of the end of the compliance period. Neither party to the transaction recognizes assets or liabilities.

99. During the compliance period actual performance remains unclear so that no liability is recognized by the participant. Nothing is "due and payable".

100. At the end of the compliance period participants will submit sufficient EAs to cover their emissions, using the EAs that they hold. At this point any obligation by the participant becomes clear in terms of a deficit of EAs to cover all emissions. The obligation is equivalent to the remaining amount of EAs due, which the participant will need to purchase and submit. The participant has no obligation if emissions are less than the EAs held. The surplus of EAs represents an asset at this point, which can be sold and generate cash flows.

**Actions Requested:**

3. The IPSASB is asked to indicate which approaches should be included in the first draft of the CP, including whether the following should be included:

   (a) All five administrator accounting approaches described above; and

   (b) A sixth approach—Approach 6, *Loan of Emission Allowances*, if further consideration by IASB staff and the IASB indicates support for the participants' side of this potential approach.

**Next steps:**

101. Staff will provide a fourth issues paper and a draft of the CP to the IPSASB's December 2015 meeting.

## APPENDIX A: IASB MEETINGS—EMISSIONS TRADING SCHEMES

As of August 31, 2015

### Introduction

A1. This appendix provides a list of those International Accounting Standards Board (IASB) meetings that have involved discussion on the IASB's Emissions Trading Schemes (ETSs) project, since it restarted in September 2014.

A2. For a full understanding of the papers presented, IASB discussions and the ETS related meeting outcomes please refer to the relevant IASB papers. For each meeting below there is a link to the IASB agenda papers, where the audio discussion is also available. Meeting updates are available from: www.ifrs.org/Updates/IASB-Updates/Pages/IASB-Updates.aspx. Meeting agenda items can be accessed from the list of public meetings: http://www.ifrs.org/Meetings/Pages/Meetings-Page.aspx

### June 2015

A3. ETS issues were discussed at the IASB's June meeting. No decisions were made. Next steps were for IASB staff to provide more detail on ETSs world–wide and continue consideration of alternative accounting approaches. (This project was not discussed at the IASB's July and September meetings. The next IASB discussion is expected to occur at the IASB's October meeting.)

### February–May 2015

A4. The ETS project was not discussed at the IASB's February, March, April and May meetings.

### January 2015

A5. Agenda paper available at: http://www.ifrs.org/Meetings/Pages/IASB-Meeting-January-2015.aspx.

A6. The IASB considered staff recommendations on:

(a) Scope of the project (and related name change);

(b) Approach to the project; and

(c) Direction of the project.

A7. IASB members supported the staff's recommendations that:

*Scope*: The scope of the project should be set broadly to encompass:

(i) A variety of schemes that involve the issue of allowances for emission reduction and absorption projects, as well as ETS, and

(ii) Accounting by emitters, traders and entities that carryout projects to reduce or absorb emissions.

*Project name*: The name of the project should be changed to "Emissions Management Schemes"

*Approach*: Staff should:

(i) Take a "fresh start" approach to the project, and

(ii) Work collaboratively with other standard setters during the research phase.

*Direction of project*: Staff should develop a discussion paper which outlines:

- The common characteristics of a wider variety of schemes, the accounting issues raised and the possible accounting or approaches that could provide a faithful presentation of the overall effects of the schemes identified;
- The approach should not be restricted to identifying separate assets and liabilities but also look at the relationships between rights and obligations; and
- The IASB's developing Conceptual Framework should be the primary source for development of accounting approaches rather than existing Standards.

**November 2014**

A8. Agenda papers available at: http://www.ifrs.org/Meetings/Pages/IASB-Nov-14.aspx.

A9. First IASB meeting to discuss ETS issues since the project's restart in September 2014. This was an education session. No decisions were made.

A10. Staff provided the IASB with background information about the type of schemes in operation and related accounting issues. Two common types of ETSs were described: 'cap and trade,' and 'baseline and credit' schemes. Staff research shows that there are diverse accounting approaches in use today.

## APPENDIX B: FURTHER INFORMATION ON LATEST IASB ACCOUNTING APPROACH

B1. This appendix provides a more detailed description of a new accounting alternative, which IASB staff are considering, for participants' involvement with an ETS. IPSASB staff have named this approach "Approach 6, *Loan of Emission Allowances*". The description below is based on email correspondence and teleconference descriptions between IPSASB staff and IASB staff. The approach may have been developed further since those communications, which occurred during August. When last discussed with the IASB staff the next steps for this approach were described as:

(a) Further discussion within the IASB technical department, including discussions with the IASB Conceptual Framework team;

(b) Presentation of the approach to the Accounting Standards Advisory Forum, to solicit review and comment; and

(c) Discussion of Approach 6 with the IASB at its October meeting, assuming that earlier discussions supported this approach as a reasonable accounting alternative.

### Approach 6, *Loan of Emission Allowances*

B2. This approach treats EAs that have been transferred to participants for free as though they are a loan, which will need to be paid back. The number (or value) of EAs transferred is roughly equivalent to the number (and value) of EAs that will need to returned to the administrator at the end of the compliance period. It is unlikely that the participant will be able to keep the EAs. Because they must be returned at the end of the compliance period, there is a liability. Applying the IASB's proposed definition of a liability[12], the transfer of EAs has the following liability–creating characteristics:

(a) A present obligation;

(b) Transfer of economic benefits (i.e. the EAs); and,

(c) No practical ability to avoid; and/or, the entity has either received the benefits or that activities have already taken place.

*Participant's Accounting for Approach 6, Loan of Emission Allowances*

B3. Where a participant receives a free allocation of EAs, worth CU1,000, from the administrator, the accounting entries would be:

Dr EAs 1,000CU

Cr Loan 1,000CU

B4. The EAs and the corresponding liability would be valued initially at fair value. On each reporting date the EA assets and the loan would be revalued to fair value as of that date.

B5. Actual emissions during the compliance period would not result in recognition of either a liability or expense, because they would merely further confirm the participant's original obligation to submit EAs. That original obligation was foreseeable at the beginning of the period, because the amount of EAs "loaned" to the participant has been established, by the administrator, as the

[12] The liability definition is based on that in the IASB's ED (ED/2015/3), *Conceptual Framework for Financial Reporting*, issued in May 2015.

amount necessary to cover the participant's emissions during the period, assuming that the participant is able to reach the usually lower level of emissions, when compared to previous years' averages, established by the administrator.

B6. At the end of the period, when EAs must be submitted by the participant, they are used to "repay the loan" and the accounting entries are:

Dr Loan 1,200CU

Cr EAs 1,200CU

B7. The higher value of 1,200CU compared to the original entry of 1,000CU reflects the idea that the asset and loan are both revalued to fair value during the period. Each is expressed in terms of "number of EAs", so that the loan value will always be equivalent to the matching asset value. This example assumes that the fair value of EAs became higher during the period, although the actual situation may also be the opposite.

*Administrator's Accounting through Symmetry—Approach 6, Loan of Emission Allowances*

B8. The original entry, for the administrator's creation of this asset, would be:

DR EAs 1,000CU

CR Gain on creation of EAs 1,000CU

B9. Here, "fair value" measurement has been used, which is a symmetrical measurement for the IASB approach on which this is based. However, it is an open point whether market value would be the appropriate measurement basis, given the nature of EAs as internally created intangible assets (from the administrator's perspective)[13].

B10. Then the accounting entries for the administrator on transfer to ETS participants would be:

Dr Right to receive EAs 1,000CU

Cr EAs 1,000CU

B11. These two entries are derived by applying symmetry. The reduction (credit) in the EAs asset account is straightforward, because the EAs have been transferred to the participant and the administrator has lost control. However, application of the Conceptual Framework's definition of an asset suggests that the "right to receive EAs" is not an asset. From the administrator's perspective the "right to receive EAs" asset appears conditional on a future event, i.e. actual emissions on the part of the participant, whereby the participant becomes obliged to submit EAs. (A second issue is whether EAs generate economic benefits or service potential for the administrator.)

B12. During the compliance period there are no changes to the amount recognized, except for their revaluation to fair value at each reporting date. (An upwards revaluation would involve a debit to the "right to receive EAs asset account", and a credit to either a revaluation reserve or to gain on EAs.) When the participant submits their EAs at the end of the compliance period, taking into account the same increase in fair value noted above, the entries will be:

[13] Where a national ETS links into an international ETS, the national government may purchase EAs on the international market, at which point their measurement could relate to the purchase price and the purchase EAs do not fall into the category of internally generated intangible assets, from the national administrator's perspective.

Dr EAs 1,200CU

Cr Right to receive EAs 1,200CU

B13. So the "right to receive EAs" is extinguished and the administrator now holds the actual EAs.

*Approach 6—Other Issues*

B14. This approach raises the following questions:

1. What happens if the participant expects to emit more emissions (or less) than the amount covered by the original grant of EAs?
2. What happens if the participant begins to trade in EAs?
3. How (and where) should the elements and their related value changes be presented?

B15. For question (1) IASB staff's preliminary thinking is that the participant will need to report a liability and an expense (or, if less emissions are expected then, presumably, an asset and revenue). This raises two further questions:

(a) When should the liability and expense be recognized?

(b) Should the liability be amortized over the whole compliance period, on the basis that there is an expectation or probability at the start of the period that there will be excess emissions? Or is there some point within the period where either (a) the probability of an excess increases to the point where a liability should be recognized, or (b) actual emissions actually exceed the limit for the whole period, where the limit is established at the start of the period, in terms of total EAs received from the administrator?

B16. For question (2) IASB staff's preliminary thinking is that trading would mean that the normal accounting for tradable items will be applied, showing gains and losses, and measuring at fair value and cost of purchase. Individual participants' trading of EAs does not impact on the administrator's financial statements, because the administrator reports an asset representing all EAs issued, regardless of which participants hold the EAs, or whether EAs are held by traders. The only impact for the administrator will be changes in EAs' market value evident through trading.

B17. For question (3) IASB staff's preliminary thinking is that presentation will be "linked", which would mean that the asset and liability are included "on the same side" of the balance sheet, so that the two amounts are (in effect) netted off within either total assets or total liabilities.

*Approach 6—Concerns Addressed through this Approach and Underlying Principles*

B18. Given the IASB staff's preliminary thoughts on this approach, it appears that Approach 6 could deliver the following benefits, from the ETS participant's perspective:

(a) Support for the view that there is (or should be) no economic effect for participants, if they receive free allowances and stay within the emissions limit set by free allowances, such that there are no cash flow effects throughout the compliance period i.e. no cash flow impact due to the ETS. Since there is no economic effect, the financial reporting should show no effect i.e. no impact on profit and loss and no impact on the bottom line.

(b) Avoidance of a "day 1 gain" when EAs are provided free to the participant.

(c) No impact on profit and loss, unless there is an excess of actual emissions (or, alternatively, actual emissions are less than the limit set by EAs transferred), which prevents artificial volatility due to EAs and emissions, and means that there is minimal

impact on the bottom line. (This assumes that a linked presentation of the asset and liability is used, so that a change in the value of one will be netted off against the value of the other. See paragraph B17 above.)

(d) No dependence on "management intent", which is a problem with some other proposed ETS accounting approaches. This approach would apply without reference to the participant's views about either holding EAs to the end of the period or trading them. (The accounting treatment changes if an ETS participants begins to trade its EAs, which could seem inconsistent with the view that there is no dependence on management intent. Arguably, there is still an objective way (independent of intent) to reclassify the accounting, because trading has begun and is evident through actions undertaken.)

(e) The approach will reflect increased risk, if a participant does decide to trade its EAs.

## APPENDIX C: PUBLIC POLICY OBJECTIVES, ALTERNATIVE INTERVENTIONS AND ECONOMIC IMPACT

### Introduction

C1. This appendix provides a description of governments' policy public policy objectives for Emissions Trading Scheme (ETSs), explaining that the primary objective is to reduce emissions. That objective arises within the context of international pressure (for example, treaty commitments such as Kyoto) and local pressure to address environmental damage, global warming and environmental hazards.

C2. Table 1 shows the four main types of intervention used by government to achieve this primary public policy objective. The different economic impacts of these are described later in this appendix.

**Table 1: Types of Emission Reduction Interventions**

<table>
<tr><th colspan="2">Market Mechanisms</th><th colspan="3">Non Market Mechanisms</th></tr>
<tr><th>Over–the–Counter Market</th><th>Organized Market</th><th>Carbon taxes</th><th>Command and control schemes</th><th>Results-based financing</th></tr>
<tr><td>EAs exchanged between States (e.g. ESD[14] in the EU)</td><td>• Primary market: e.g. auctions on exchange platforms (EU ETS : ICE/EEX) between States/EU and participants;<br>• Secondary market: between participants/States where all types of allowances (whether initially allocated for free or auctioned) are tradable.</td><td>Mandatory tax that applies to actual emissions<br><br>Increases the cost of emissions.<br>Encourages entities to reduce & innovate</td><td>Regulations set to address pollution such as imposing the use of filters in polluting industries, etc.<br><br>Regulation through legislation, irrespective of level of emissions</td><td>E.g. contributors of finance receive EAs in exchange. These may be remitted to the ETS administrator instead of EAs issued by that ETS.</td></tr>
<tr><td colspan="2">Applies to both types of market mechanism:<br>• The regulator/administrator sets a limit (cap) on the total level of covered GHG emissions;<br>• EAs must be submitted to cover actual emissions;<br>• Unused EAs are tradable; setting a price on GHGs, which acts as an economic incentive to reduce GHGs, including incentive to innovate.</td><td></td><td></td><td></td></tr>
</table>

C3. The design of an ETS (or other government intervention to achieve the same public policy aims) is likely to take into account many different factors, including factors specific to the particular jurisdiction. The discussion below does not convey the complexity of the task involved in developing an ETS, such that it will be effective in its policy objectives, while minimizing or avoiding any unintended negative impacts on society.

[14] See Decision No.406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their GHG emissions to meet the European Community's GHG emission reduction commitments up to 2020.

## Public Policy Objectives

*International Context, Treaty Commitments and International Cooperation*

Changing Situations at International and National Level

C4. Where a national government has signed up to an international agreement, the requirements of that agreement will be a major factor in its policy decisions with respect to emissions.

C5. The area of world–wide international agreements impacting on emissions and pollution generally is in a state of flux. The situation appears very likely to change over the next two years and the details of different arrangements and how jurisdictions will react in negotiations are hard to predict. The discussion below highlights the situation that has applied over the last ten to fifteen years, where a major consideration has been the United Nations Framework Convention on Climate Change (UNFCCC), which can be described as a "top down" approach to address emissions and climate change. At the same time, local and national initiatives have become increasingly important, even as the top down approach exemplified by The Kyoto Protocol has encountered difficulties.

C6. Despite links between the EU–ETS and the Kyoto Protocol, the EU–ETS is a stand–alone scheme, which does not depend on the Kyoto Protocol for its continued existence. EU Member States will continue to form their public policy within the context of the ET ETS, which applies to them through EU legislation.

International Arrangements and Government's Public Policy Objectives

C7. A government's policy on emissions intervention may arise due to international pressure, expressed through an international treaty or other mechanisms for international agreement. In that situation compliance with the international agreement is likely to be a major public policy objective for the national government.

C8. The Kyoto Protocol, for example, is an international agreement linked to the UNFCCC, which commits its Parties by setting "internationally binding" emission reduction targets. The first commitment period was 2008—2012. Countries that signed up to the Kyoto Protocol—including, for example, European Union countries, Switzerland, Australia and New Zealand—were bound by its requirements, although there was flexibility in how they achieved their emission limits. In effect, the Kyoto Protocol established a type of ETS at the international level.

C9. Anticipating the first Kyoto compliance period, EU governments established the EU–ETS, which also provides some flexibility in how a country achieves their emission targets. Enforcement of the EU–ETS relates to the application of EU requirements to EU members states.

C10. The Western Climate Initiative (WCI) involves voluntary membership. California and the Province of Quebec are part of the WCI. The Province of Ontario recently announced its decision to join the WCI. Once committed to an international arrangement, a government must apply its requirement. In the case of Kyoto and the WCI there is scope to exit voluntarily and without reference to other Parties, and that option has been exercised.

*Compliance with the Kyoto Protocol and its Replacements*

C11. There are no financial penalties for non–compliance with the Kyoto Protocol. The main penalty was loss of reputation[15]. A country that failed to achieve its target emission level for the first compliance period (to the end of 2012) could purchase international credits to make up its shortfall, which would be expensive, so that it can still claim compliance. Alternatively, the country could choose to make up the shortfall in the subsequent compliance period, although that course of action could also be expensive. However, a country in this situation can also choose to not sign up for the subsequent period, which effectively avoids all penalties other than the embarrassment (and damage to reputation) of failing to comply during the first period. Given the few number of countries that have signed up to the Doha Amendment, which covers the second compliance period from 2013 to 2020, that new agreements does not have legal effect in international law.

C12. Canada faced this situation and chose, in 2011, to exercise its right to withdraw from the Kyoto Protocol, which took effect one year later in December 2012, just before the end of the compliance period. Canada's emissions had exceeded the target levels. The decision to withdraw avoided a formal finding of non–compliance.

C13. Under the EU–ETS the penalty for not meeting annual targets is a reduction in EAs available for in subsequent years and temporary suspension of the Member State's ability to transfer EAs to another Member State[16].

*Financial Reporting Impact of an International Agreement*

C14. A national government[17] that has signed an international agreement to achieve emission reductions may need to report on commitments arising from that agreement. Those commitments may need to be reflected in the financial statements and involve financial elements such as assets and liabilities (provisions) or contingencies (contingent assets or contingent liabilities), depending on the specific circumstances. A commitment from such an agreement may initially result in a constructive obligation, if the government makes a public commitment and publishes a detailed plan, even where there is no legal enforceability. Legally binding obligations could arise either when:

(a) A national government has already passed national legislation that binds it to certain types of international level agreements; or

(b) Legislation passed at the national (or sub-national) level—to give force to the international agreement—then binds the government to the international level commitment.

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[15] See the UNFCCC's "*Introduction to the Kyoto Compliance Mechanisms*" available at http://unfccc.int/kyoto_protocol/compliance/items/3024.php. Other discussions of this point include; The Institution of Environmental Sciences' article, "*What would be the consequences of not meeting the Kyoto carbon targets*?" by Paulina Poplawski–Stephens and "*The Nuts and Bolts of Kyoto Withdrawal*" by Andrew Leach, published by the Globe and Mail, Canada.

[16] The situation with respect to the EU–ETS—the different types of EU EAs envisaged, and scope for EAs to be transferred between entities, including between Member States—involved is more complex that is conveyed in this summarized account.

[17] This discussion focuses on international level agreements that impact on national governments. Similar reasoning can be applied to international agreements that impact on either state/province governments or other local governments or that impact on a mix of national governments, state/provincial governments and other types of local government.

*Choice of Policy Interventions—International Agreements*

C15. A national government that has signed an international agreement to reduce emissions may have substantial flexibility in how it achieves the emission targets. An ETS is one policy choice. Carbon taxes, command–and–control interventions or forestation projects are other possible choices. An excerpt from a Parliament of Australia website describes the different "mechanisms" that a government may use, under the Kyoto Protocol, to meet its emission reduction target:

> The parties to the Kyoto Protocol can meet their obligations either by reducing their greenhouse gas emissions or increasing their removals sinks or both. Removals sinks are limited to direct human-induced land-use change and forestry activities (afforestation, reforestation and deforestation since 1990).
>
> The Kyoto Protocol does not specify the mechanisms by which Parties to the Protocol must meet their emissions target, thus providing an Annex I country such as Australia reasonable amount of discretion as to the policies and measures it implements domestically to meet its target. Domestic abatement action should be the primary means by which Annex I countries such as Australia meets their emissions target. Parties are also provided with an indicative list of policies and measures that they may wish to consider. These include promoting sustainable agriculture, promoting the renewable energy, removing market assistance for environmentally damaging economic activities, confronting the issue of transport sector emissions, and so forth.
>
> The Kyoto Protocol also sets out three 'flexibility mechanisms' that Annex I parties such as Australia may use as a supplementary means of meeting its target. These potentially help Annex I Parties cut the cost of meeting their emissions targets:
>
> (a) The Clean Development Mechanism—this mechanism allows Australia to implement projects that reduce emissions in developing countries (non-Annex I Parties to the Protocol), or absorb carbon through afforestation or reforestation activities, in return for certified emission reductions that Australia can use towards meeting its own target.
>
> (b) The Joint Implementation Mechanism—this mechanism allows Australia to implement an emission-reducing project or a project that enhances removals by sinks in the territory of another Annex I Party and count the resulting emission reduction units towards meeting its own target.
>
> (c) Emissions Trading.

*International Agreement Creates an ETS*

C16. An international agreement may create an ETS which has the national government as either an administrator, administrative agent or ETS participant. If a national government is an ETS participant within an international ETS then participants' ETS accounting will apply. The Kyoto Protocol, for example, during its first commitment period (2008–2012) had ETS aspects. Emission reduction targets were established for each country. Countries could have surplus Kyoto units which they could sell to countries that needed to purchase Kyoto units to make up a deficit in meeting their Kyoto obligations. Alternatively, countries could choose to hold on to any surplus emission Kyoto units to count against emission obligations in future commitment periods.

*Primary Policy Objective—Reducing Emissions*

C17. The primary public policy aim of an ETS is to control, or "cap" emissions and, over time, reduce them. "Emissions" are gases emitted into the atmosphere. An ETS is working effectively where the volume of target pollutants released into the atmosphere each year stops rising and then, over time, reduces down to lower limits.

C18. The goal of an ETS is not necessarily to completely eliminate emissions, because some level of emissions may be both necessary and desirable. For example, one target gas for an ETS is carbon dioxide. Carbon dioxide is naturally emitted by almost all life forms, including plants and animals, and carbon dioxide will continue to be emitted into the atmosphere for as long as life exists on this planet. However, carbon dioxide is the primary "greenhouse gas" (GHG). The unnaturally high volume of carbon dioxide presently in earth's atmosphere causes global warming. Human activities that emit carbon dioxide include burning coal to produce electricity and burning petrol in combustion engines to drive machinery, cars and airplanes. An administrator's target for carbon dioxide will be to reduce emissions to earlier, more sustainable levels, rather than attempt to eliminate them entirely. By contrast to carbon dioxide, sulphur dioxide is a gas where the target would be to reduce man–made emissions to close to zero. Sulphur dioxide naturally exists in small quantities, and is not a by–product of life, except in a very few, exceptional cases. When mixed with rain sulphur dioxide form acid rain, and it causes respiratory diseases in humans when inhaled.

*Secondary Concern—Share the Costs of Emissions*

C19. In addition to an ETS's primary policy aim (to reduce emissions), a government may also use an ETS to redistribute or share the cost of emissions. Governments incur costs due to emissions. These include costs related to

(a) Health care for illnesses caused by emissions;

(b) New infrastructure to ensure sufficient water supply for communities and businesses;

(c) Increased emergency response activities arising from forest fires and more powerful storms caused by global warming;

(d) New and improved infrastructure for flood prevention, including relocation of residences after flooding, to address increased risk of flooding due to global warming; and,

(e) Increased border control activities due to environmental changes as a result of global warming (droughts, rising water levels, etc.) affecting neighboring or related countries.

*Government Interventions that Work Best—Maximize Benefits and Minimize Costs*

C20. When a government develops its policy to address emissions, its intervention approach is likely to take into account a complex set of other considerations, including the political context for an intervention. Two considerations that support use of an ETS are that a government wants to:

(a) Avoid negative impacts (as far as is possible) on business activity and the economy. (For example, the ETS should not result in significant additional costs that make businesses less competitive and/or drive business to leave that jurisdiction in order to find cheaper locations. Government aims to avoid interventions that could cost jobs, cause inflation, add to the costs of ordinary people and/or damage the economy.)

(b) Achieve an economically efficient way to achieve emission reductions. (For example, an ETS provides scope to trade EAs, which is expected to ensure that the overall costs of emission reductions for ETS participants are less than the costs of other types of

government intervention. An ETS provides economic incentives to find efficient, future-oriented solutions to the problem.

*Choice of Intervention to Achieve the Primary Policy Objective*

C21. Apart from an ETS there are three other main interventions (or mechanisms) that a government could use to achieve the primary policy objective of reducing harmful emissions. These are:

(a) Command and control;

(b) Carbon taxes; or

(c) Results–based financing.

Command and Control

C22. "Command and control" consists of government regulation that directly addresses pollution, without the involvement of a market mechanism. For example, governments can pass legislation that requires coal powered electricity generators to install filters to reduce the amount of pollutants emitted, set limits on emissions and use fines to enforce the limits. Command and control does not involve issuance and trading of emission allowances or emission allowance equivalents. Descriptions of what is meant by "command and control" include:

(a) Command and control policy refers to environmental policy that relies on regulation (permission, prohibition, standard setting and enforcement) as opposed to financial incentives, that is, economic instruments of cost internalization[18].

(b) Command and control regulation can be defined as "the direct regulation of an industry or activity by legislation that states what is permitted and what is illegal". This approach differs from other regulatory techniques, e.g. the use of economic incentives, which frequently includes the use of taxes and subsidies as incentives for compliance. The 'command' is the presentation of quality standards/targets by a government authority that must be complied with. The 'control' part signifies the negative sanctions that may result from non-compliance e.g. prosecution[19].

Carbon taxes

C23. Carbon taxes place a price on carbon, using a metric based on carbon (e.g. price per metric ton of $CO_2$ or equivalent ($tCO_2e$)). A carbon tax guarantees the carbon price in the economic system and, if the price is high enough, will provide an incentive for entities to reduce their emissions to reduce the tax cost.

Results-based financing

C24. Results-based financing uses a financing approach to support development objectives and policy goals. Financing approaches are used, for example, for reducing emissions from deforestation and forest degradation, and to support the role of conservation, sustainable management of forests and enhancement of forest carbon stocks. A variety of forms of results-based financing exist. In some cases, contributors of finance receive carbon credits or allowances in exchange. Such credits or allowances may be remitted to the administrator of an ETS to which the contributor is a participant, instead of credits or EAs issued by that scheme.

[18] Glossary of Environment Statistics, Studies in Methods, Series F, No. 67, United Nations, New York, 1997.

[19] McManus, P. (2009) Environmental Regulation. Australia: Elsevier Ltd

*Different Perspectives on Making Emissions Costly*

C25. Emissions can be made costly by using either:

(a) A tax on emissions, so that the amount of taxes paid increases directly proportional to emissions and there is no threshold before the emitting entity incurs costs; or

(b) Restrictions on the volume of emissions, so that exceeding a set limit results in costs (an ETS's basic approach); or

(c) Fines or other penalties for exceeding a set limit.

C26. In each of these three types of intervention a government would be using economic incentives (actual or potential costs due to emissions) to influence behavior and achieve the objective of reducing emissions.

C27. Like carbon taxes, an ETS can be viewed as making emitters pay for their use of the atmosphere, which would otherwise appear from the emitter's perspective to be a "free good". (There is also a potential up–side for participants, because an entity may be able to sell any surplus EAs and thereby earn revenue from its ETS involvement.) A non-zero cost for EAs could be viewed, applying this logic, as providing the right economic incentives for good economic decisions about scarce goods.

C28. Another view is that emissions should generate revenue to a government, because that shares pollution costs within the economy. A carbon tax at source directly charges the emitting entity and indirectly the customers that receive the emitters' products, while also providing funds that a government can use to defray any costs (health, etc.) that it incurs due to pollution. Similarly, if a government charges for EAs or auctions them, the funds received can be used to defray costs arising from pollution, which the government would otherwise bear and share with all taxpayers. Those funds may also cover the costs of administering the ETS. Therefore, charging ETS participants for EAs could be considered cost designed either to:

(a) Help achieve the ETS's primary public policy aim;

(b) Generate revenue for the government to cover the costs of the ETS; or

(c) Generate revenue for the government to cover the costs of emissions (health care costs, etc.).

C29. On that basis, the sale of EAs (or a non–zero transfer) by a government does not reflect the "value" of the allowances so much as a decision about either economic incentives or cost sharing. For an ETS the primary approach to economic incentives is creation of economic scarcity, which is established by setting emissions limits, i.e. the "cap".

*Participant's Scope to Control or Influence the Economic Impact of an ETS*

C30. The economic impact for an ETS participant depends on various factors. Some of the factors are within the participant's control or influence:

(a) Incurrence of costs for initial receipt of EAs depends on whether the administrator decides to charge a price and/or auction EAs. The participant may also decide, if EAs are auctioned, to purchase fewer EAs, on the basis that there is scope to reduce emissions below the level that the government has set.

(b) Whether a participant incurs further costs to purchase additional EAs during the compliance period depends on whether the entity keeps its emissions below the limit set by the original EAs received.

(c) Costs to change operations (e.g. new technology) and thereby reduce emissions is managed by entity.

(d) The participant also chooses whether to trade in EAs, which could result in gains (losses) from trading activities, with risks arising that could impact on the statement of financial performance.

*What "Costs" Should an ETS Participant Pay, if Emissions Remain Within its Cap?*

C31. The question of how costs arise under an ETS is an important difference between its operation and that of carbon taxes. An ETS does not aim to charge its participants for all their emissions. Apart from the cost to receive EAs at the start of the compliance period—where that could be zero or minimal—participants will have no further costs so long as they stay within the limits set for them by the administrator. This element relates to one of the secondary public policy objectives, which is to avoid negative consequences for society, including the economy, by adding an unavoidable cost burden to companies.

C32. This implies a different perspective from the cost–sharing one. Emitters can avoid ETS costs, so long as they remain within the "cap" or limits for emissions that the administrator has put in place. Applying this perspective, "the norm" is viewed as participants remaining within the limits created by the EAs they receive at the beginning of a compliance period. Only a minority of participants will incur costs, because they cannot remain within the limits imposed. Even then the net effect for the group of participants is "cost–neutral", because other participants will receive benefit from being able to sell their excess EAs.

C33. If that approach were mapped onto carbon taxes, it is as though the taxes would only apply to emissions that *exceed* a particular level, instead of all emissions.

C34. From this perspective an accounting approach that treats *all* emissions as costly does not appear to reflect the economic substance of the arrangement, whereby only emissions that exceed the cap are costly. The problem is that participants are able to sell their EAs and, if EAs are assets, then it seems that emissions need to be accounted for as liabilities in order to "balance" the effect of EAs.

C35. Following the idea that only emissions that exceed the cap are important, because only the excess has economic consequences, how should the possibility of excess be treated? A cap has been set to force entities to reduce emissions, and it is likely that most participants will find staying within their cap difficult. At the start of the compliance period participants are likely to have a risk of exceeding the volume covered by their EAs, which could be treated as a contingent liability. The value (V) of that contingent liability could be estimated as:

V = Price of EAs*[ (Annual average emissions) — (Emissions covered by EAs received) ].

C36. *Example*: The participant's emissions have averaged 50,000 units per year during the last three years. The administrator issues EAs that will cover 48,000 units, which represents a 2,000 unit reduction compared to the previous years' average. The current market value of an EA is 30CU. Then the value of the contingent liability would be: CU30 X 2,000 = CU60,000.

Government Perspective (Administrator)—Low Economic Impact

C37. From the government's perspective an ETS, in substance, should not have a major economic impact on the government when considering its role as the ETS administrator. There are costs to set up an ETS, and costs to administer the ETS going forward, but the ETS is not designed

to generate revenue (for example), nor is it a major on–going cost for government, when compared to other types of government interventions.

C38. With respect to revenue generation, an ETS appears capable of achieving its policy objectives without generating any inwards cash flow for the government. Even where a government decides to auction or otherwise sell EAs and thereby generate cash flows, the sale decision is not usually about earning revenue. Auctions help create an EAs market and determine the current market price for EAs, rather than generate revenue for the government. Where a small fee is charged for EAs, this could, as described above, be justified on several grounds, but such charges are likely to be relatively small, compared to the value of the EAs to participants or the amount of revenue capable of being collected if the government takes the alternative approach of applying a carbon tax. If revenue is generated by an ETS, then the economic benefits would be derived from incoming service potential rather than cash flows.

C39. The situation with respect to expenses is similar to that for revenue. There are costs involved to set up an ETS and then to administer the scheme going forward. These costs involve cash outflows, which would be reported as expenses. The costs are relatively minor compared to many government interventions. The major part of ETS activity—the issuance of EAs to participants, their holding of EAs and eventual return of them to the administrator, and participants' emission activity—happens without any impact in terms of cash outflows for the government in its role as ETS administrator.

C40. Table 2 on the following page provides an overview of the financial impacts of these different interventions. For all four types of intervention the government will incur:

(a) One-off, initial costs to develop and implement the intervention; and

(b) On-going costs to manage the scheme, which will usually involve a monitoring and enforcement aspect.

C41. These costs are shown as costs "to develop and manage" in the table.

C42. Table 2 also shows that the economic impact for the participant, i.e. the emitting organization, depends on various factors, some of which are, to some extent, within the participant's control. Specifically:

(a) Incurrence of costs for EAs initially, depends on whether the administrator decides to charge a price and/or auction EAs. The participant may also decide, if EAs are auctioned, to purchase fewer EAs, on the basis that there is scope to reduce emissions below the level that the government has set.

(b) Whether a participant incurs further costs to purchase additional EAs, during the compliance period, depends on the entity's control over its emissions, so that the original EAs received are sufficient to cover all emissions.

(c) The entity is responsible for the extent of costs that it incurs related to changes to business activities (e.g. new technology) that reduce emissions and other decisions to manage their ETS involvement.

(d) The participant also chooses whether to trade in EAs, which could result in gains (losses) from trading activities, with risks arising that impact on the statement of financial performance.

**Table 2—Costs and Economic Impact for Administrator (Government)**

| Intervention | Administrator | Emitting Organization |
|---|---|---|
| ***Market Mechanism*** | | |
| ETS | Costs to develop and manage.<br>*On-going*: May receive revenue from EA transfers or from fines collected. (No cash flow implications other than fines and initial sale or transfer price charged.) | May incur costs to receive EAs, if these are transferred for a price.<br>May incur costs to purchase additional EAs, if organization emits more than the amount covered by original set EAs received.<br>May incur costs due to operational (e.g. new technology) to reduce emissions.<br>May have gains (losses) from trading in EAs |
| ***Non–Market Mechanisms*** | | |
| Command & control | Costs to develop and manage. | Limited to one-off, specific costs required to implement changes. (May affect organizations differently depending on their situation.) |
| Carbon Taxes | Costs to develop and manage.<br>*On-going*: Revenue from taxes collected. (Cash inflow from taxes.) | On-going costs (taxes) proportional to emissions. (Scope to reduce costs by reducing emissions.) |
| Results–based financing | Costs to develop and manage.<br>*On-going*: Costs to review project and provision of funding to be able to provide EAs in return. | Relatively low costs arising from application for funding and management of the grant to achieve results. |