

Meeting: International Public Sector Accounting
Standards Board

Meeting Location: Toronto, Canada

Meeting Date: December 8-11, 2014

Agenda Item 10

For:

Approval

Discussion

Information

Education Session: Emissions Trading Schemes

Objectives of Agenda Item

1. The objectives of the session are to:
 - (a) Consider the background and context for the Emissions Trading Schemes project; and
 - (b) Discuss any issues arising.

Materials Presented

| | |
|------------------|---|
| Agenda Item 10.1 | Background Paper |
| Agenda Item 10.2 | Project Brief (Approved) |
| Agenda Item 10.3 | IASB Emissions Trading Scheme Agenda Papers |

Actions Requested

2. The IPSASB is asked to consider the information provided and identify any issues arising.

Objectives of this Paper

1. This paper supports an education session on the IPSASB's Emissions Trading Schemes (ETSs) project. It describes the project's background and gives an overview of the financial reporting issues that are expected to be considered during the project.

Background—IPSASB Considerations

2. The IPSASB's first session on ETSs was in March 2012, when a staff member of the International Accounting Standards Board (IASB) provided a presentation on the topic. In June 2013 the IPSASB technical director described discussions with the IASB about scope to collaborate with IASB staff on this project. That was in the context of an IPSASB discussion on possible new projects.
3. In December 2013 the IPSASB approved the ETS project brief. The approved project brief is provided as Agenda Item 10.2. The IPSASB is presently reviewing responses to its Consultation Paper (CP), *IPSASB Strategy Consultation 2015 Forward*, which includes proposals for the IPSASB's 2015–2019 work program. The CP notes the ETS project as one of several to which the IPSASB has already committed.
4. The ETS project brief explains that this is a joint project between the IASB and the IPSASB. The joint phase comprises development of the IPSASB Consultation Paper (CP) and the analysis of responses to the CP. The IASB project was in abeyance from 2010 to 2014. It was reactivated in October 2014. The first IASB discussion since reactivation is planned for November 2014. Jane Pike, Senior Technical Manager, is leading the IASB's ETS project with support from Natasha Dara, Assistant Technical Manager. The IASB's ETS agenda papers for November are provided as Agenda Item 10.3.
5. The Task Based Group for this project consists of Aracelly Mendez, Ken Warren and Martin Koehler (European Commission).

Overview of this Paper

6. This paper describes:
 1. ETSs and recent developments.
 2. Project brief revisions and the revised project timetable.
 3. Joint project with the IASB.
7. An initial, high level overview of ETS related financial reporting issues is provided. This paper focuses on issues affecting ETS administrators. It relies on Agenda Item 10.3 to provide information on issues affecting ETS participants.
8. Although an education session, the following issues are raised for IPSASB consideration:
 - (a) Revised IPSASB project timetable;
 - (b) Impact of completion of the IPSASB's Conceptual Framework
 - (c) Sources of information on present accounting by public sector entities' involvement with ETSs—particularly those entities that act as administrators.

1 Emissions Trading Schemes and Recent Developments

Emissions Trading Schemes

9. An emissions trading scheme (ETS) is a market-based way to control pollution by providing economic incentives for reductions in pollutant emissions. ETSs provide polluting entities with flexibility to reduce their emissions in a cost-effective manner, while stimulating technological innovation and avoiding unnecessary negative impacts on the economy. The main focus of ETSs has been greenhouse gases, particularly carbon dioxide (CO₂).
10. The most common type of ETS is described as a “cap and trade” ETS. The “administrator” (a government entity) sets a legal limit or “cap” on the amount of pollutant that may be emitted. The overall cap divides into “allowances” (or units or permits). For example, the European Union (EU) ETS trades primarily in European Union Allowances (EUAs), the Californian scheme in California Carbon Allowances (CCAs), while the New Zealand scheme trades in New Zealand Units (NZUs).
11. The allowances are either allocated or sold to ETS “participants” providing them with rights to emit a specific volume of the specified pollutant. Firms are required to hold sufficient allowances to cover their emissions. The total number of allowances in an ETS region cannot exceed the overall cap, limiting total emissions to that level. Firms that exceed their allowed volume of emissions must buy allowances from those who have remained below their allowed volume. In effect, the buyer is paying a charge for polluting, while the seller is being rewarded for having reduced emissions. Thus, in theory, those who can reduce emissions most cheaply will do so, achieving pollution reduction at the lowest cost to society.
12. There are active trading programs in several air pollutants. For greenhouse gases the largest is the EU ETS. (Appendix A has a briefing paper from the European Financial Reporting Advisory Group (EFRAG) which describes the EU’s ETS. This scheme is also described in the IASB agenda papers in Agenda Item 6.3.) In the United States of America there is a national market to reduce acid rain, through restricting emissions of sulphur dioxide and nitrogen oxides. Allowances can be traded directly or through financial instruments that are then exchanged for units at a later point in time.
13. Some regional ETSs allow the use of emissions allowances from outside of the region. For example, participants in the EU ETS can use emissions unit types defined under the Kyoto Protocol, although this is subject to quantitative and qualitative limits.

Recent Developments

14. The developments below are provided for the IPSASB’s information. Staff view is that these developments do not indicate a need to revise the project brief. These developments will be taken into account as the project proceeds.

Kyoto Protocol and Other Initiatives to Reduce Greenhouse Gas Emissions

15. The Kyoto Protocol is viewed by many as the main force behind ETSs. (Further information on the Kyoto Protocol and related recent developments is provided in Appendix B.) The present abeyance of the Kyoto Protocol could suggest reduced importance for ETSs. A further development has been the so-called collapse of the EU market for emissions. Prices for emissions have fallen, mainly due to reduced industrial activity in Europe. Prices fell from \$40 per ton in 2008 to \$7 per ton at the

beginning of 2014¹. This has reduced the impact of ETSs in companies' financial statements, while also reducing the effectiveness of the schemes.

16. But ETSs do not depend on the Kyoto Protocol for their existence. For example, during 2014 the Chinese government announced that it will introduce a national market for carbon permit trading in 2016. The Chinese market, when fully functional, will be significantly larger than the EU ETS. South Korea plans to introduce a national ETS in 2015. Japan's regional initiatives, which include the City of Tokyo, are expected to expand during the next few years.
17. The EU has continued its ETS, which came into existence prior to full ratification of the Kyoto Protocol. As the EFRAG briefing paper in Appendix A notes, international support for the reduction of greenhouse gas emissions remains, along with significant support for ETSs:

The EU ETS was designed to be compatible with the Kyoto Protocol and the emissions limits in that. The first commitment period of the Kyoto Protocol expired on 31 December 2012 and the EU ETS therefore operates outside any wider multinational framework, pending the entry into force of the second commitment period. However, momentum behind implementation of such systems is growing in a broad range of countries. This includes national or sub-national systems in Canada, China, Japan, Kazakhstan, Korea, New Zealand, Switzerland and the United States.
18. Furthermore, the approach used to reduce greenhouse emissions can be used by governments to address other types of pollution problems that involve externalities.

IASB Developments (2002 to 2014)

19. The IASB began formal consideration of ETS financial reporting issues in 2002. The IASB focused on participants' issues. As explained above, participants in an ETS receive allowances to emit. Participants may be either private sector or public sector entities. For example, a coal-burning power plant or an airline controlled by a public sector entity will be an emitter of carbon dioxide and a potential participant in an ETS.
20. Key dates for IASB developments from 2002 to 2012 are:

IASB Developments—Participants' Involvement with ETSs

| | |
|------|--|
| 2002 | Decision to develop an interpretation for ETSs (International Financial Reporting Interpretations Committee (IFRIC)) |
| 2004 | IFRIC 3, <i>Emission Rights</i> issued. (Interpretation of existing IFRSs.) |
| 2005 | IFRIC 3 withdrawn. |
| 2007 | ETS project initiated (Joint project with Financial Accounting Standards Board (FASB)) <ul style="list-style-type: none">• Research into types of ETSs and key accounting issues.• 2010 Staff research paper submitted to IASB. |
| 2010 | ETS project deferred during IASB's agenda consultation. |
| 2012 | Project added to IASB's research agenda. (Not a joint project with the FASB.) |
| 2014 | Project reactivated September 2014, project team assigned, initially on the IASB's research agenda. |

¹ An estimate of the value of ETS unit trading for 2012 was €62 billion, which fell to €38 in 2013.

IFRIC 3 and the European Union's ETS

21. An important driver for the IASB issuance of IFRIC 3 was the imminent start of the EU's 'cap and trade' scheme, which was introduced in 2005. IFRIC 3 aimed to ensure consistent ETS accounting in EU companies' financial statements. However, IASB constituents considered that IFRIC 3 did not adequately address accounting for ETSS. The European Financial Reporting Advisory Group (EFRAG) recommended that IFRIC 3 *not* be endorsed for use in the EU².
22. The IASB project that followed IFRIC 3's withdrawal aimed to develop requirements specifically for ETSS. The project had an initial research phase from 2007 to 2010. A research paper was developed and submitted to the IASB in 2010. Subsequently the project was delayed by competing IASB priorities and staff shortages.

IPSASB Policies—Government Finance Statistics (GFS) Reporting Guidelines and IFRS

23. In early 2014 the IPSASB approved its policy, *Process for Considering GFS Reporting Guidelines during Development of IPSASs*. That policy will need to be applied during this project, along with the IPSASB's policy with respect to IFRS convergence, *Process for Reviewing and Modifying IASB Documents*.

Approval of the Conceptual Framework

24. In 2014 the IPSASB also completed the *Conceptual Framework for General Purpose Financial Reporting by Public Sector Entities* (Conceptual Framework). The IASB plans to issue an exposure draft of its revised conceptual framework in the first quarter of 2015. Ideally there should be consistent financial reporting by participants in ETSS, whether they are public sector entities or private sector entities. The impact of any emerging differences between the two conceptual frameworks could be important for this project.

GFS Reporting Guidelines

25. An OECD/Eurostat Task Force was formed to address consistent statistical accounting treatment for the EU ETS in National Accounts, which include both General Government Sector entities and other entities. The Task Force issued its final report in October 2010. Further discussion followed.
26. In February 2012 the international statistical community decided on a "split asset" approach which effectively offsets any cash received by government with a liability, on the basis that cash received is a pre-payment. Tax revenues are booked later when the permits are surrendered. The approach is called "split asset," because emission permits 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.
27. The effect of the 2012 treatment is to insulate government accounts from the impact of trading of permits. Permits issued by a government for free are not recorded in the government's accounts (no grants, no liabilities). Any government revenue is equal to the cash received (time adjusted).

² See, for example, the Deloitte discussion at: <http://www.iasplus.com/en/projects/research/short-term/emissions-trading>

28. Eurostat's 2013 *Manual on Debt and Deficit* includes guidelines on governments' statistical accounting for ETs. Appendix C has the relevant paragraphs from that manual. The International Monetary Fund's (IMF's) revised GFS manual—GFSM 2014—is available in pre-publication form. GFSM 2014 discusses emissions trading within the context of:
- (a) Government revenue—Revenue from taxes includes revenue from emissions permits in the *Use of Goods and on Permission to Use Goods or Perform Activities (1145)* and within the specific subcategory *1145.2, Pollution Taxes*;
 - (b) Cross-cutting issues—In Appendix 4 section (c) headed “Permits to use natural resources as sinks” described the treatment for these permits, which include permits (or allowances) to emit carbon or other gases into the air; and,
 - (c) Energy taxes, which include carbon taxes—Appendix 7, A7.119 and A7.127.
29. As A7.119 explains, energy taxes include:
- ...taxes on energy products used for both transport and stationary purposes....Taxes on carbon are included under energy taxes rather than under pollution taxes. If they are identifiable, carbon taxes should be reported as a separate subcategory within energy taxes. A special type of carbon taxes are payments for tradable emission permits.
30. Appendix C of this paper includes paragraphs A4.448–A4.450, from the GFSM, which address treatment of permits to use natural resources as sinks from the perspective of the administrator (the government) and the participant (in this case called the “holder”).

Action Requested:

1. Members are asked to discuss any issues arising from recent developments.

2 Revised Project Brief and Project Timetable

31. The ETS project brief was discussed and approved by the IPSASB at its December 2013 meeting. The relevant minutes from December 2013 are as follows:

3. Emissions Trading Schemes (Agenda Item 3)

The IPSASB considered a project brief on Emissions Trading Schemes (ETS). The first phase will be a joint project between the International Accounting Standards Board (IASB) and the IPSASB. This phase will be up to the development of Discussion Paper (IASB)/Consultation Paper (IPSASB) and the analysis of responses to these publications. Staff noted that ETS is currently on IASB’s research agenda and not on IASB’s active agenda. The project will include both grantors and participants in ETS.

The IPSASB directed that the project should be principles-based and that it should include discussion of the auctioning of allowances and permits to emit as well as allocation of allowances and permits at no cost. The IPSASB also directed that the project should include a consideration of guidance on ETS in the Government Finance Statistics Manual.

Subject to amendments to reflect these points the IPSASB approved the project brief.

32. The project brief has been revised as directed and is provided as Agenda Item 10.2.

Project Timetable

33. Staff proposes to revise the original project timetable to reflect project activation in October 2014. The revised timetable has the same process and phase duration as that in the original project brief.

Revised Project Timetable

| Major Project Milestones | Expected Completion |
|--|----------------------------|
| Present Information Session | December 2014 |
| Undertake further research on types of schemes (January 2014–March 2014) | March 2014 |
| Discussion of issues and development of a Consultation Paper (CP) (April 2014–December 2014) | |
| Approve CP (6 month comment period) | December 2015 |
| Review of responses to CP and development of an Exposure Draft (June 2016–March 2017) | |
| Approve ED (4 month comment period) | March 2017 |
| Review of responses to ED and development of a IPSAS | |
| Approve Final IPSAS | Late 2017/Early 2018 |

Action Requested:

2. Members are asked to indicate whether they agree with the revised project timetable.

3 Joint Project with the IASB

34. In June 2013 the IPSASB discussed scope to collaborate with the IASB on the ETS project. The relevant minutes are provided below.

Excerpt—Approved June 2013 IPSASB Meeting Minutes

Prior to any discussion around approval of projects the Technical Director updated the members on the meeting with the IASB and the discussion with them about doing a collaborative project on Emissions Trading Schemes (ETS). It was noted that the IASB expressed interest in working collaboratively on a research project to develop a consultation paper on ETS, though it was unwilling to commit to further work beyond that at this time. At that stage however, the IPSASB would be free to undertake further work for the public sector as it sees fit.

Some members asked for clarification of what a research project would be and about the IPSASB's ability to manage such a project. Caution was also expressed about being clear up front about what collaboration means, including whether any document issued would be joint. The need for an exit path to be able to proceed as the IPSASB sees fits for its constituents was highlighted.

Staff noted that generally they saw this as the usual first stage that would be undertaken on a project regardless of the IASB's involvement and that the benefit would be the opportunity to leverage the IASB's resources. Because the IPSASB can proceed subsequent to the consultation paper as it sees fit, staff sees the risks as mitigated and considers this a "win-win" situation.

The IPSASB agreed ultimately that the key consideration should be whether ETS is a priority project for the public sector.

35. The project brief notes that this will be a joint project with the IASB during its first phase:

Relationship to IASB—Research Product

4.1 It has been agreed that the first phase will be a joint project with IASB. At present ETS is on the IASB's research agenda and there is little likelihood of it being moved to the active agenda in advance of a further consultation on the IASB's Work Plan. [Project Brief]

36. Present indications are that the ETS project is likely to move onto the IASB's standards development program, following its time as a research project. However an IASB decision on this will be made at the end of the research phase.
37. The first phase of the IPSASB project will result in a consultation paper (CP). The CP will identify the main statutory ETS schemes and their key characteristics, the main accounting issues and the viable options for accounting treatments and presentation for ETS. It will provide preliminary views where the IPSASB is able to formulate such views. The ultimate objective of the project is to issue one or more IPSASs on ETS covering both public sector administrators and public sector participants. The IASB's research phase will result in a discussion paper (DP), which is similar in nature to an IPSASB CP.
38. The two papers (IPSASB CP and IASB DP) will be distinct and different products, although similar in kind. One predictable area of difference will be the wider scope of the IPSASB CP, which will address financial reporting by both ETS administrators and participants. The IASB DP is expected to focus on financial reporting by ETS participants.

39. This joint IASB–IPSASB approach is likely to support inter-entity comparability by supporting consistent treatment by entities across the public sector and private sector, to the extent that that is appropriate. Further benefits include scope for IPSASB staff to leverage off the IASB’s work, where significant insights have been gained with respect to financial reporting issues faced by ETS participants and there is strong outreach into participant groups as well as on-going discussion of the ETS financial reporting issues they face. The IPSASB’s extensive experience with public sector issues such as accounting for non-exchange revenue is likely to benefit the IASB.
40. Staff will apply different conceptual frameworks as they develop their respective papers. Whether differences between the two frameworks will have major implications for the ETS project depends ultimately on the final form of the IASB’s revised conceptual framework, which should be available by the end of 2016. As an illustration of differences, when the IASB Agenda Paper 6B discusses measurement (see pages 7–10) that discussion uses the term “fair value”, whereas the IPSASB’s Conceptual Framework does not use that term. Within the IPSASB context the measurement objective in Chapter 5 of the Framework would apply, when discussing measurement basis alternatives. That objective is not relevant to the IASB’s measurement considerations.

Action Requested:

3. Members are asked to note that the ETS project is initially a joint project with the IASB.

4 Financial Reporting Issues Raised by ETSs

41. As noted in the project brief, the IPSASB's ETS project will cover financial reporting issues faced by both administrators and participants. The project brief identifies key questions for each, as follows:

Administrators

Do Kyoto Protocol Units (also known as assigned authorized units (AAUs) under the New Zealand scheme) issued to national governments under the Kyoto Protocol meet the definition of an asset?

If Kyoto Protocol Units are an asset what is the nature of the asset and how should they be measured?

Do obligations of national governments under the Kyoto Protocol and other international treaties or accords give rise to liabilities?

Do allowances (baselines) to emit that are issued to participants without charge give rise to an expense and liability of the administrator? If so, how should such liabilities be measured and at what point does the expense/liability arise?

Does revenue arise when participants surrender allowances to the administrator? If so, what is the timing of the recognition of such revenue?

Participants

Are allowances and baselines assets of the participant entity?

How should such assets be measured both at initial recognition and subsequently? Does the manner in which the participant entity acquired the allowances -purchased or allocated at no cost by the administrator-affect measurement?

When should a liability be recognized for emissions in excess of allowances or baseline-actual or expected basis?

Should the presentation of assets and liabilities be on a gross, net or linked basis?

Split Asset Approach and Unit of Account—Scheme or Allowances (Rights and Obligations)

42. As noted above, the statistical community uses a "split asset" approach to account for governments' involvement with allowances.
43. IASB Agenda Paper 6B raises the possibility of "the scheme" as the "unit of account". (See Agenda Paper 6B, paragraphs 9–10.) Then impact of the participant's overall involvement in the ETS would be considered. This contrasts with focusing separately on participants' holding of allowances (emission rights, indicative of an asset) and their obligations to submit allowances (their responsibility for emissions, indicative of a liability).
44. Staff proposes to discuss the split asset approach and the unit of account issue in the CP.

Administrators

45. More information is needed to fully identify the main financial reporting treatments presently used by governments for their involvements with ETSs as administrators. Information collected to date is restricted to:

- (a) GFS reporting guidelines (GFSM 2014 and Eurostat's *Manual on Debt and Deficit*); and
 - (b) Information on ETS financial reporting by public sector entities in New Zealand³.
46. Based on a 2013 Australian review⁴ the following jurisdictions have ETSs (either national or subnational):
- (a) EU nations;
 - (b) Canada;
 - (c) China;
 - (d) Japan;
 - (e) Kazakhstan;
 - (f) New Zealand;
 - (g) South Korea;
 - (h) Switzerland; and
 - (i) U.S.A.
47. Staff will investigate whether information can be obtained on ETS financial reporting practices by public sector entities from these jurisdictions. A particular focus will be information on financial reporting by ETS administrators. An example questionnaire, developed by IASB staff to research financial reporting by ETS participants, is provided in **Appendix D** as an illustration of the type of instrument that could be used to gather this information.

IASB and Participants' Financial Reporting Issues

48. The IASB's considerations have focused on ETS participants. Staff refers IPSASB members to the IASB Agenda Paper 6B (in Agenda Item 10.3), which provides an overview of financial reporting issues related to participants' involvement in ETSs.

Action Requested:

4. Members are asked to note:
- (a) The financial reporting issues identified to date; and,
 - (b) The need to collect more information on public sector entities' financial reporting of their ETS involvements, particularly financial reporting by ETS administrators.

³ Information on the financial reporting issues and practices is found in: the 2011 report *The Emissions Trading Scheme—Summary Information for Public Entities and Auditors*, issued by the Office of the Auditor-General of New Zealand, while the *Financial Statements of the Government of New Zealand* illustrate financial reporting for both a government's Kyoto obligations and its issuance of emissions allowances, which are treated as analogous to issued currency.

⁴ Parliament of Australia, (Anita Talberg, Science, Technology, Environment and Resources Section and Kai Swoboda, Economics Section) *Background Note, Emissions Trading Schemes Around the World*, 6 June 2013. (The report's list included Australia, which no longer has an ETS, and noted that China would introduce pilot schemes in 2013.)

5 Next steps:

49. Staff and the TBG will:

- (a) Research and discuss key issues to be canvassed in the Consultation Paper; and
- (b) Provide an issues paper to the IPSASB's March 2015 meeting, including a proposed structure for the CP.

IPSASs—Treatment of Similar Issues

50. During development of the CP IPSASB staff will review IPSASs for relevant coverage of similar issues. The following IPSASs, for example, appear relevant:

- (a) IPSAS 19, *Provisions, Contingent Liabilities and Contingent Assets*, which includes coverage of site restoration provisions (landfills, contamination, etc.), which could be analogous to business activities that result in an obligation to remit emissions allowances.
- (b) IPSAS 23, *Revenue from Non-Exchange Transactions (Taxes and Transfers)*, which covers the recognition and measurement of donated assets. (Participants' receipt of emissions allowances from an administrator, where this is a non-exchange transaction, is presently covered by this IPSAS.)
- (c) IPSAS 31, *Intangible Assets*.

51. However, staff proposes to apply the working assumption that ETS activity is specialized enough for its related accounting issues to need special treatment, developed using the Conceptual Framework and, as stated in the project brief, a principles based approach..

Symmetrical Approach

52. The ETS project brief notes that it may be possible to take a symmetrical approach, whereby an administrator's accounting would mirror participants' accounting. (See paragraph 1.11, Agenda Item 10.2.) This was the IPSASB's approach to grantor's involvement with service concession arrangements, which resulted in IPSAS 32, *Service Concession Arrangements: Grantors*. That approach would minimize misalignments between administrators' and participants' accounting. It would involve reviewing a transaction from both sides and considering (for example) where control over an asset resides—with the administrator or with the participant. Staff notes, as does the project brief, that symmetrical approaches are not always feasible.

Action Requested:

- 5. Members are asked to note the proposed next steps.

APPENDIX A: EFRAG BRIEFING PAPER—EUROPEAN UNION EMISSIONS TRADING SCHEME



EU Emissions Trading Scheme

Objective

1. To summarise⁵ how the EU Emissions Trading Scheme (EU ETS) operates, for inclusion output from IASB research project (a Discussion Paper).

Background to the EU ETS

2. The EU ETS is the largest multi-country cap & trade scheme in the world. EU ETS is a statutory (i.e. mandatory) scheme that applies to the volume of greenhouse gases emitted by more than 11,000 power plants, factories and other fixed installations ('covered installations'), and aviation operators⁶. It covers all 28 EU member states, plus Iceland, Norway and Liechtenstein. These installations are collectively responsible for around 50% of the EU's CO₂ emissions.
3. The EU ETS was designed to be compatible with the Kyoto Protocol and the emissions limits in that. The first commitment period of the Kyoto Protocol expired, on 31 December 2012 and the EU ETS therefore operates outside any wider multinational framework, pending the entry into force of the second commitment period. However, momentum behind implementation of such systems is growing in a broad range of countries. This includes national or sub-national systems in Canada, China, Japan, Kazakhstan, Korea, New Zealand, Switzerland and the United States.
4. The EU ETS applies to:
 - CO₂ emissions from:
 - Power and heat generation;
 - Energy-intensive industry sectors, including oil refineries, steel works and production of iron, aluminium and other metals, cement, lime, glass, ceramics, pulp, paper, cardboard, acids and bulk organic chemicals; and
 - Civil aviation.
 - Nitrous oxide (NO₂) from production of nitric, adipic, glycolal and glyoxalic acids; and
 - Perfluorocarbons (PFCs) from aluminium production.

⁵ This document does not cover all aspects of the EU ETS and should not be taken as being a comprehensive guide. Further information is available on the website of the European Commission.

⁶ There are some specific requirements relating to aviation, which are outside the scope of this summary.

5. Emissions are measured in tonnes of CO₂ or equivalent, based on greenhouse impact. Participation in the EU ETS is mandatory for companies operating in this sector, but in some sectors only certain, larger, installations are covered.
6. The cap is on all emissions of greenhouse gases from covered installations based on emissions over a set period. Each of these periods is called a 'phase' or 'trading period', and emissions are therefore capped over the entirety of that phase. The first phase was from 2005-2007, the second phase from 2008-2012, the current third phase started in 2013 and will last until 2020, and the next will start in 2021. As of the current phase this cap reduces annually up to 2020 and beyond. Allowances within a scheme period are fungible (that is they are perfectly substitutable). Furthermore, allowances still in circulation from the previous period are banked to the current period (see paragraphs 42-44).
7. Scheme participants are required to measure their output of greenhouse gases from covered installations on an annual basis, using calendar years. In the April following the end of each calendar year scheme participants are required to surrender allowances equal to the volume of greenhouse gases emitted in the previous calendar year.
8. In discussing the EU ETS this paper considers the following elements:
 - Holding and recording of emissions allowances;
 - Allocation and auctioning of emissions allowances;
 - Trading of emissions allowances;
 - Monitoring of emissions;
 - Surrender of emissions allowances;
 - 'Banking' of emissions allowances;
 - Linkages with other emissions trading schemes.
9. It also identifies some key features in relation to financial reporting.

Holding and recording of emissions allowances

10. Rights to emissions allowances are fully dematerialised (they exist only in the form of electronic records) and are recorded on a single EU registry. The EU registry records the holding of emissions allowances and transactions concerning these allowances. The main types of transactions defined are:
 - Creation of allowances;
 - Free allocation of allowances;
 - Auctioning of allowances;
 - Trading of allowances;
 - Surrendering of allowances; and
 - Deletion of allowances.

11. Any EU company or legal individual may open an account at the EU registry and participation is not limited to these entities that operate covered installations. Accounts are therefore held by both operators (who have a holding account per covered installation and may also have additional trading accounts offering more flexibility) and traders (including banks).
12. The accounts on the registry are accessed online, in a manner similar to online-banking or a securities custodian.
13. There are two main types of accounts held by companies or physical persons on the registry: 'holding' accounts and 'trading' accounts. Entities frequently have both types of accounts, and the main difference between them is in relation to the security rules applicable to trading transactions, including initiation of transfers.
14. Holding accounts can only make transfers to accounts specified in a trusted account list, and the process takes 26 hours to complete⁷.
15. Trading accounts can make transfers to any other accounts. For transfers to accounts specified in a trusted account list, delivery is immediate. For transfers to accounts not specific in a trusted account list, dual authorisation is required and delivery takes place 26 hours later.

Allocation and auctioning of emissions allowances

16. The emission rights are distributed amongst scheme participants either through direct grant ('allocation' for free) to covered installations or through an auction process.

Allocation of emissions allowances

Existing installations

17. For the 2005-2007 and 2008-2012 periods, allowances were allocated to covered installations by national governments in line with what were known as National Allocation Plans. Participating states drew up National Allocation Plans and had relative freedom to allocate allowance (subject to not unduly favouring any specific undertakings or companies). In the 2005-2007 and 2008-2012 schemes the vast majority of emissions allowances under the scheme were allocated in this manner.
18. For the 2013-2020 period and beyond the allocation of allowances is done on the same basis across the participating countries, using both a 'bottom-up' and 'top-down' approach.
19. The bottom-up allocation of emissions allowances to covered installations is in line with a 2011 European Commission 'Benchmarking Decision'. The number of allowances allocated to each installation is based on a number of factors, including historical levels of production⁸, the product being produced, benchmarking in comparison to leading producers and the cross-sectoral correction factor, decreasing annually in line with the overall emissions cap. There is also a split between manufacturing and electricity

⁷ When the 26-hour delay applies, the transfer is initiated 26 hours after its validation and is normally completed immediately after initiation, unless unforeseen circumstances (e.g. technical downtime of the system).

⁸ There is a specific methodology for free allocation for process emissions (estimated to cover less than 1% of eligible emissions), which is based on historical levels of emissions.

production, with electricity production not, in general, being entitled to any free allocation of emissions allowances.

20. For installations from sectors and sub-sectors included in a list of sectors deemed to be exposed to a risk of 'carbon leakage' (when, for reasons of costs related to climate policies, production is at risk of being transferred to countries without constraints on greenhouse gas emissions) the allocation deriving from the benchmarking formula is multiplied by 100% to calculate the number of emissions allowances to be received. For manufacturing covered installations not deemed to be at risk of carbon leakage, the number of emissions allowances to be received each year is calculated by taking the number generated from the benchmarking formula and multiplying by a predetermined percentage that progressively reduces the number of free allowances allocated (it reduces from 80% in 2013 to 30% in 2020).
21. There is also a 'top-down' cap on the total amount of allowances that can be allocated for free, based on the overall number of allowances to be allocated. If the bottom-up calculation results in a total number of emissions allowances to be allocated in excess of the "free allocation cap", the number of emissions allowances for each covered installation is reduced by a pre-determined formula known as the Cross-Sectoral Correction Factor. This ensures that the total number of allocated allowances does not exceed the free allocation cap in each year.
22. In each period, the actual number to be received will not be known until both the bottom-up and top-down processes are complete and approved across the whole EU ETS. But once the processes are complete, the number of allowances to be allocated for each year in a period is known in advance, except for significant capacity changes.
23. The actual allocation of emissions allowances is done by crediting the covered installation's account at the EU registry. This generally takes place by 28 February each calendar year, in relation to the allocated emissions rights for that year. Changes in allocation for installations that have partially ceased to operate, significantly changed their capacity or closed in that year, will only take place in the subsequent calendar year.

New and expanding installations

24. New installations that are covered by the EU ETS and installations that increase capacity significantly are eligible for the allocation of additional free allowances from what is known as the 'New Entrants' Reserve'. The number of allowances received is calculated on the same basis as an existing installation, but uses estimated capacity (increase) and standard capacity utilisation factors rather than historic figures.

Cessations and significant capacity reductions

25. In the case of covered installations that close, reduce capacity significantly or partially cease operations there are implications for the number of emissions allowances allocated. In all instances the change in the number of emissions allowances allocated takes place in the calendar year following the closure, reduction of capacity or partial cessation.
26. Entities have no obligation to return previously allocated allowances if they close, reduce capacity or partially cease operations at a covered installation.

Auctioning of emissions allowances

27. The remaining emissions rights (around half of all emissions rights in the 2013-2020 period) are auctioned. Emission allowances are distributed across the countries participating in the scheme. Eight-eight percent of the allowances are distributed based on the national share of EU ETS emissions in 2005. Ten percent are distributed to the least wealthy EU states as a form of fiscal transfer. The remaining 2% is given as a 'bonus' to countries that had, by 2005, reduced their greenhouse gas emissions by more than 20% from their 'base year' as defined in the Kyoto Protocol⁹.
28. Auctions are held on behalf of each national government, but are open to buyers from any country participating in the EU ETS.
29. There are no legal restrictions on how governments use the money raised by auctioning allowances, but the Directive governing the EU ETS states revenues generated 'should be used to tackle climate change in the EU and third countries' without legally requiring it. However, as of 2014, Member States have to report on the use of auctioning revenue.

Trading of emissions allowances

30. In principle, the trading of emissions allowances is open to anyone. At present, the main categories of traders are:
 - energy and industrial companies that have obligations under the ETS; and
 - financial intermediaries such as banks who operate both for speculation (proprietary trading), and on behalf of smaller companies and emitters (market making).
31. Most transactions in emissions allowances takes place in the form of derivatives. These derivatives are both over the counter and exchange traded. Settlement of the derivatives is either net cash, or through physical delivery (by transfer of an emissions allowance on the EU registry).
32. All transactions, in both derivatives and the emissions allowances themselves, will be regulated under the new Markets in Financial Instruments Directive ('MiFID'), applicable as of January 2017. Transactions in derivatives are already regulated under the currently applicable MiFID. Transactions in emissions rights are therefore subject to regulations regarding insider trading, market manipulation, transaction reporting and Anti-Money Laundering safeguards.
33. The most liquid European platform for trading of emissions allowances is via ICE Futures Europe, which has daily and monthly physically-settled futures that reference emissions allowances. As this is the most liquid market, most purchases and sales of emissions rights take place through the ICE futures market.

Monitoring and verifying of emissions

34. As part of the approval permit for joining the EU ETS (which is mandatory for covered installations) an approved monitoring plan is required. This sets out how the covered

⁹ Base year is 1990 for all countries apart from Bulgaria (1988), Hungary (average of 1985-1987), Poland (1988), Romania (1989) and Slovenia (1986).

installation will monitor and report their emissions during the year. Covered installations are therefore required to monitor their emissions throughout a year.

35. Reports of emissions are required to be verified by an external verifier. The external verifier's report is similar to the audit of financial statements. The report is based upon the systems included in the monitoring plan, and verifier is required to assess (and come to a 'reasonable assurance' conclusion) whether:
 - the report is complete and meets the requirements of the applicable European Regulation;
 - the operator has acted in compliance with the monitoring plan;
 - the data in the report are free from material misstatements; and
 - information can be provided in support of the operator's data flow activities, control systems and associated procedures to improve the performance of monitoring and reporting.
36. Verifiers are also required to include in the verification report any identified areas for improvement in relation to the operator's:
 - risk assessments;
 - development, documentation, implementation and maintenance of data flow and control activities and evaluation of the control system;
 - development, documentation, implementation and maintenance of procedures for data flow and control activities; and
 - monitoring and reporting of emissions.
37. A verified report of emissions during a calendar year is required to be submitted to the relevant national authority and the corresponding emission date entered in the EU registry by 31 March of the following calendar year. This verified emissions report identifies the amount of greenhouse gas emissions (in tonnes of CO₂ equivalent), and therefore the number of allowances that must be surrendered.
38. Each country is responsible for establishing measures to ensure that a verified monitoring report is submitted by operators for each covered installation. Submission is required for every year and any penalties for failure to submit (on time or at all) do not do not remove this obligation. If a covered installation fails to submit a verified monitoring report, the relevant national authority may 'assess' the number of emissions allowances required to be surrendered.

Surrender of emissions allowances

39. For each covered installation the number of allowances specified in the verified report must be surrendered by 30 April of the calendar year following that in which the emissions took place.

40. If an entity does not surrender sufficient emissions allowances by 30 April, there is a fine of €10010 per emissions allowance. The obligation to surrender emissions allowances is not extinguished, so the entity is also required to obtain sufficient rights to meet its obligation and surrender these.
41. Following surrender, the emissions rights are cancelled.

Banking of emissions allowances

42. Although emissions allowances are allocated and auctioned on an annual basis¹¹ all emissions rights for the 2013-2020 scheme period are fungible and may be surrendered to fulfil the obligations for any year of the period.
43. Emission rights from the 2008-2012 period may not be used to settle obligations arising in 2013-2020. However, in a process known as ‘banking’ emissions allowances remaining at the end of the 2008-2012 period were deleted and an equal amount of additional 2013-2020 rights were created and credited to the accounts of those who held 2008-2012 rights.
44. This banking process took place as part of a deliberate policy decision. For the 2005-2007 scheme period, banking (and therefore conversion of 2005-2007 emissions allowances into 2008-2012 emissions allowances) did not take place. This caused a collapse in the price of 2005-2007 emissions allowances, meaning the desired economic effect of disincentivising carbon emissions did not happen.

Linkage with other emissions trading schemes

45. The EU ETS currently stands alone, but the European Union is attempting to link the EU ETS to other cap-and-trade schemes. This would allow emissions allowances for one scheme to be used to satisfy liabilities created in other schemes.
46. It is not yet clear whether this would be through direct surrendering of EU ETS emissions allowances for other schemes (and vice versa) or whether the emissions allowances would be ‘swapped’ first.

Key features in relation to financial reporting

Linkage between covered installations and legal entities

47. The Directive governing the EU ETS refers to both ‘Operators’ and ‘installation’:
 - ‘installation means a stationary technical unit where one or more activities listed in Annex I are carried out and any other directly associated activities which have a technical connection with the activities carried out on that site and which could have an effect on emissions and pollution’ ; and
 - ‘operator’ means any [natural or legal] person who operates or controls an installation or, where this is provided for in national legislation, to whom decisive

¹⁰ 2013 equivalent, rising in line with Eurozone inflation.

¹¹ The auction calendar is determined on annual basis, but the auctioning itself takes place almost on a daily basis.

economic power over the technical functioning of the installation has been delegated.

48. Obligations for submitting a verified emissions report and surrendering emissions allowances fall on the operator of a covered installation on particular dates (see timeline).
49. An entity can therefore avoid any applicable obligation by not being the operator of a particular covered installation on the specified date.

Emissions allowances allocated for free

50. Allocated emissions allowances are intended to partially compensate operators for the costs of obtaining emissions allowances. The allocation is explicitly linked to a particular year.
51. However, operators which receive allocated emissions allowances are free to do with them as they wish. There is no requirement to continue to trade or to emit. However, an entity which substantially reduces its activities will receive a reduced allocation the next year. An entity that closes will receive no allocation the next year.

Annual timetable of key EU ETS dates for scheme participants

| | |
|-------------|---|
| 1 January | Start of annual emissions monitoring period. |
| 28 February | Receipt of allocated free allowances in EU registry account. |
| 31 March | Deadline for submission of verified annual emissions report for previous year. |
| 30 April | Deadline for surrender of allowances equal to the verified annual emissions from previous year. |
| 30 June | Deadline for submission of improvement report. |
| 31 December | Deadline for notification to national regulator of changes to monitoring plan, capacity, activity level or operations. End of annual emissions period. |

APPENDIX B: KYOTO PROTOCOL

Kyoto Protocol 1997—2012

- B1. The Kyoto Protocol is an international agreement to address global warming and delay climate change. The Protocol aims to reduce the total greenhouse gas emissions of developed countries (and countries with economies in transition) to 5 per cent below the level they were in 1990. The Kyoto Protocol is named after the Japanese city where it was concluded in 1997.
- B2. The Kyoto Protocol entered into force in 2005, after it had been signed and ratified by 55 countries—the minimum number needed for the Protocol to become international law. Only countries that ratify the Protocol are bound by it.
- B3. The Protocol set targets for greenhouse gas emissions for the period 2008 to 2012 (the first commitment period). Different countries have different targets. For the first commitment period country targets ranged from eight per cent below, to ten per cent above 1990 levels.
- B4. Parties to the Protocol are allocated an assigned amount of emissions units equal to their target multiplied by the number of years in the commitment period. For example, in the first commitment period New Zealand was allocated Assigned Amount Units (AAUs) equal to five times its 1990 emissions levels.
- B5. Parties may implement domestic policies and measures to limit or reduce emissions to a level equivalent to or less than their assigned amount, or take responsibility for any excess emissions through the flexibility mechanisms provided for in the Kyoto Protocol. The flexibility mechanisms are: International Emissions Trading, Joint Implementation, and the Clean Development Mechanism. These mechanisms allow developed countries to purchase emissions units from other developed countries or from emissions reduction projects implemented in other countries and use these for compliance with their Kyoto Protocol obligations.
- B6. The flexibility mechanisms thus allow a country to comply with its target even though its domestic emissions may exceed its assigned amount. The Kyoto Protocol recognises that reducing global greenhouse gas concentrations in the atmosphere can be achieved by reducing the quantity of greenhouse gases emitted or removing carbon dioxide presently in the atmosphere by increasing and maintaining carbon sinks (for example, managing forests).
- B7. For the period 2013-2020, developed countries have the option of signing up to a Second Commitment Period (CP2) under the Kyoto Protocol or taking their pledges under the Convention Track.

Negotiations for Future International Agreement

- B8. In December 2007, the United Nations Climate Change Conference in Bali culminated in the adoption of the Bali Road Map, which set the direction for securing a post-2012 agreement in Copenhagen in December 2009.
- B9. The Bali Road Map divides the negotiations into two tracks: the Ad-hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP), and the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention (AWG-LCA). The AWG-KP works on future commitments of Parties listed in Annex B to the Kyoto Protocol, while the AWG-LCA

works on a broad negotiation under the UNFCCC involving all countries (developed and developing) on matters relating to the Bali Action Plan. The Bali Action Plan includes developing a shared vision, including a long-term global goal and looks at ways to enhance mitigation, adaptation, technology and finance in the context of addressing climate change.

- B10. These two Ad-hoc Working Groups closed at the 18th Conference of the Parties (COP 18) in Doha in December 2012. Parties are now focussed on negotiating a new comprehensive global agreement applicable to all Parties by December 2015, to come into force in 2020. These negotiations are taking place under the Ad-hoc Working Group on the Durban Platform for Enhanced Action (ADP).

APPENDIX C: EUROSTAT 2013 MANUAL (GOVERNMENT DEFICIT AND DEBT) AND GFSM 2014

VI.6 Emission trading permits

VI.6.1 Background to the issue

1. Governments are increasingly turning to the issuing of emission permits as a means of controlling total emissions of polluting materials into the environment, and as an alternative to direct taxation of pollution.
2. Such emission permit schemes may operate in different ways, and may be either domestic or multi-country schemes. In the case of greenhouse gas emissions, the worldwide framework for control of such emissions was established in the United Nations Framework Convention on Climate Change, and notably in the setting of emission targets for participating countries in the Kyoto Protocol, adopted in 1997. This established binding national emission targets for participating countries (including the European Union) for the period 2008-2012.
3. The Kyoto Protocol established three market-based mechanisms through which countries may reach their targets. The main mechanism allows trading between countries of "Assigned Amount Units" (AAUs), which were originally allocated based on 2008-2012 commitments. The other mechanisms (Clean Development Mechanism and Joint Implementation) allow the creation of new types of instruments – interchangeable with AAUs – that reflect emission-reducing projects in developing and eligible countries respectively.
4. In the European Union the principal scheme for emission permits is the Emission Trading System (ETS)⁵⁶. Launched in 2005, the ETS works on the "cap and trade" principle. This means there is a "cap", or limit, on the total amount of certain greenhouse gases that can be emitted by the factories, power plants and other installations in the system. Within this cap, companies receive emission allowances which they can sell to or buy from one another as needed. The limit on the total number of allowances available ensures that they have a value, and the number of allowances is reduced over time so that total emissions fall.
5. At the end of each year each company must surrender enough allowances to cover all its emissions, otherwise heavy fines are imposed. If a company reduces its emissions, it can keep the spare allowances to cover its future needs or else sell them to another company that is short of allowances.
6. The huge volume of emission permits issued and traded in the European Union, and the increasing number of auctions of permits by EU governments, have led to the need for clarity on the statistical recording of such permits.

VI.6.2 Treatment in national accounts

7. The payments for emission permits, issued by governments under cap and trade schemes, should be recorded as other taxes on production (D29), on an accrual basis in the year of surrender of the permits. Permits issued for free do not give rise to entries in government accounts.
8. The timing difference between the cash payments received by government for the permits and the time of recording of the tax revenue in national accounts gives rise to a financial liability (accounts payable – AF79) for government and a financial asset (accounts receivable – AF79) for the holder.

9. In the absence of precise information on individual permits (including their original sale price), the level of tax revenue to be recorded in any particular year shall be determined by a model as follows:

$$\text{Tax revenue} = [\text{Number of permits surrendered}] \times [\text{Average auction price of stock of permits}]$$

10. The average auction price of stock of permits, calculated using data (on total relevant stock of AF79 payable and number of "live" domestically issued permits) as close as possible to (but before) the surrender date for permits, is determined as follows:

$$\text{Average auction price} = [\text{Total stock of AF79 payable relating to sales of permits}] \text{ divided by } [\text{Total number of domestically-issued permits which have not yet been surrendered}]$$

11. It is necessary that the sum of the tax revenues recorded over time in the accounts should be equal to the sum of auction proceeds received by government (ensuring that emission permits issued for free do not have an impact on the government accounts). If it becomes apparent that the number of surrendered permits is significantly above or below the number of issued permits (leading either to a rapidly growing or shrinking stock of AF79 payables for government), entries should be made in other changes in volume of assets to increase or reduce the stock of AF79 payables to bring the model back into balance. This re-assessment should take place at the end of each phase of the ETS, or earlier if the remaining stock of AF79 payable in relation to emission permits falls below zero.
12. The difference between the pre-paid tax value of the permit and the market value of the permit represents a marketable contract (non-produced non-financial asset⁵⁷) for the holder, and has no implications for government accounts.
13. In the case of transactions of governments in Assigned Amount Units (AAUs), these should be recorded as purchases and sales of non-produced non-financial assets (transaction code K2) at the time at which they take place.

VI.6.3 Rationale of the treatment

14. Neither ESA95 nor SNA 1993 contain specific guidance on the statistical recording of emission permits. The SNA 2008 (paragraph 17.363) mentions the issue as follows:

Governments are increasingly turning to the issuing of emission permits as a means of controlling total emissions. These permits do not involve the use of a natural asset (there is no value placed on the atmosphere so it cannot be considered to be an economic asset) and are therefore classified as taxes even though the permitted "activity" is one of creating an externality. It is inherent in the concept that the permits will be tradable and that there will be an active market in them. The permits therefore constitute assets and should be valued at the market price for which they can be sold.

15. Following a Eurostat/OECD Task Force in 2009-2010, the ISWGNA made recommendations which were subsequently endorsed – after a consultation of the Advisory Expert Group on national accounts – by the United Nations Statistical Commission and published in SNA News numbers 30/31 and 32/33. This section is based on the agreed worldwide recording for emission permits under cap and trade schemes.
16. The starting principle for the worldwide agreement was that payments for emission permits issued under cap and trade schemes should be recorded as taxes recorded at the time that the emission took place. More specifically it is considered that such payments should be recorded as other taxes on production.
17. The detailed treatment, as described in the SNA News and Notes, is as follows:
- The payments for emission permits, issued by governments under cap and trade schemes, should be recorded at the time the emissions occur as taxes, specifically other taxes on production (D29), on an accrual basis. The timing difference between the payments received by government for the permits and the time the emission occurs gives rise to a financial liability (accounts payable) for government and a financial asset (accounts receivable) for the holder. The difference between the pre-paid tax value of the permit and the market value of the permit represents a marketable contract (non-produced non-financial asset) for the holder. The creation and disappearance of the non-produced non-financial asset are recorded as another change in volume of assets.

18. Whilst the time of recording to be applied to the tax revenue – respecting the accrual principle – should be when the economic activity generating the pollution takes place, the worldwide agreement allows for a simplification, which prevents the potential complications associated of revenue flows when there is a delay between time of pollution and time of surrender:

In practice, however, it can be assumed, for simplicity, that the time the permit is surrendered is the same as the time that emissions occur, as long as there is no significant lag between the two events and the lag is constant.

19. Within the EU Emission Trading System, permits are surrendered within around four months of the end of the year to which they relate, and therefore the time lag is relatively short. At the same time - in the absence of a ground-breaking pollution reduction technology - the difference between emissions in one year and the next may not be so significant, and therefore surrendered permits in any year could potentially be taken as a reasonable proxy for emissions in that year. For the purposes of harmonised recording across countries, this Manual therefore proposes to use the surrender date time of recording.

20. In theory the recording should be applied at the level of the individual permit. Nevertheless, it is clear that the required information for such a treatment is rarely, if ever, available, particularly in a multinational scheme where permits may be freely traded across national borders, and surrendered in another country from where they were issued. At the same time, there are potential complications with measuring cross-border flows. The international agreement, as described in SNA News and Notes, therefore introduced two practical simplifications:

The approach to accruing payments for emission permits should be based on the underlying assumption that permits issued by a particular country are more likely than not to be surrendered in that country.

In the simple case of a pure national scheme, the taxes should be accrued in the following way. The tax recorded for any single permit surrendered in relation to emissions that occurred in period t is equivalent to the total stock of relevant other accounts payable divided by the total number of active permits issued (and remaining in circulation) at time t . The relevant other accounts payable should in theory exclude any permits that were surrendered after time t in respect of emissions that occurred before time t . Equally, the total number of active permits (and remaining in circulation) at time t , should also exclude these permits.

21. The approach in this Manual, as described above, is therefore based on these simplifications. There are in principle no cross-border flows to be recorded for taxes on production in relation to emission permits⁵⁸. It is also consistent with the principle described in section II.2 of this manual that the impact on general government net lending/borrowing of taxes shall be equivalent over a reasonable period of time to the corresponding amounts actually received.

22. As SNA News and Notes acknowledges, in a multinational scheme it is possible that over time the number of permits issued and surrendered in any country may deviate. Two approaches are suggested to deal with this:

- In countries that issue more permits than are surrendered ... in practice it is easier to ignore these flows and instead write off the permits (at the end of the permit's lifetime) in the issuing country's accounts as another change in volume of assets, (K22), as if they were unused.
- For those countries where fewer permits are surrendered in the country than issued, payments received exceeds taxes recorded. Setting aside the issue of recording flows of taxes on production from the R.O.W, the scope for payments received to exceed taxes recorded remains as not all permits will necessarily be surrendered, especially those purchased by environmental groups. Moreover for countries that issue significantly more permits than are expected to be surrendered in that country, a strong case can be made for considering the difference between payments received and taxes recorded as a windfall of sorts, akin to another change in volume of assets, even if theoretically they should be recorded as a tax on production from the R.O.W.

23. In order that this re-assessment is made in an orderly manner, it is appropriate to undertake it at the end of the last year of each “phase” of the EU Emissions Trading

Scheme, which is the point at which new allocations are established for emission permits and new rules may also enter into force. If the stock of AF79 payable entries falls below zero in any year, it will also be necessary to address the model to ensure that tax revenues continue to be equivalent over time with auction proceeds. The reassessment should be made to ensure the principle that tax revenues recorded should be equivalent over time to auction proceeds.

24. With regard to the quarterly recording of the revenues arising from emission permits, it is recommended that an investigation is made on the availability of data on quarterly emission, which can then provide a quarterly path for the annual calculation described above. Where these data are not available, it is possible to use a suitable proxy for the quarterly path, such as quarterly gross value added for the economy, where it can be considered to have some relationship to emissions.
25. The statistical recording of Assigned Amount Units is complicated by the fact that they were initially assigned for free to countries, are not subject to surrender as emissions are made, and cover a multi-year period. Nevertheless some governments (and some non-government units) are prepared to purchase AAUs from other governments, and therefore there are transactions to be recorded. By considering AAUs as non-produced non-financial assets, and by analogy with the treatment for market price changes of emission permits described above, such transactions are to be recorded as purchases and sales of non-produced non-financial assets. At the end of the life of such AAUs, when a Treaty target date is reached, they are to be removed from national accounts balance sheets through other changes in volume of assets.

GFSM 2014—Appendix 4 Section (d): Permits to use natural resources as sinks

c. Permits to use natural resources as sinks

A4.48 Governments may issue emission permits as a means of controlling total emissions. These permits do not involve the use of a natural asset (there is no economic value placed on the atmosphere so it cannot be considered an economic asset). However, it is inherent in the concept that these permits will be tradable and that there will be an active market for them.

A4.49 The payments for emission permits issued by government are treated as *taxes on the use of goods and on permission to use goods or perform activities* (11452), at the time the emissions occur. The timing difference between the payments received by government for the permits and the time the emission occurs gives rise to a transaction in financial liabilities classified as *other accounts payable* (3308) for government and a financial asset classified as *other accounts receivable* (3208) for the holder. The difference between the pre-paid tax value of the permit and the market value of the permit represents a marketable contract (nonproduced nonfinancial asset) for the holder. The creation and disappearance of the nonproduced nonfinancial asset are recorded as an other change in volume of assets.

A4.50 The case of payments for discharging water may be considered as an example of the different possible ways of treating the payments:

- If a payment to discharge water is a fine imposed by government intended to inhibit discharge, the fine should be treated as revenue for government classified as *finances, penalties, and forfeits* (143). If such a fine is imposed on government or public sector units by another institutional unit, the fine is included in expense, classified as *current transfers not elsewhere classified* (2821).
- If a limited number of permits are issued with the intent to restrict discharges, the payment should be treated as *taxes on the use of goods and on permission to use goods or perform activities*

(11452) if the medium into which the water is discharged is not regarded as an asset in macroeconomic statistics.

- If the medium into which the water is discharged is an asset and the necessary conditions are met concerning the terms on which the discharge is permitted, then the payment for the permit should be treated in the same way as the payment for a license to use the radio spectrum for mobile phones. If the payment is linked to remedial action, the payment is a payment for a service, unless the amount levied is out of proportion to the costs involved in subsequent water treatment in which case the payment should be treated as *other taxes on the use of goods and on permission to use goods or perform activities* (11452).

APPENDIX D: EXAMPLE QUESTIONNAIRE ON ETS FINANCIAL REPORTING

Emissions trading schemes

ASAF meeting December 2014

Dear ASAF members

At the upcoming meeting, Jane Pike and Natasha Dara will lead a 45-minute discussion on Emissions Trading Schemes. Our objective in this session is to identify schemes that are in place; the accounting that is currently applied to those schemes; and if that accounting is based on any formally issued guidance.

Although we have high-level current information about some emissions trading schemes in existence around the world, we would like to gather more information on the detail of the schemes and any accounting issues you may have encountered. As such, if there is an emissions trading scheme in place in your jurisdiction and you are willing to help in our research, it would be very helpful if you could fill out the following questionnaire to provide us with details of local schemes, and the accounting applied.

Please return this form to Natasha Dara (email: ndara@ifrs.org) by 17 November 2014. The responses to this questionnaire will help us to plan for the meeting and to enable us to have a more informed discussion.

Many thanks

Natasha and Jane

Please select or write in your answers, as relevant.

1. What type of scheme is in place?

- a. Cap and trade (a common scheme where a government issues tradable allowances to an entity's sources of emissions. Participants may buy and sell allowances, but at the end of a compliance period, are required to remit to the government allowances equal to their actual emissions.)
- b. Baseline and credit (a scheme where each source of emissions of an entity is assigned a specific emissions limit for a period. After the end of the period, actual emissions are compared to the limit. If emissions fall below the limit, tradable credits are issued in the amount of the difference. If emissions are exceeded, credits must be purchased to cover the excess.)
- c. Other
Please specify: _____

2. Is there another mechanism in place to reduce emissions? (Eg, a carbon tax)

3. Has there been any guidance issued in your jurisdiction that details how to account for these schemes? If so, please provide a very short summary and if there is a version in English, please send it to us.

4. How are the schemes accounted for? (Please see table in Appendix A)

- a. Approach 1
- b. Approach 2
- c. Approach 3
- d. Other

Please specify: _____

Appendix A Approaches applied in practice to account for cap & trade schemes

In the absence of authoritative guidance by the IASB, several approaches have developed that IFRS preparers apply to account for the effects of emissions trading schemes. A survey by PwC and the International Emissions Trading Association (IETA) identified as many as fifteen variations to account for the effects of EU ETS.¹² The following table highlights the three main approaches.

| | Approach 1 | Approach 2 | Approach 3 |
|---|---|------------|--|
| Initial recognition – <i>Allocated</i> allowances | Recognise and measure at market value at date of issue; corresponding entry to government grant. | | Recognise and measure at cost, which for granted allowances is nil . |
| Initial recognition – <i>Purchased</i> allowances | Recognise and measure at cost . | | |
| Subsequent treatment of allowances | Allowances are subsequently measured at cost or market value , subject to review for impairment. | | Allowances are subsequently measured at cost , subject to review for impairment. |
| Subsequent treatment of government grant | Government grant amortised on a systematic and rational basis over compliance period . | | Not applicable. |
| Recognition of liability | Recognise liability when incurred (ie as emissions are produced). | | Recognise liability when incurred (ie as emissions are produced). However, the way in which the liability is measured (see below) means that often no liability is shown in the statement of financial position until emissions produced exceed the allowances allocated to the participant. |

¹² See 'Trouble-entry accounting - Revisited: Uncertainty in accounting for the EU Emissions Trading Scheme and Certified Emission Reductions.' (http://www.ieta.org/assets/Reports/trouble_entry_accounting.pdf)

| | Approach 1 | Approach 2 | Approach 3 |
|--------------------------|---|---|---|
| Measurement of liability | Liability is measured based on the market value of allowances at each period end that would be required to cover actual emissions, regardless of whether the allowances are on hand or would be purchased from the market. | Liability is measured based on: the carrying amount of allowances on hand at each period end to be used to cover actual emissions (ie market value at date of recognition if cost model is used; market value at date of revaluation if revaluation model is used) on either a FIFO or weighted average basis; <i>plus</i> the market value of allowances at each period end that would be required to cover any excess emissions (ie actual emissions in excess of allowances on hand). | Liability is measured based on: the carrying amount of allowances on hand at each period end to be used to cover actual emissions (nil or cost) on a FIFO or weighted average basis; <i>plus</i> the market value of allowances at each period end that would be required to cover any excess emissions (ie actual emissions in excess of allowances on hand). |

INTERNATIONAL PUBLIC SECTOR ACCOUNTING STANDARDS BOARD

PROJECT BRIEF AND OUTLINE

1. Subject—Emissions Trading Schemes

- 1.1 This project will develop requirements and guidance on accounting for emissions trading schemes (ETS). The project will consider accounting for both administrators¹ and participants in ETS. The project will be principles-based. It will include discussion of the auctioning of allowances and permits to emit as well as allocation of such allowances and permits at no cost. As part of the project, guidance on ETS in the Government Finance Statistics Manual will be considered. It is proposed that the project is a joint project with the International Accounting Standards Board (IASB). The IPSASB would expect to lead on the requirements and guidance relating to public sector administrators of statutory ETS.
- 1.2 Existing IPSASs do not address the accounting for ETS. IFRSs also do not specifically address accounting for ETS. The International Financial Reporting Interpretations Committee (the IFRIC) issued IFRIC 3, *Emission Rights*, in December, 2004. IFRIC 3 addressed the accounting for the rights and obligations arising from participation in the European Union's (EU) ETS. Its scope did not include all types of ETS. The IFRIC concluded that, on the basis of existing IFRS pronouncements, allowances issued to participants under the EU scheme were intangible assets and should be accounted for in accordance with IAS 38, *Intangible Assets*, and that such assets should be measured at fair value. IFRIC 3 was withdrawn in June 2005. This was largely because the limited level of trading in EU scheme allowances meant that the need for accounting guidance had become less pressing. Withdrawal of IFRIC 3 was intended to allow a more comprehensive approach to accounting issues related to ETS to be developed by the IASB, rather than because the accounting specified in IFRIC 3 was considered defective.
- 1.3 The IASB initiated a project on ETS in late 2007 and this subsequently became a joint project with the Financial Accounting Standards Board. Considerable work was carried out and a staff research paper was developed and discussed by the IASB in 2010. This paper outlined the main types of scheme and identified a number of key accounting issues, particularly the measurement of obligations to emit by participants in receipt of allowances and baselines. In November 2010, the project was deferred until after the IASB's agenda consultation. Alison McManus of IASB Staff gave a presentation on accounting for ETS at the IPSASB's March 2012 meeting. In May 2012 the IASB added ETS to its research agenda.
- 1.4 While acknowledging that there are a number of variants, the IASB draft research paper identified and discussed the characteristics of two main types of ETS: (i) cap and trade schemes and (ii) baseline and credit schemes. In a cap and trade scheme, a central administrator (typically a government) sets an overall cap on the amount of emissions that can be released in a specified compliance period. This cap is then allocated to entities by the distribution of 'emission allowances'. The cap, and therefore the allowances, will normally be below the actual levels of emissions

¹ The term "administrator" is used rather than "grantor". Administrators issue allowances in cap and trade schemes and "caps" and "credits" in baseline and credit schemes

currently being made by entities, thus creating scarcity and making allowances valuable. Allowances in cap and trade schemes can be traded.

- 1.5 In a baseline and credit scheme the administrator allocates the cap in the form of baselines. The baseline provides an entity a right to emit up to a specified level. The baselines are assigned to a specific emitting source and, unlike allowances in cap and trade schemes, cannot be traded. The trading mechanism is introduced at the end of the reference period, when the administrator issues tradable 'credits' to entities that have emitted below their baseline. Conversely, the administrator requires entities that have emitted above their baseline to provide credits. This mechanism imparts scarcity and gives rise to a market.
- 1.6 Schemes may be further segmented into statutory or non-statutory schemes. Statutory schemes are government imposed and require mandatory participation of entities that emit greenhouse gases. Non-statutory schemes are voluntary in nature. Because of its remit the IPSASB's primary focus is on statutory schemes. However, non-statutory schemes will be covered from a participant's point of view. The IASB staff paper identified a number of statutory and non-statutory schemes.
- 1.7 In the Discussion Paper, *A Review of the Conceptual Framework for Financial Reporting*, the IASB considered when present obligations and liabilities arise for the recipients of allowances in cap and trade schemes in the context of obligations where the requirement to transfer economic resources is dependent on the occurrence one or more future events that depend on the reporting entity's future actions. The IASB has not formed a view on when liabilities arise where the requirement to transfer an economic resource. The IASB has, however, rejected the view that obligations must be strictly unconditional in order for a present obligation and a liability to exist.
- 1.8 Many governments have introduced ETS in order to reduce greenhouse gas emissions in their jurisdictions. In a number of cases this was in response to, or related to, the Kyoto Protocols, which were ratified in 2005 with a first commitment period covering 2005-2012 (the United States did not ratify the Protocols and Canada withdrew in 2011). The second commitment period is for 2013-2020, although this has not been legally ratified. Under the Kyoto Protocol, 37 industrialized countries and the European Union committed themselves to binding targets for greenhouse gas emissions.
- 1.9 A government could set up, and be the administrator of, a scheme which involves it issuing permits or allowances to emit to participants of the scheme, facilitate a trading mechanism for the permits or allowances and reconcile the surrender of permits or allowances at the end of the commitment period. A public sector entity could also be a participant in a scheme where it is an emitter of greenhouse gases. This project includes in its scope the accounting treatment for both types of transactions or other events.
- 1.10 The project will also consider whether obligations under the Kyoto Protocol and other international treaties or accords could give rise to a liability of a national government.
- 1.11 There are certain similarities with the IPSASB's approach to service concession arrangements. In the service concession arrangements project the IPSASB developed requirements and guidance for administrators of concession arrangements. The IPSASB adopted an approach that was underpinned by the control model and "mirrored" the requirements for operators in IFRIC 12, *Service Concession Arrangements*. While symmetrical approaches are not always feasible and may not always be desirable, the approach sought to minimize misalignments between operators' and administrators' accounting.

2. Project Rationale and Objectives

- 2.1 Guidance on how to account for ETS from the perspective of an administrator appears limited. The New Zealand Treasury has developed accounting policies for ETS for the consolidated New Zealand Government Financial Statements and the New Zealand Controller and Auditor General has produced guidance on the operation and accounting and auditing of ETS. The development of accounting requirements will enhance the global consistency and comparability of resources and obligations related to ETS in the financial statements of public sector entities
- 2.2 For private sector entities that are participants in an ETS there are a number of accounting models that are currently in use. This diversity in practice was one of the reasons that the IASB and the FASB initiated a joint project on this topic and why the IASB has a Research Project in its Work Plan. By analogy, a public sector entity that is a participant in a scheme could select one of these accounting models. The IPSASB should also include the accounting treatment for participants in an ETS in order to avoid diversity of accounting treatments for public sector entities.

(a) Issues identified

- 2.3 There are a number of issues that will need to be considered in this project. These issues include:

Administrators

- Do Kyoto Protocol Units (also known as assigned authorized units (AAUs) under the New Zealand scheme) issued to national governments under the Kyoto Protocol meet the definition of an asset?
- If Kyoto Protocol Units are an asset what is the nature of the asset and how should they be measured?
- Do obligations of national governments under the Kyoto under the Kyoto Protocol and other international treaties or accords give rise to liabilities?
- Do allowances (baselines) to emit that are issued to participants without charge give rise to an expense and liability of the administrator? If so, how should such liabilities be measured and at what point does the expense/liability arise?
- Does revenue arise when participants surrender allowances to the administrator? If so, what is the timing of the recognition of such revenue?

Participants

- Are allowances and baselines assets of the participant entity?
- How should such assets be measured both at initial recognition and subsequently? Does the manner in which the participant entity acquired the allowances -purchased or allocated at no cost by the administrator-affect measurement?
- When should a liability be recognized for emissions in excess of allowances or baseline-actual or expected basis?
- Should the presentation of assets and liabilities be on a gross, net or linked basis?

(b) Objectives to be achieved

- 2.4 The ultimate objective of the project is to issue one or more IPSASs on ETS covering both public sector administrators and public sector participants.
- 2.5 The intermediate objective is to produce a Consultation Paper. The Consultation Paper will identify the main statutory ETS schemes and their key characteristics, the main accounting issues and the viable options for accounting treatments and presentation for ETS. It will provide preliminary views where IPSASB is able to formulate such views.

(c) Link to IFAC and IPSASB Strategic Plans

i. Link to IPSASB Strategy

- 2.6 One of the IPSASB's continuing strategic priorities for the period 2012–2014 is public sector critical projects. These include both public sector specific and IFRS convergence projects. The proposed project is a hybrid. The development of requirements and guidance for public sector administrators of statutory ETS is a public sector specific project. The development of an accounting treatment for public sector entities that are participants in an ETS is likely to be an IFRS convergence project, although the project will consider whether there are any issues specific to public sector participants.

ii. Link to IFAC Strategic Plan

- 2.7 The IFAC Strategic Plan for 2011–2014 includes two strategies that are relevant. The first is IFAC's commitment to the development, adoption and implementation of international standards, including those for the public sector. The second is an enhanced focus on public sector financial reporting. Developing requirements and guidance for ETS supports both strategies.

3. Outline of the Project

(a) Project Scope

- 3.1 The scope of this project is to determine the appropriate accounting treatment for the:
- 3.1.1 Administrators of an ETS; and
- 3.1.2 Participants in an ETS.

(b) Key Issues

- 3.2 A number of key issues are set out below. The list is not exhaustive.

Key Issue #1—Scope of the schemes covered by the project?

- 3.3 The IASB identified two main types of scheme- cap and trade schemes and baseline and credit schemes (see paragraph 1.4 of Section 1). The project will consider whether there are other types of ETS that should be within the scope of the project such as command and control schemes.

Key Issue #2—At what point do present obligations and liabilities arise for administrators and participants and how should liabilities be measured?

- 3.4 A key issue is to determine when present obligations and liabilities arise for both administrators and participants under schemes within the scope of the project (see paragraph 2.3 of Section 2)

Key Issue #3—When do assets arise for administrators and participants and how should assets be measured?

- 3.5 A key issue is to determine when asserts arise in the schemes within the scope of the project and how those asserts are measured

Key Issue #4—What disclosures should be required?

- 3.6 A key issue is what disclosures should be required for administrators and participants taking into account the qualitative characteristics and constraints on financial reporting

4. Describe the Implications for any Specific Persons or Groups

(a) Relationship to IASB

- 4.1 It has been agreed that the first phase will be a joint project with IASB. At present ETS is on the IASB's research agenda and there is little likelihood of it being moved to the active agenda in advance of a further consultation on the IASB's Work Plan.

(b) Relationship to Other Standards, Projects in Process or Planned

- 4.2 The project is linked to the Conceptual Framework projects of both the IASB and the IPSASB, particularly the definitions of an asset and a liability and the timing of present obligations where obligations are conditional on future events, which are dependent on an entity's future actions. Dependent upon the outcome of the ETS project, there may be implications for several IPSASs, including IPSAS 23, *Revenue from Non-exchange Transactions (Taxes and Transfers)* and IPSAS 31, *Intangible Assets*. As the project develops, potential implications for other IPSASs may also be identified. At this stage (May 2013), there are no IASB pronouncements that are relevant to this project.

(c) Other—Government Finance Statistics

- 4.3 The IPSASB has recently reaffirmed the importance of reducing differences with the statistical basis of reporting where appropriate with the publication of a Consultation Paper, *IPSAS and Government Finance Statistics Reporting Guidelines*. This project will consider requirements and guidance on accounting for ETS under the statistical basis of reporting for both administrators and participants. It will assess whether there are opportunities for reducing differences in accounting treatments.

5. Development Process, Project Timetable and Project Output

(a) Development Process

- 5.1 The development of outputs will be subject to the IPSASB's formal due process. The issuance of documents for public comment will be subject to the usual IPSASB voting rules. As the project progresses, regular assessments will be made to confirm the proposed path in the project timetable remains the most appropriate.

(b) Project timetable

| Major Project Milestones | Expected Completion |
|--|----------------------------|
| Present draft Project Brief | December 2013 |
| Undertake further research on types of schemes (January 2014–March 2014) | |
| Discussion of issues and development of a Consultation Paper (CP) (April 2014–December 2014) | |
| Approve CP (6 month comment period) | December 2014 |
| Review of responses to CP and development of an Exposure Draft (June 2015–March 2016) | |
| Approve ED (4 month comment period) | March 2016 |
| Review of responses to ED and development of a IPSAS | |
| Approve Final IPSAS | Late 2016/Early 2017 |

(c) Project output

5.2 The initial output will be a Consultation Paper. Following analysis of the responses to the Consultation Paper an Exposure Draft (s) will be developed. The ultimate output will be an IPSAS (or IPSASs).

6. Resources Required

(a) Task Based Group

6.1 A Task Based Group will assist in providing information on the broad range of ETS, to evaluate accounting options and to oversee the project.

(b) Staff

6.2 It is envisaged that 0.5 Full Time Equivalent (FTE) will be required to resource the project.

(c) Factors that might add to complexity and length

6.3 Factors that might add to the complexity and length of the project include:

6.3.1 Joint working with IASB will facilitate a high quality product and reduce the likelihood of differences in accounting treatments that are not justified on public sector grounds, but will require detailed planning, coordination and communication.

6.3.2 The wide range of ETS and the extent to which they can be classified in a manner that provides meaningful information for users;

6.3.3 The relative lack of existing guidance on ETS, in particular guidance relating to administrators; and

6.3.4 The interaction between this project and the development of the Conceptual Framework. .

7. Important Sources of Information

7.1 Potential sources of information regarding ETS include:

- 7.1.1 The draft IASB Staff Research Paper developed and discussed in 2010.
- 7.1.2 The Financial Statements of the Government of New Zealand.
- 7.1.3 Controller and Auditor-General of New Zealand. *The Emissions Trading Scheme-Summary Information for Public Entities and Auditors.*
- 7.1.4 Parliament of Australia, Issues Paper, Emissions Trading Schemes Around the World (2012)
- 7.1.5 The Government Finance Statistics Manual (2001) (revision expected shortly).
- 7.1.6 The System of National Accounts (SNA) 2008.

STAFF PAPER

November 2014

Education Session

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|--------------------|----------------------------------|----------------|---------------------|
| Project | Emissions Trading Schemes | | |
| Paper topic | Cover memo | | |
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Introduction

- 1 Staff were allocated to start a research project on Emissions Trading Schemes during 2014 and have been conducting research on the topic. This research has shown that there are diverse accounting approaches in use today.
- 2 The purpose of this Education Session is to provide the IASB with background about how emissions trading operate and the accounting issues that relate to them. The staff are not seeking decisions from the IASB at this meeting but, instead, are seeking preliminary input about the potential scope of the project.
- 3 The staff will present the following papers:
 - (a) Agenda Paper 1 provides background information on two common types of emissions reduction schemes: ‘cap and trade’ and ‘baseline and credit’.
 - (b) Agenda Paper 2 discusses some accounting issues identified to date.

STAFF PAPER

November 2014

IASB Meeting

Education Session

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|--------------------|----------------------------------|--|---------------------|
| Project | Emissions trading schemes | | |
| Paper topic | Background scheme information | | |
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Introduction

- 1 The purpose of this paper is to provide background information about how emissions reductions schemes operate in order to support the description of the related accounting issues contained in Agenda Paper AP6B. This paper does not contain any questions for the IASB.
- 2 This agenda paper contains:
 - (a) an outline description of two common types of emissions trading schemes;
 - (i) cap and trade scheme (¶7–¶17)
 - (ii) baseline and credit scheme (¶18–¶20)
 - (b) a comparative analysis of the schemes (¶21–¶28); and
 - (c) a brief note about other emissions reduction mechanisms (Appendix).

Description of the schemes

- 3 In the IASB's previous Emissions Trading Schemes project, the discussions focussed on the main type of emissions reduction scheme that involves tradable instruments, that is, a cap and trade scheme.¹
- 4 Another type of scheme, a baseline a credit scheme, has similarities to a cap and trade scheme but there are notable differences, which we highlight in this paper.
- 5 In researching how the operation of these schemes has changed since the previous project was suspended, the staff have identified other types of emissions reduction mechanisms. In some jurisdictions the alternative mechanisms are used instead of an emissions trading scheme. In other cases, the mechanisms are used to supplement a trading scheme.
- 6 At this time, the staff have not researched these alternative mechanisms in sufficient detail to provide an analysis of the accounting issues. Consequently, the main types of mechanisms are outlined in the Appendix for information only. We will bring a more detailed description and analysis of the related accounting issues to the IASB at a later date.

Cap and trade schemes – EU ETS²

- 7 Cap and trade schemes were, and continue to be, predominant, with the European Union Greenhouse Gas Emission Trading Scheme (EU ETS), which started in 2005, as the largest scheme in the world. The description of cap and trade schemes in this paper focuses on the EU ETS.³

¹ A short summary of the project is included in Agenda Paper 6B.

² This document does not cover all aspects of the EU ETS and should not be taken as being a comprehensive guide. European Financial Reporting Group (EFRAG) staff have kindly contributed to the research of this scheme but any errors in the description provided are the responsibility of IASB staff.

³ Further information about the EU ETS is available on the [website](http://ec.europa.eu/clima/publications/docs/factsheet_ets_en.pdf) of the European Commission. In particular, a fact sheet can be downloaded at http://ec.europa.eu/clima/publications/docs/factsheet_ets_en.pdf

- 8 In a cap and trade scheme, a ‘scheme administrator’ (eg a government body of each EU Member State) sets an overall cap on the amount of particular greenhouse gas or other emissions that may be released by participants in the scheme during specified time periods, known as ‘commitment periods’. Participants operate the factories, power plants and other installations covered by the scheme (the ‘covered installations’). Over time, the overall cap is reduced to achieve the desired reduction in overall emissions.
- 9 In the EU ETS, the current commitment period (known as ‘Phase III’) runs from 2013 through 2020. The commitment period is divided into annual ‘compliance years’, which run from 1 January through 31 December. At the start of the compliance year, the scheme administrator issues the number of emissions allowances that equals the volume of the overall cap. Each emissions allowance offsets or ‘pays for’ a designated unit of regulated pollutant (eg under the EU ETS, one emissions allowance is equivalent to one tonne of carbon dioxide (CO₂)). Once allowances are used and remitted back to the government, they are cancelled and cannot be used again.
- 10 Within the overall cap, participants receive or buy emissions allowances, which they can trade with one another as needed. The scheme administrator uses an ‘allocation plan’, which identifies the number of emissions allowances that are granted free of charge to individual participants and the number that are sold or auctioned in the market place.
- 11 Under the EU allocation plans, the scheme administrators currently allocate the majority of the emissions allowances free of charge to the participants. The allocation of free allowances is intended to ease the transition process for participants but the number of free allowances will reduce over time.
- 12 In the EU ETS, emissions allowances are allocated as at 1 January and are delivered to participants by the end of February in each respective compliance year. By April of the following year, participants have to remit emissions allowances equal to their level of emissions during the compliance year. Harsh fines are imposed for any shortfall in allowances remitted by the due

date. However, the imposition of a penalty does not remove the obligation to remit the required allowances.

- 13 Allowances are allocated on an annual basis but their use is not restricted to a particular year. Consequently, if a participant reduces its emissions below its cap, it can ‘bank’ the spare allowances to cover its future needs or sell them to another participant or trader. Alternatively, if a participant has produced emissions above its cap, it can either buy allowances in the market or it can borrow allowances from the following compliance year’s allocation (ie the participant may use allowances for compliance year 2 to settle obligations for compliance year 1). This borrowing is possible because the next year’s allowances are delivered in February, but the preceding year’s obligation is settled in April.
- 14 The EU ETS also allows ‘project-based certificates’ to be remitted in lieu of emissions allowances in fulfilment of a limited percentage of an entity’s emissions obligation. Generally, third-party providers undertake these projects to reduce emissions in regions outside the jurisdiction of the EU ETS and either use the resulting certificates to settle their own obligations or sell the resulting certificates on the open market to EU ETS scheme participants. The staff understand that certificates typically trade at a lower price than emissions allowances, primarily because of the limitation on the number of certificates that may be remitted. The use of such project-based certificates is becoming increasingly limited in the EU ETS scheme, but they are still usable in ETS schemes in other jurisdictions.⁴

Some other features of cap and trade schemes

- 15 This Agenda Paper focuses on the features of the EU ETS. Other cap and trade schemes have different features, which will be considered in due course later in the project.

⁴ Projects-based certificates are generally issued as part of a results-based financing programme (see Appendix).

- 16 For example, in the United States' Acid Rain Program, allowances to emit sulphur oxides have been allocated for a period covering 30 compliance years. Each allowance has a 'vintage year' designation, indicating the first compliance year in which it may be used to offset emissions. Participants have in their accounts allowances with vintage years extending beyond the year 2030 that they may trade today, and those allowances may be carried forward ('banked') indefinitely. In contrast, in the EU ETS, allowances do not have vintage years because they only issued at the beginning of each compliance year and can be used to fulfil the current as well as future remittance obligations.
- 17 Some schemes allow participants to make up for a shortfall in allowances by paying into an environmental fund or making another form of a penalty payment. Again, this contrasts with the EU ETS, in which the imposition of a penalty does not remove the obligation to remit the required number of allowances.

Baseline and credit schemes

- 18 Baseline and credit schemes differ from cap and trade schemes in at least one important way. Instead of issuing emissions allowances equal to the cap before or near the beginning of the compliance year, the scheme administrator assigns a 'baseline' to establish the emissions limit for each covered installation in the scheme.⁵
- 19 A participant may emit up to the level of the baseline without incurring additional costs. At the end of the compliance year, if a covered installation's emissions:
- (a) are below its baseline, 'credits' equal to the difference are issued; or

⁵ The baseline may be set as a fixed quantity of emissions or it may be variable, based on some measure of output. This Agenda Paper focuses on schemes with fixed baselines, because of their similarities to cap and trade schemes.

- (b) exceed its baseline, the participant has to purchase and surrender ‘credits’ equal to the excess.
- 20 The period of time between the issuance of credits and the deadline for remitting them is relatively short (usually only a few months), and thus trading activity is generally more limited than in a cap and trade scheme.

Comparative analysis of the schemes

- 21 Cap and trade schemes and baseline and credit schemes are both mechanisms to limit emissions. Usually, the goal of a scheme is to reduce the level of emissions produced by restricting a previously unrestricted emissions-producing activity. The initial cap or baseline that is allocated free of charge is usually set below the existing level of emissions, which is measured using historical data. The free allocation is then further reduced over time. This restriction in free emissions levels creates a new cost for activities that were previously free.
- 22 Under a cap and trade scheme, the free allocation of emissions allowances represents an amount of emissions that can be produced without incurring additional costs. The allocated emissions allowances can therefore be seen as establishing a baseline of emissions similar to the actual baseline in a baseline and credit scheme. Only if a participant’s emissions exceed the established baseline will it incur additional costs. Hence, all other things being equal, participants in cap and trade schemes and in a comparable baseline and credit scheme are in a similar position if the level of allocated emissions allowances is equal to the assigned baseline.
- 23 The schemes differ in how the trading mechanisms are implemented. This affects the availability and liquidity of tradable instruments in the market. As outlined in the following paragraphs, baseline and credit schemes may have limited liquidity due to the smaller number of tradable instruments that trade for a shorter period of time. However, in a baseline and credit scheme that allows for banking of the credits to use in future compliance periods, the trading window will expand over time.

- 24 The number of tradable instruments issued under a baseline and credit scheme will be much smaller than under a comparable cap and trade scheme. For example, a utility with a baseline of 80,000 tonnes and actual emissions of 70,000 tonnes would receive 10,000 emission credits under a baseline and credit scheme. In contrast, in a cap and trade scheme in which the emissions cap is 80,000 tonnes, the administrator would issue 80,000 emissions allowances.
- 25 The scheme differences also affect the timing of when allowances or credits can be traded. In a cap and trade scheme, the emissions allowances are allocated at, or shortly after, the beginning of a compliance period. A participant may start spot trading upon receipt of the emissions allowances.⁶ In a baseline and credit scheme, tradable instruments are generated only if the emissions of a participant are below its baseline. Those credits will not be issued until after the end of the compliance period.

Forward contracts

- 26 The availability of forward markets could make baseline and credit schemes more equivalent to cap and trade schemes. Upon receipt of its allocated allowances, a participant in a cap and trade scheme may sell the allowances in the market. If the participant is expected to continue to emit, it can simultaneously enter into forward contracts to buy back the number of allowances it expects to remit at the end of the period. If the forward rates adequately reflect the cost of carry, the agreed forward price exceeds the sale price by the financing costs. Essentially, the participant enters into a secured loan.
- 27 In contrast, a participant in a baseline and credit scheme cannot trade the baseline, because it is applicable only to the specific covered installation. However, a participant expecting an excess or a shortfall of credits in the

⁶ EU ETS emissions allowances exist only in the form of electronic records on a single EU registry. The receipt or 'physical delivery' means the transfer of an emissions allowance on the EU registry into a participant's account.

compliance period may enter into forward contracts. A forward contract enables scheme participants to sell or buy credits at a certain date in the future, at an agreed price. Hence, participants can effectively sell (part of) their baseline. The ‘physical delivery’ of credits takes place when the participants receive the credits from the scheme administrator after the end of the compliance period.

- 28 Consequently, some consider that the accounting for baseline and credit schemes should be the same as cap and trade scheme that are designed to achieve the same objective.

Appendix: Other emissions reduction mechanisms

Some governments use other mechanisms to achieve emissions reductions, either instead of, or in addition to, schemes that use the trading of emissions allowances and credits. These mechanisms aim to reduce or mitigate emissions by putting a price on them. These are often called ‘carbon pricing’ instruments, but may cover other types of emissions, not just carbon dioxide. The staff will conduct further research into how these mechanisms work in order to try to identify their financial effects and what accounting issues, if any, may need to be considered.

Carbon taxes

Carbon taxes place a price on carbon, using a metric based on carbon (eg price per tonne of CO₂ or equivalent (tCO₂e)). 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

Results-based financing is a financing approach employed to support development objectives and policy goals. In particular, such a financing approach is increasingly being used for the provision of international support, for example, for Reducing Emissions from Deforestation, Forest Degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks (REDD+). In such cases, carbon prices elements are using carbon as a metric to channel climate finance transfers.⁷

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 emissions trading scheme to which the contributor is a participant, instead of credits or allowances issued by that scheme (see paragraph 14 for ‘project-based certificates’ in the EU ETS).

⁷ World Bank, 2014, State and Trends of Carbon Pricing 2014, Washington, DC: World Bank.

STAFF PAPER

November 2014

Education Session

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|--------------------|----------------------------------|--|---------------------|
| Project | Emissions trading schemes | | |
| Paper topic | Summary of accounting issues | | |
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Purpose of the paper

1. The purpose of this paper is to provide the IASB with a summary of the accounting issues that staff have identified as relevant to consider in the emissions trading schemes project. Background information about how emissions trading schemes operate is contained in Agenda Paper 6A. The staff are not seeking decisions from the IASB at this stage but, instead, are seeking preliminary input about the potential scope of the project. The staff will use the IASB's input, along with that of the ASAF, to develop a project plan to bring to the IASB at a future meeting.
2. This agenda paper includes some background about the accounting issues identified to date:
 - (a) Background on previous IASB projects on emissions trading schemes.
 - (b) Summary of accounting issues.
 - (c) Appendix A: Summary of IFRIC 3 *Emissions Trading Schemes*.
 - (d) Appendix B: Decisions made in the previous IASB project.
 - (e) Appendix C: Common accounting approaches currently being used.

Background on previous IASB projects

3. The prevalence of emissions trading schemes increased as a result of the adoption of the Kyoto Protocol¹ in 1997. The main type of scheme employed was the cap and trade scheme. The European Union's Emissions Trading Scheme (the EU ETS), which started in 2005, became, and currently remains, the largest cap and trade scheme in operation.
4. In December 2004 the IASB issued IFRIC 3 *Emission Rights*. This was intended primarily to address the accounting for cap and trade schemes such as the EU ETS, with an acknowledgement that it may be relevant to other types of schemes. However, IFRIC 3 was withdrawn in 2005 because many did not think that the accounting mismatches that it created, both in recognition and measurement bases, were appropriate (see Appendix A).
5. After the withdrawal of IFRIC 3, the IASB initiated a joint project with the US Financial Accounting Standards Board (FASB) to find a better solution. This project again focused on cap and trade schemes and the Boards reached some tentative decisions about what the assets and liabilities in the scheme were, when to recognise them, and how to measure them (see Appendix B). However, the project was suspended in 2010 due to time and resource constraints.
6. In the absence of authoritative guidance from the IASB, several approaches have developed to account for the financial effects of emissions trading schemes. A 2007 survey by PwC and the International Emissions Trading Association (IETA) identified as many as fifteen variations of accounting. These variations can be categories into three main approaches, which are summarised in Appendix C.² Each of these approaches avoid the mismatches created by IFRIC 3 but they result in different accounting outcomes. This significantly reduces comparability between entities.

¹ An international agreement which committed its 37 industrialised countries and the European Community to setting internationally binding emission reduction targets. (*United Nations Framework Convention on Climate Change* website)

² See 'Trouble-entry accounting - Revisited: Uncertainty in accounting for the EU Emissions Trading Scheme and Certified Emission Reductions.' (http://www.ieta.org/assets/Reports/trouble_entry_accounting.pdf)

Summary of the main accounting issues

7. Cap and trade schemes remain the most prevalent type of emissions reduction trading mechanism and so this paper will focus primarily on them. Another common type of scheme, the baseline and credit scheme, has many similar issues. This paper just highlights the accounting issues relating to the main difference between the schemes.
8. In both types of scheme, the tradable instruments can be traded both by participants in the scheme, ie entities that emit and are covered by the scheme, and by broker/dealers who do not emit but trade the instruments for profit. This paper focuses on the accounting issues facing participants because, in the staff's view, the accounting for broker/dealers is unlikely to raise any distinct accounting issues.
9. The summary of accounting issues considers the accounting for assets and liabilities separately. However, this was the approach taken in the development of IFRIC 3 and, in the staff's view, was the driver for the mismatches that many argued did not faithfully represent the economic reality of the schemes.
10. As a result, the staff think that it is important for the IASB to consider the net position of the entity under the scheme, that is, to view the scheme as the unit of account. Any accounting model developed should, in our view, reflect the net overall effect of the scheme, even if the individual components of the scheme are presented separately. This view was strongly expressed by members of the Global Preparers Forum in their November 2014 meeting. It is also the basis for the common accounting approaches identified in practice (see Appendix C).
11. Many of the accounting issues are indicated by the information in Appendices A-C. The remainder of this paper provides more detail to those issues that the staff think will require the most detailed consideration through the project.

Cap and trade schemes

12. Cap and trade schemes employ a trading mechanism by issuing tradable instruments called emissions allowances³, at the beginning of a compliance period. A scheme participant must remit allowances to the government in an amount equal to the amount of emissions produced.⁴
13. At the beginning of a compliance period, the designated scheme participants either receive allocated allowances free of charge and/or purchase allowances through a scheme auction. At the end of the compliance period, each participant verifies its volume of emissions and must remit the equivalent amount of allowances to the scheme administrator.
14. In the extreme, a participant could sell all of its allowances immediately after they are allocated (ie on the first day of the period), in the expectation that it will either (a) buy allowances equal to actual emissions at a later date or (b) cease to emit (eg by switching to technology that eliminates emissions or by ceasing to operate).⁵

Should the allowances be recognised as assets?

15. Participants can obtain emissions allowances by:
 - (a) receiving an allocation of them free of charge, from the government;
 - (b) buying them from the government, either at a fixed price or at a market price determined through an auction; or
 - (c) buying them in the market, either from other participants in the scheme or from traders.
16. In the deliberations leading to the issue of IFRIC 3, the Interpretations Committee concluded that an allowance that is purchased is an asset that should be recognised.

³ In this paper, we use the term ‘allowances’ (for cap and trade schemes) and ‘credits’ (for baseline and credit schemes) to denote the tradable instruments issued for use in the schemes. Other literature may use other terms (eg offsets, certificates, permits or rights) to mean the same.

⁴ In a baseline and credit scheme, the participant must remit credits to the government in an amount equal to the excess of emissions produced above the designated baseline.

⁵ Some schemes require that if the entity ceases to emit because of the closure of an installation, the allowances must be returned to the government (see paragraph 43).

This is because a purchased allowance is a tradable instrument that controlled by the entity and from which future economic benefit is expected to flow to the entity. The benefit will flow either through the sale of the allowance or its use to settle the entity's obligation to remit allowances equal to its emissions. The staff think that few would dispute this conclusion today.

17. The next issue to consider is whether the same conclusion applies if the allowance is allocated by the government free of charge. In issuing IFRIC 3, the Interpretations Committee noted that there is no difference in the value or function of an allowance allocated by government and one that is purchased. Both can be sold by the entity or held to settle emissions obligations. The Interpretations Committee could find no reason to treat them differently. Consequently, it concluded that allocated allowances should also be recognised as assets.
18. An alternative view is that allowances issued by the government free of charge should be treated differently from purchased allowances and therefore do not warrant recognition as an asset. This view mainly arises as a result of considering the entity's position before and after the introduction of the emissions scheme. That is to say, before the introduction of the scheme the entity has a right to produce unlimited emissions at no cost, whereas afterwards the entity has been given an allowance to emit at a specified level (likely to be below its existing level of emissions). Emissions above that level will result in an additional cost. The allowances are tradable, but the entity is not 'better off'. In fact it is worse off because its previously unrestricted right to emit has been capped. This restriction may indicate that the entity's assets are impaired.

Timing of recognition

19. The staff think that purchased allowances should be recognised when the entity obtains control of them and no specific accounting issues arise. However, if emissions allowances that are allocated free of charge are recognised as assets, questions arise about which 'past event' gives rise to the entity's right to control the allowances.
20. In the EU ETS, emissions allowances are allocated to participants based on past emissions levels. The allocation plan covers a commitment period comprised of

several compliance years. The plan assumes that the participant will continue to operate the covered installation throughout the longer commitment period. The overall allocation is then divided into annual amounts of allowances, which are issued in January and delivered into the participant's registry account about two months later.

21. If the allocated allowances are recognised as assets, what triggers the timing of recognition by the participant? For example:
- (a) Should the annual allocation of emissions allowances be recognised on issue (beginning of the compliance year) or on delivery (about two months later)?
 - (b) Should the allowances for future years within the commitment period, which are allocated but not yet issued, be recognised when allocated, that is, at the start of the commitment period? Generally, the receipt of future allocated instalments is conditional upon an installation continuing to operate. Consequently, one view is that an entity recognises an asset for future instalments only once the condition to receive them is resolved. This suggests that they should be recognised when the annual allocation is issued. Another view is that the allocation of allowances for the whole commitment period gives the entity an option to claim instalments for future compliance years within the longer commitment period. The option is under the entity's control. Under that view, that option—the right to receive emissions allowances in the future—may meet the criteria for recognition as an asset at the beginning of the commitment period.
 - (c) Some question whether an entity should be able to recognise future allowances that it expects to be allocated for future commitment periods. For an ongoing scheme, such as the EU ETS, the 'rules' for the next commitment period (sometimes call the next phase) are announced in advance. At that time, an entity may be able to make a reasonable estimate about the number of allowances that they will receive.

Measurement

22. In cases in which a participant acquires emissions allowances in the market or through an auction, the cost is unlikely to be materially different from fair value. In such cases, it seems that there is general agreement that initial measurement at cost is an appropriate measurement basis. However, in most schemes, particularly in the early phases, at least some participants are allocated allowances free of charge. As noted in paragraph 17, some think that allocated and purchased allowances should not be accounted for differently because they are indistinguishable from each other. They suggest that not recognising allocated allowances (or recognising them at nil cost) would mean treating like items differently.
23. The following paragraphs identify possible measurement approaches that could be addressed in the project:

Model 1 – Fair value with subsequent remeasurement:

24. Some suggest that purchased and allocated allowances should be measured at fair value initially and subsequently at each reporting date because the allowances are tradable. Consequently, using fair value would provide more relevant information about the market assessment of future cash flows and risk. If there is a difference between the fair value at initial recognition and the price paid by the entity, a question arises about how the difference should be accounted for (see paragraph 29).
25. If the allowances are subsequently remeasured, an issue then arises about where revaluation gains and losses should be recognised.
- (a) If the allowances are classified as intangible assets, then changes in fair value would be recognised in other comprehensive income in accordance with IAS 38 *Intangible Assets*.
 - (b) However, some suggest that the allowances are effectively an input to the production process and, therefore, are similar to inventories or commodities. Paragraph 3(b) of IAS 2 *Inventories* refers to commodity broker-traders who measure their inventories at fair value less costs to sell, with changes in fair value less costs to sell being recognised in profit or loss. However, participants in the emissions trading schemes will hold the

majority of allowances for remitting to the government and are unlikely to be classed as broker-traders.

- (c) Others suggest that the allowances would be better classified as a type of financial instrument and revalued through profit or loss in accordance with IFRS 9, because they can both be traded and be used as a form of currency to settle an obligation that has monetary value.

Model 2 – Initial measurement at fair value with no remeasurement

26. This model would require purchased and allocated allowances to be initially measured at fair value with no subsequent remeasurement for price changes in the active market for allowances at each reporting date. This would reduce the concern that recognising allowances initially at cost would result in a different treatment between purchased and allocated allowances.
27. The absence of subsequent remeasurement would reduce the concerns of those who suggest that the allowances should be treated like inventories and should not be remeasured.
28. This model could either require impairment testing under existing standards (IAS 36 *Impairment of Assets*) or use the lower of cost (or deemed cost if fair value at initial measurement is different than cost) and net realisable value approach of IAS 2.
29. If there is a difference between the fair value at initial recognition and the price paid by the entity, a question arises about how the difference should be accounted for. Some suggest that a ‘day one’ gain should be recognised because the entity has been given a valuable, tradable, resource by the government at below its fair value.
30. Others suggest that there is no day one gain. As noted in paragraph 20, the entity receives allocated allowances only if it has previously emitted. Consequently, the entity is not in a position to realise any perceived day one gain. Even if the entity immediately sells the allocated allowances, it will need to take action to either purchase replacement allowances or reduce its emissions to such an extent that it does not need to remit allowances back to the government.

31. An alternative view is, therefore, that the allocated allowances are similar to a conditional government grant.⁶ The entity must return the granted allowances to the government at the end of the compliance period unless it can reduce its emissions below the allocated cap and retain the surplus allowances. Using this view, the difference between the cost and the fair value on initial measurement would be accounted for as a government grant in accordance with IAS 20 *Accounting for Government Grants Disclosure of Government Assistance*. This was the treatment required by IFRIC 3. This means that the grant would be recognised in profit or loss on a systematic basis over the periods in which the entity recognises as expenses the related costs for which the grant is intended to compensate.

Model 3 – Price paid with no remeasurement:

32. This model would require the initial measurement of purchased and allocated allowances to be based upon the price paid by the entity at the time of acquisition. Because allocated allowances are received for no monetary consideration, this would result in an initial measurement of nil for the allocated allowances. For purchased allowances, this model would likely result in the same *initial* measurement as the fair value models.
33. This model would be consistent with both IAS 38 and IAS 2. It is supported by the view that it is only the net cost to the entity of the emissions reduction scheme that needs to be recognised in the financial statements. If an entity has received emissions allowances free of charge, and those allowances are subsequently remitted back to the government to settle the entity's emissions obligation, there is no net cost to the entity.
34. However, this model does not address the concerns of those who view both purchased and allocated allowances as indistinguishable assets, which should be accounted for in the same way.

⁶ A government grant is defined in IAS 20 as assistance by the government in the form of transfers of resources to an entity in return for past or future compliance with certain conditions relating to the operating activities of the entity.

Model 4 – Business approach

35. Some suggest that participants in an emissions trading scheme should be allowed to use different measurement approaches for allowances depending on their intended use because this could most faithfully represent the economics of these transactions. Allowances that are expected to be used to settle the obligation to remit the quantity of allowances equal to the emission produced could be treated like inventories. Any allowances that are expected to be surplus to production-related requirements could be treated as held for trading and be measured at fair value through profit or loss.
36. However, entities might find it difficult to determine the expected use of their allowances both initially and as circumstances changes over time. Guidance would also need to be developed to determine how an entity would account for a change in measurement basis when the expected use changes.

Should a liability be recognised for the obligation to remit allowances equal to the quantity of emissions produced?

37. Some participants in emissions trading scheme receive no allocation of allowances free of charge. Instead, they must purchase all of the allowances that they need to settle their obligation to remit allowances at the end of the compliance period.
38. In such cases, we think that most would accept that the entity should recognise a liability only as it emits pollutants. The liability would be measured at the best estimate of the expenditure required to settle the present obligation, in accordance with IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*. This is likely to be based on the market price of allowances at the reporting date.
39. However, many participants receive an allocation of allowances free of charge, which is intended to cover at least part of their obligation to remit, at the end of the compliance period, allowances equal to the quantity of emissions produced during the period. It is this free allocation that has raised many questions about whether a liability should be recognised at the same time, and at the same financial amount, as any asset recognised for the allocated allowances.

40. Some suggest that, at the beginning of the compliance period, an entity has no present obligation to remit the allocated allowances because it has no obligation to emit. In such cases, the entity is able to benefit immediately from the allocated allowances.
41. However, the installations to which emissions allowances are allocated have histories of emitting – this is what makes them subject to the scheme. When an installation is allocated allowances, it is obliged to do one of two things:
- (a) Exit the market; or
 - (b) Comply with the scheme.

Exiting the market

42. In some schemes, even if an entity closes an installation, it may be able to retain that year's allocation of allowances for that installation. Therefore, in this case, this could support the view that there is no obligation for the entity, but there is a day one gain.
43. In other schemes, the entity is obliged to return the allocated allowances for an installation if that installation closes. Therefore, there is a view that a liability arises here because the entity is obligated to return those allowances, whether it continues to emit or not.

Complying with the scheme

44. The purpose of an emissions trading scheme is to reduce the level of emissions produced by installations covered by the scheme. An entity's installations are usually allocated allowances equivalent to emissions that are *below* the installation's historical levels of emissions. Upon allocation of emissions allowances, an entity is unlikely to be in a position to immediately cease emitting from any given installation.
45. Therefore, if a particular installation is to continue to operate, the entity is expected not only to need to return its allocated allowances at the end of the compliance period but will also need either to reduce its emissions or buy additional allowances to cover excess emissions. In both cases, there are likely to be associated costs.
46. Consequently, the common accounting approaches outlined in Appendix C either:
- (a) do not recognise an asset or a liability for the allocated allowances, or

- (b) recognise a liability at the same time, and at the same financial amount, as any asset recognised for the allocated allowances.
47. The recognition of a liability at the same time, and at the same amount, as the asset recognised for the allocated allowances reflects the view that it is important to reflect the scheme as a single unit of account and, therefore, reflect the net effect of the scheme (see paragraph 10). However, the separate presentation of the asset and liability raises questions as to what is the nature of the ‘present obligation’ to support the recognition of a separate liability and how its measurement relates to the measurement basis required by IAS 37 or other Standards that deal with the recognition and measurement of liabilities.

Buying additional allowances

48. A further issue arises when an entity expects to emit above the level of the allowances that it holds and will need to buy additional allowances.
49. Some suggest that the obligation to remit allowances is similar to a levy and, therefore, should be accounted for in accordance with IFRIC 21 *Levies*. This would mean that the entity would not recognise a liability for the excess allowances until its emissions exceed the allowances held.
50. Others suggest that this would not faithfully represent the results of the activities undertaken during the year. Instead, the entity should estimate the total level of emissions that it expects to make during the period and accrue a liability for the expected net cost through the compliance period as it emits, based on the expected pattern of emissions in the period. The net cost would be the cost of the additional allowances that the entity would need to acquire in excess of the allowances received free of charge.

Presentation: Should entities present the purchased and allocated allowances and the related liabilities on a net basis?

51. When an entity is required to return allowances to the scheme administrator, the only way it can settle this liability is by delivering the allowances. Consequently, some

suggest that the entity should report only its net position under the scheme at the reporting date.

52. The staff think that there is merit in this suggestion but there are various issues that would need to be addressed if it were to be permitted (or required). These issues relate primarily to the problems of recognition and measurement highlighted earlier in this paper. If the IASB was to decide to develop recognition and measurement requirements that applied the same bases for both the allowances held (asset) and obligation to remit allowances (liability), then some form of net presentation may be more easily achieved.
53. Alternatively, whether the asset and liability elements are recognised and measured on the same basis or not, some form of linked presentation may be suitable. This would enable participant's net position under the scheme to be readily seen, with greater transparency than a net presentation to explain how that net position is comprised.

Baseline and credit schemes

54. Baseline and credit schemes have features in common with cap and trade schemes and many of the issues highlighted above are equally applicable to recognition and measurement of issued credits in a baseline and credit scheme. Some suggest that, because a baseline and credit scheme is intended to produce the same environmental result as a cap and trade scheme, they should be accounted for in similar ways. Consequently, some suggest that the baseline should be recognised as an asset in the same way as allocated allowances. However, this would create the same problems with recognition and measurement issues for both the asset and the related obligation as the cap and trade scheme. An alternative approach is to prohibit the recognition of the baseline as an asset, but this approach raises other issues.

When should credits be recognised as an asset?

55. In a baseline and credit scheme, a participant that has emitted below its baseline receives credits equal to the difference. The credits can be traded in a similar way to allowances in a cap and trade scheme and, consequently, they are a valuable resource that many argue should be recognised as an asset. Similar questions about initial and

subsequent measurement arise as those that relate to allowances allocated in a cap and trade scheme.

56. If credits are to be recognised, a further question arises about the timing of recognition. Should an entity wait until the credits are awarded (ie the compliance year has ended and the entity has verified that it has emitted below its baseline) or should it accrue for the credits based on its expected emissions? Accruing during the year based on expected emissions is, effectively, recognising part of the baseline.

Question

Does the IASB have any comments or other issues for the staff to consider?

Appendix A

IFRIC 3

IFRIC 3 *Emissions Rights* was issued in December 2004 to address the accounting by participants in a cap and trade scheme but was withdrawn soon after. We summarise the main requirements of IFRIC 3 for information.

Asset

- (a) Allowances held are recognised as assets in accordance with IAS 38 *Intangible Assets*, whether government-issued (free of charge) or purchased.
- (b) The allowances are measured initially at fair value.

Government grant

- (a) A day one gain is not recognised. Instead, a government grant is recognised in accordance with IAS 20 *Accounting for Government Grants and Disclosure of Government Assistance*, for the difference between the amount paid for, and the fair value of, the allowances received.
- (b) The grant is subsequently recognised as income on a systematic basis over the compliance period, regardless of whether the allowances are held or sold.

Liability

- (a) A liability for the obligation to remit allowances equal to emissions produced is recognised only as emissions are produced, as a provision in accordance with IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*.
- (b) The liability is measured at best estimate of expenditure required to settle present obligation at balance sheet date. This will usually be the present market price of the number of allowances required to cover emissions made up to the balance sheet date.

Appendix B: Tentative decisions from the previous iteration of this project

Between 2005 and 2010, the project was run jointly with the US Financial Accounting Standards Board (FASB). Some of the tentative decisions made by the boards during that time were:

- (a) *Scope*—the boards tentatively decided that the scope of the project would cover not only emissions trading schemes, but project-based certificates and renewable energy certificates. The guidance was expected to apply to those that buy and sell tradable rights – both participants and non-participants.
- (b) *Recognition and measurement of an asset*— the boards tentatively decided that an entity should recognise emissions allowances as assets, initially and subsequently measured at fair value, whether received free of charge from the government or purchased.
- (c) *Recognition and measurement of a liability*—the boards tentatively decided that the allocation of allowances creates an obligating event that meets the definition of a liability in the *Conceptual Framework* and so would be recognised as a liability, measured initially and subsequently at the fair value of the allowances received.

For the timing of recognition of a liability for allowances to be purchased to cover excess emissions, there were split views. While some Board members supported recognition of the excess liability throughout the compliance period as emissions occur, others supported recognition of the excess liability only when emissions exceed the liability for the allocation.

- (d) *Presentation*—the Boards had different views on this topic. The IASB preferred gross presentation of the assets and liabilities on the balance sheet, while the FASB preferred a form of linked presentation.

Appendix C: Approaches applied in practice to account for cap & trade schemes

In the absence of authoritative guidance by the IASB, several approaches have developed that IFRS preparers apply to account for the effects of emissions trading schemes. A survey by PwC and the International Emissions Trading Association (IETA) identified as many as fifteen variations to account for the effects of EU ETS.⁷ The following table highlights the three main approaches.

⁷ See 'Trouble-entry accounting - Revisited: Uncertainty in accounting for the EU Emissions Trading Scheme and Certified Emission Reductions.' (http://www.ieta.org/assets/Reports/trouble_entry_accounting.pdf)

| | | Approach 1 | Approach 2 | Approach 3 |
|----------------------|-----------------------------|---|---|---|
| Initial recognition | <i>Allocated allowances</i> | Recognise and measure at market value at date of issue; corresponding entry to government grant. | | Recognise and measure at cost, which for granted allowances is nil . |
| | <i>Purchased allowances</i> | Recognise and measure at cost . | | |
| Subsequent treatment | of allowances | Allowances are subsequently measured at cost or market value , subject to review for impairment. | | Allowances are subsequently measured at cost , subject to review for impairment. |
| | of government grant | Government grant amortised on a systematic and rational basis over compliance period . | | Not applicable. |
| Liability | Recognition | Recognise liability when incurred (ie as emissions are produced). | | Recognise liability when incurred (ie as emissions are produced). However, the way in which the liability is measured (see below) means that often no liability is shown in the statement of financial position until emissions produced exceed the allowances allocated to the participant. |
| | Measurement | Liability is measured based on the market value of allowances at each period end that would be required to cover actual emissions, regardless of whether the allowances are on hand or would be purchased from the market. | Liability is measured based on: the carrying amount of allowances on hand at each period end to be used to cover actual emissions (ie market value at date of recognition if cost model is used; market value at date of revaluation if revaluation model is used) on either a FIFO or weighted average basis; <i>plus</i> the market value of allowances at each period end that would be required to cover any excess emissions (ie actual emissions in excess of allowances on hand). | Liability is measured based on: the carrying amount of allowances on hand at each period end to be used to cover actual emissions (nil or cost) on a FIFO or weighted average basis; <i>plus</i> the market value of allowances at each period end that would be required to cover any excess emissions (ie actual emissions in excess of allowances on hand). |