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CONTACT(S)	Natasha Dara	ndara@ifrs.org	+44 207 246 6919
	Jane Pike	jpik@ifrs.org	+44 207 246 6925

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Introduction

- 1 This Agenda Paper is divided into two sections.
 - (a) Section 1 provides background information on two common types of emissions trading schemes: ‘cap and trade’ and ‘baseline and credit’.
 - (b) Section 2 discusses some accounting issues identified to date. Specifically, the paper considers issues related to initial recognition upon allocation of granted emission allowances or a baseline.

Section 1—Background on emissions trading schemes

- 2 Section 1 describes the two types of emissions trading schemes and analyses their similarities and differences. It also outlines the allocation mechanisms, i.e. the allocation of a baseline and the allocation of emissions allowances.
- 3 Section 1 is set out as follows:
 - (a) Description of the schemes (¶4-¶16);

- (b) Comparative analysis of the schemes (¶17-¶25);

Description of the schemes

Cap and trade schemes – EU ETS

- 4 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 discussion of cap and trade schemes will focus on the EU ETS.
- 5 In a cap and trade scheme, a ‘scheme administrator’ (eg a governmental body) sets an overall cap on the amount of emissions that may be released during specified time periods. 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’. The overall cap is implemented by issuing allowances to emit. Each ‘emission allowance’ grants a right to emit a certain amount of regulated pollutant (eg under the EU ETS, one emission allowance offsets or ‘pays for’ the equivalent of one tonne of carbon dioxide (CO₂)). Before a specified deadline following the compliance year, participants must pay for their emissions by remitting to the scheme administrator emission allowances equal to their actual emissions.
- 6 The issuance of emission allowances is governed by ‘allocation plans’. The allocation plans determine the number of emission allowances that are granted free of charge to the participants and the number that are sold or auctioned in the market place. Over time, the overall cap is reduced, in order to achieve the desired reduction in overall emissions.
- 7 Under the EU allocation plans, the scheme administrators (government bodies of EU Member States) currently allocate the majority of the emission allowances free of charge to the participants with the remaining allowances being auctioned in the market place. The free allocation is intended to smooth the transition process for the participants. Participants are free to trade their emission allowances and—as evidenced by the market activity—actively do so.

- 8 In the EU ETS, emission allowances are granted or issued by the end of February in each respective compliance year (ending in December). By April of the following year, participants have to surrender emission allowances equal to their level of emissions during the compliance year to settle their emissions obligation for that year. Participants may effectively borrow allowances from the following compliance year's February allocation when settling their obligation for the preceding year (ie they may use allowances for compliance year 2 to settle obligations for compliance year 1). Unused emission allowances may be banked for use in future compliance years.
- 9 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 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.

Some other features of cap and trade schemes

- 10 Other cap and trade schemes have different features. Although this Agenda Paper, including the discussion of the accounting issues, focuses on the features of the EU ETS, the staff think that it is important to keep in mind that there are meaningful variations in existing cap and trade schemes.
- 11 For example, in the United States' Acid Rain Program, allowances to emit sulphur oxides are already allocated for a period covering the next 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 currently 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.

- 12 Additionally, it should be noted that although the markets for EU ETS allowances are active, markets for allowances issued under other schemes have varying levels of activity. Markets for allowances under some schemes are undeveloped and considered illiquid.
- 13 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. In the EU ETS, the imposition of a penalty does not remove the obligation to remit the required allowances.

Baseline and credit schemes

- 14 Baseline and credit schemes differ from cap and trade schemes in at least one important aspect. Instead of issuing emission allowances equal to the cap before or near the beginning of the compliance year, the scheme administrator assigns a 'baseline' to each participant in the scheme. The baseline establishes the emissions limit.
- 15 A participant may emit up to the level of the baseline without incurring additional costs. If, at the end of the compliance year, a participant's emissions are below its baseline, it receives 'credits' equal to the difference. If a participant has exceeded its baseline, it has to purchase and surrender 'credits' equal to the difference. 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 limited. The baseline itself is assigned to a specific source of emissions and is not tradable.
- 16 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.

Comparative analysis of the schemes

- 17 Cap and trade schemes and baseline and credit schemes are both mechanisms to limit emissions. Usually, the goal of a scheme is to restrict an activity that was previously unrestricted. Eventually, this restricts an entity in its activities, thereby creating a new cost for activities that were previously free.
- 18 In a cap and trade scheme, the overall cap is implemented by issuing emission allowances equal to the cap. Likewise, in a baseline and credit scheme, individual baselines are assigned to the participants, thereby establishing an overall cap equal to the sum of the individual baselines. In terms of regulating emissions, baseline and credit schemes may be seen as equivalent to cap and trade schemes if the cap implicit in the baseline and credit scheme is fixed and numerically equal to the fixed cap in a cap and trade scheme.
- 19 Some commentators have noted that, in theory, a cap and trade scheme in one jurisdiction could be ‘linked’ to a baseline and credit scheme with a similarly strict overall emissions limit in another jurisdiction. In that case, participants would be able to trade emission allowances or credits across schemes and remit emission allowances or credits from either scheme to cover their emissions obligations. Proponents argue that linking of schemes lowers the overall costs of compliance because emissions reductions will be carried out in the sub-scheme with the lowest costs.
- 20 Given the equivalence of the schemes on an aggregate level, does this imply that participants are in a similar position when entering into one of the schemes? Primarily, this will depend upon the free allocation of emission allowances and baselines to the participants. Under a cap and trade scheme, the free allocation of emission allowances represents an amount of emissions that can be produced without incurring additional costs. The allocated emission 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 baseline and credit schemes are in a similar position if

the level of allocated emission allowances is equal to the assigned baseline. Assuming that a participant does not trade its allocated emission allowances, participants will end up with the same excess number or shortfall of emission allowances (cap and trade) or credits (baseline and credit) at the end of the compliance period.

- 21 However, the schemes achieve the emissions targets by different means. Whereas a participant in a cap and trade scheme is granted tradable emission allowances, a participant in a baseline and credit scheme receives a baseline that is, generally, tied to the source of emissions and therefore, cannot be separately transferred. In a cap and trade scheme, a linkage between the source of emissions and the allocation of emission allowances applies only to future instalments. A participant is not entitled to receive emission allowances in future compliance periods if the source of emissions is closed and/or the production falls below a specified level. Only under certain conditions do the schemes allow for a transfer of future instalments or baselines if a source of emissions has been replaced.
- 22 The schemes differ in how the trading mechanisms are implemented. In a cap and trade scheme, a participant may start spot trading upon receipt of the emission allowances. Usually, the emissions allowances are allocated at, or shortly after, the beginning of a compliance period. In a baseline and credit scheme, tradable instruments are generated if the emissions of a participant remain below of its baseline. Those credits will not be issued until the end of the compliance period. Further, the number of tradable instruments 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 the administrator would issue emissions allowances up to the level of the baseline, ie 80,000.
- 23 Even though participants in a baseline and credit scheme cannot trade the baseline, in theory, the availability of forward markets could render baseline and credit schemes equivalent to cap and trade schemes. A participant

expecting an excess or a shortfall of credits in the 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 virtually sell (parts of) their baseline. The physical delivery of credits takes place when the participants receive the credits after the end of the compliance period.

- 24 Another difference relates to the potential financing element that goes along with the allocation of emission allowances. Upon receipt, a participant may sell those in the market and simultaneously enter into forward contracts to buy them back. 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. In contrast, in a baseline and credit scheme a participant may not use the baseline as a source of financing.
- 25 In practice, baseline and credit schemes often are said to be of restricted liquidity due to the smaller number of tradable instruments for a shorter period of time. This is because the credits are issued at the end of the compliance period and therefore are traded over a shorter period of time. However, in a baseline and credit scheme that allows for banking of the credits, the trading window will expand over time.

Section 2—Accounting issues

- 26 This section discusses the following issues:
- (a) In a baseline and credit scheme and in a cap and trade scheme, are credits and emission allowances recognisable assets? (¶28-¶34)
 - (b) In a baseline and credit scheme, is the baseline a recognisable asset? (¶35-¶46)
 - (c) When does an entity incur an emission obligation in the schemes? (¶47-¶52)

(d) What is the corresponding entry on recognising a baseline and allocated emission allowances? (¶53-¶59)

(e) Do the schemes require consistent accounting approaches? (¶60-¶64)

27 This section presents different views that the IASB staff have heard to date about how to address these issues. The Appendix summarises the common approaches applied to accounting for cap and trade schemes.

In a baseline and credit scheme and in a cap and trade scheme, are credits and emission allowances recognisable assets?

28 Both schemes introduce a trading mechanism by issuing tradable instruments in the form of emission allowances (in a cap and trade scheme) and credits (in a baseline and credit scheme). The tradable instruments are either allocated at no cost to the entities or auctioned in the market place.

29 Many suggest that both emission allowances issued under a cap and trade scheme, and credits that are issued at the end of the compliance period in a baseline and credit scheme, meet the definition of an asset under the IASB’s current *Conceptual Framework*. Namely the allowance is ‘a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.’

30 The existence of an asset is evidenced by the fact that an allowance or a credit is a tradable right that typically has a market value and that the entity can either sell or use to settle an obligation. The future economic benefit of the allowance or credit flows to the entity either through the exchange for other assets or the settlement of an emissions obligation.

Should an entity recognise credits and emission allowances?

31 If it is accepted that credits and emission allowances meet the definition of an asset in the IASB’s current *Conceptual Framework*, it is expected that most credits and emission allowances will meet the criteria for recognition. An entity controls the emission allowances and, hence, future economic benefit associated with those instruments is expected to flow to the entity. In schemes

with active markets, quoted market prices provide entities with a reliable measurement of the value of emission allowances.

- 32 In addition, there is little doubt that an entity purchasing an emission allowance or credit in the market would report that emission allowance or credit as an asset rather than recognise the cost as an expense. The purchased emission allowances that an entity holds are indistinguishable from allocated ones, so not recognising allocated allowances (or recognising them at nil cost) would mean treating like items differently.

Recognition of future instalments

- 33 A related issue is the recognition of future instalments. Emission allowances often are *allocated* for a commitment period covering a number of years, but *issued* in yearly instalments covering the respective compliance year. In the EU ETS, for example, the national allocation plans determine the yearly instalments for the entire commitment period (2013 to 2020). Once the allocation plans have been approved by the EU, future changes to the plans are expected to be highly unlikely.
- 34 Generally, the receipt of future instalments is conditional upon a plant continuing its operations. Although remote, there is, therefore, a chance that an entity may not receive the emission allowances. Consequently, one view is that an entity recognises an asset for future instalments once the condition to receive them is resolved. Another view is that the allocation of allowances for future compliance years gives the holder an option to claim future instalments. Under that view, that option—the right to receive emission allowances in the future—meets the criteria for recognition as an asset.

In a baseline and credit scheme, is the baseline a recognisable asset?

- 35 In a baseline and credit scheme, the scheme administrator regulates the consumption of a resource that was previously unrestricted. This is no different from some of the intangible assets mentioned in IAS 38 *Intangible Assets*, eg airport landing rights, licences to operate radio or television

stations, import licences or quotas or other rights that give access to restricted resources.

- 36 In the IASB's *Conceptual Framework*, an asset 'is a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.' Further, 'the future economic benefit embodied in an asset is the potential to contribute to the flow of cash and cash equivalents to the entity. The potential may be a productive one that is part of the operating activities of the entity. It may also take the form of convertibility into cash or cash equivalents or a capability to reduce cash outflows, such as when an alternative manufacturing process lowers the costs of production.'
- 37 The allocation of a baseline allows a participant to perform an activity (ie emitting) up to a specified limit at no incremental cost. Only if an entity exceeds its baseline must it pay for its emissions by surrendering credits for the excess. Therefore, a baseline can be viewed as giving rise to future economic benefits to the entity because it gives the entity the right to emit up to the baseline without paying for those emissions. Without the baseline, the entity would have increased costs for *all* of its emissions. Hence, one view is that the baseline is an asset under the IASB's current *Conceptual Framework*.

Should an entity recognise a baseline?

- 38 A baseline that meets the definition of an asset should be recognised if it satisfies the criteria for recognition. Under the IASB's *Conceptual Framework*, a baseline should be recognised as an asset 'if:
- (a) it is probable that any future economic benefit associated with the item will flow to or from the entity; and
 - (b) the item has a cost or value that can be measured with reliability.'
- 39 In most cases it will be evident that any future economic benefit associated with the baseline will flow to the entity because the baseline is linked to a specific emitting source of the entity (ie a specific plant). As long as an entity

controls the emitting source it will benefit from the potential to produce emissions up to the level of the baseline at no additional cost.

- 40 As for measurement, baselines are generally granted free of charge. Hence, if they were recognised at cost they would, in effect, not be recognised. But, some argue that it may not be possible to measure a baseline with reliability. Unlike the tradable instruments (ie emission allowances and credits) that result from the schemes and are actively traded, the baselines in a baseline and credit scheme may not be traded. Hence, an active market for baselines will most likely not exist. In theory, the value of a baseline might be derived from the spot or forward prices of credits. However, the range of fair values may be significant.
- 41 Among those who consider that a baseline meets the recognition criteria there are different views on whether it gives rise to the recognition of a *separate* asset. Generally, the baseline is inextricably linked to the emitting source. An entity can neither sell a baseline separately nor acquire additional baselines.
- 42 One view is that, upon assignment, the baseline becomes an integral part of the emitting source it is linked to. This is similar to the example of computer software for a computer-controlled machine tool that cannot operate without that specific software. In the example, the specific software is treated as property, plant and equipment. Only when the software is not an integral part of the related hardware is the computer software treated as an intangible asset (see paragraph 4 of IAS 38). Therefore, this view concludes that a baseline does not give rise to the recognition of a separate asset but becomes an integral part of the emitting source.
- 43 Another view focuses on whether a baseline would be recognised separately from goodwill in a business combination. IAS 38 requires an intangible asset to be identifiable to distinguish it from goodwill. An intangible asset is identifiable when it is separable or it arises from contractual or other legal rights, regardless of whether those rights are transferable or separable. A baseline is not separable; however, it arises from legal rights, and therefore it

is identifiable. Hence, in a business combination, a baseline could be recognised separately from goodwill.

- 44 Similarly, outside the context of a business combination, a baseline could also be recognised as a separate intangible asset when assigned (if it meets the asset definition and the other recognition criteria (ie future economic benefits flow to the entity, reliable measurement). In contrast to paragraph 42, this view does not link the baseline to specific resources of an entity.
- 45 However, the recognition of a baseline may be counterintuitive in some cases, because it does not reflect the entire effect of a scheme on an entity's resources. The introduction of a scheme changes the environment in which an entity operates in and, therefore, affects the entity's other resources. Some view this change in environment as the result of a business opportunity or risk. The introduction of a scheme is likely to have an adverse effect on some entities. For example, it may result in a significant increase in future costs and perhaps result in an impairment, either of recognised assets or of unrecognised assets, including internally generated goodwill.
- 46 Recognising a baseline may not be consistent with the accounting for other similar intangible assets where a government restricts the use of a (public) good and allocates rights to use this good, for example, airport landing rights, licences to operate radio or television stations, import licences or quotas. This is because such assets are often not recognised outside of a business combination. However, in IAS 38 non-recognition arises because of the application of IAS 20 *Accounting for Government Grants and Disclosure of Government Assistance*. This permits an entity to recognise such assets at a nominal amount, which is commonly nil.

When does an entity incur an emission obligation in the schemes?

- 47 Many suggest that a liability to deliver credits or emission allowances does not arise before an entity starts emitting. Until an entity starts producing emissions, it has no present obligation to surrender credits or emission allowances to the administrator under either scheme. In other words, there is

no obligation to deliver allowances when an entity is allocated either emission allowances in a cap and trade scheme or a baseline in a baseline and credit scheme. A present obligation is a key characteristic of the IASB's current *Conceptual Framework* definition of a liability: 'a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity of resources embodying economic benefits'.

- 48 The fact that an entity cannot have an obligation before emitting seems to be no different from an environmental clean-up liability. The IASB has previously concluded that entities do not have clean-up liabilities until they have caused environmental damage.
- 49 However, once the entity starts to produce emissions, the timing of when an obligation arises depends on the nature of the scheme.
- 50 In a baseline and credit scheme, an entity incurs a present obligation to remit credits when its emissions exceed its baseline. In a scheme with a fixed baseline, a present obligation arises only when an entity's overall emissions exceed the level of the allocated baseline.
- 51 However, under another view, an entity recognises a liability in a baseline and credit scheme before its emissions exceed the baseline. For example, suppose an entity is allocated a baseline of 100 emission units per calendar year, and the entity's fiscal year ends on 30 June. At the end of the fiscal year, the entity has emitted 60 units during the current compliance year and expects to emit another 60 units from July to December. Under this view the entity recognises a liability and expense corresponding to 10 units of emissions as of 30 June.
- 52 In a cap and trade scheme, a present obligation to remit emission allowances arises when an entity actually emits, ie an entity starts incurring a liability with the first unit of emissions.

What is the corresponding entry on recognising a baseline and allocated emission allowances?

- 53 If a baseline in a baseline and credit scheme is recognised as an asset, this raises the issue of whether there is a corresponding liability to recognise. The same issue arises in cap and trade scheme upon recognition of granted emission allowances.
- 54 One view focuses on the fact that an entity has no present obligation upon recognition of a baseline or granted emission allowances. This view refers to the discussion above in paragraphs [47-52] on when an entity incurs an emission obligation under the schemes. Upon recognition of a baseline or granted emission allowances, an entity has no present obligation to remit the baseline or the emission allowances. The administrator could not fine or make the emitter take action to offset any future emissions. Although an entity expects to emit in the future, it nonetheless has choices. For example, it could stop operating its carbon-emitting plants. A participant that stops producing may not have any obligation to remit the allocated emission allowances.
- 55 The likelihood that the entity will produce emissions in the future creates a risk that the entity may have to deliver credits or emission allowances in the future. However that risk does not create a present obligation.
- 56 Another view opposes recognising a gain upon allocation of a baseline and emission allowances. It points to the motivation behind implementing such schemes. Emissions trading schemes are a regulatory approach to reduce emissions over time by imposing costs to emit (through market based mechanisms, rather than direct fees or penalties). The free allocation of baselines and emission allowances is intended to ease the transition to a new environment for the entities. Generally, the level of baselines and allocated emission allowances is below historic emissions and is expected to decrease over time. Hence, overall the scheme will typically have an adverse affect on an entity that will increase over time. The recognition of a gain on initial receipt of credits or emission allowances does not reflect the overall purpose of an emissions trading scheme.

- 57 Further, recognising a gain upon initial recognition may be counterintuitive because the allocation of a baseline or emission allowances, typically, is intended to cover a specified percentage (less than 100%) of future emissions. The entity is, therefore, expected to have to incur additional costs in order to reduce its emissions or to purchase additional allowances or credits. Consequently, some argue that it may be misleading to recognise a gain at a time when the entity does not recognise a corresponding impairment of a recognised or an unrecognised asset (the emitting plant or goodwill) or a provision for the related costs.
- 58 This view compares the allocation to a performance related government grant. Only if an entity reduces its emissions, will it benefit from the schemes. An entity that has emitted in the past has limited choices. For example, many utilities enter into long-term contracts with their customers. Additionally, utilities are often required by the government to deliver energy. In practice, an entity that stops operating its carbon-emitting plants must provide energy from third parties. In that situation, an energy buyer pays indirectly for the costs of emitting. Therefore, this view does not consider it appropriate to recognise a gain upon receipt of the grant of a baseline or emission allowances if the entity knows that subsequent emissions will cause this gain to reverse.
- 59 Under this view, an entity recognises both baseline/allocated emission allowances and a corresponding liability reflecting the level of emissions covered by the baseline or the allocated emissions allowances. In this case, the entity measures a baseline and allocated emission allowances initially at a nominal amount, ie nil or at fair value. In the EU ETS, the accounting for allocated emission allowances at a nominal amount is applied by the majority of the big emitters (see the Appendix).

Do the schemes require consistent accounting approaches?

- 60 The discussion above has highlighted some of the main questions that need to be addressed in the IASB' Emissions Trading Schemes research project. It has also highlighted that recognising the tradable assets arising in the schemes

(ie allowances and credits) is arguably more straightforward than recognising baselines.

- 61 An issue that the IASB will need to consider is whether the accounting for the two schemes should be consistent, or at least result in the same profit or loss and net assets upon the allocation of either emission allowances or baselines.
- 62 The staff raise this issue because the two schemes are designed to achieve the same targets, even though they do this through different mechanisms. As discussed in Section 1, the allocation of emission allowances effectively establishes a baseline of emissions for a participant.

Event	Cap and Trade Scheme	Baseline and Credit Scheme
Beginning of regulatory period	Participant allocated emission allowances	Participant allocated baseline
End of regulatory period	Participant must remit to regulator emission allowances equal to emissions during the regulatory period.	Participant receives from (must remit to) the regulator emission credits equal to emissions below (above) the allocated baseline.

- 63 At the end of the compliance period, a participant in a cap and trade scheme remits emission allowances equal to the level of emissions. In a baseline and credit scheme, a participant receives (remits) a net amount reflecting the difference between its actual emissions and the assigned baseline. Provided that the amount of allocated emission allowances is equal to an assigned baseline, a participant would end up with the identical excess (shortfall) of emission allowances or credits.
- 64 If the IASB was eventually to conclude that allowances and credits should be recognised (with corresponding gains recognised in profit or loss) but that baselines should not be recognised, then the effect on profit or loss will be different in the two schemes.

Appendix: 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.¹ 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.

¹ 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).