Project **Emissions Trading Schemes**

Topic **Recognition of a liability for emissions in excess of initial allocation, and measurement of liabilities in an emission trading scheme**

Purpose

1. The purpose of this paper is to determine:

   (a) when to recognize a liability for emissions in excess of the initial allocation, and

   (b) the measurement of liabilities in an emissions trading scheme.

2. The liabilities include the liability when an entity receives an allocation of allowances (referred to as the 'liability for the allocation') and the liability for emissions above the initial allocation (the 'liability for excess emission'). Some believe these liabilities are one liability. The staff have however separated these liabilities in the analysis in this paper.

3. The analysis in this paper is applicable to both voluntary and statutory cap and trade schemes.

Prior board discussions

4. At the September 2010 board meeting, the boards tentatively decided that a liability exists when an entity receives an allocation of allowances (ie the liability for the allocation).

5. At the October 2010 board meeting, the boards discussed the measurement of the liability for the allocation, as well as the interaction of an entity's emissions with

this liability, and the liability for excess emissions that may arise when an entity emits in excess of its allocation. The boards requested additional analysis on these issues.

Summary of staff recommendations

6. Some staff recommend View 2 while other staff recommend View 3. Both of these views indicate that when an entity is allocated allowances it is obligated to return ***only*** those allocated allowances, (ie a maximum) and thus the liability for the allocation is capped at the quantity of allocated allowances received.

7. View 2 differs from View 3 in the timing of recognition for emissions in excess of the liability for the allocation. View 2 indicates that if the entity expects to emit more than the liability for the allocation for the compliance period (ie over emitter), a liability for excess emissions is recognised as the entity emits throughout the compliance period. View 3 indicates that a liability for excess emissions is only recognised when actual emissions exceed the liability for the allocation.

Background

8. The tentative decision of the boards (September 2010) is that when an entity receives an allocation of allowances, it incurs a liability. The discussion of the measurement of this liability at the October 2010 board meeting suggested that there is disagreement about what this liability represents and how it should be measured. This disagreement appears to arise from the relationship between an entity's emissions (or expected emissions) and the receipt of the allocation of allowances (the obligating event). This paper addresses these issues together.

9. At the October 2010 meeting, some board members expressed support for an approach that would consider an entity's allowances and related liabilities on a net basis. Those board members take the view that the scheme should be accounted for as a single unit of account, or contract, and thus all the rights and obligations that may arise under the scheme should be recognised and measured on a net basis.

10. One of the staff's concerns with this approach is that a contract does not exist, at least in the case of the statutory scheme. In addition, the staff believe that while this view may appear to be a practical solution when an entity has received an allocation of allowances, it does not appear appropriate when an entity has not received an allocation of allowances. Thus, the staff believe the issue of netting is a presentation issue and not a unit of account issue.

11. In light of this, the staff believe it is important to consider the financial statement elements arising from an emissions trading scheme before discussing presentation. Thus, the issue of whether to present assets and liabilities net is discussed in IASB Agenda Paper 7C/FASB Agenda Paper 8C.

12. The agenda papers presented at the October 2010 board meeting explained that the measurement of the liabilities should be based upon two inputs: the price of the allowances, and the quantity of allowances to be returned or submitted. The staff recommended that the liability for the allocation should not exceed the quantity of allowances received for the initial allocation. The staff believe that at the time of the receipt of the allocation of allowances (ie the obligating event), an entity does not have a present obligation to submit allowances beyond the quantity of allowances allocated. In the staff's view, there is no present obligation to submit allowances beyond the allocation until an obligating event occurs that gives rise to another liability (eg emitting beyond the allocation). Thus, the staff concluded there are two distinct liabilities to account for separately. The first liability is the liability for the allocation while the second is the liability for the excess emissions of the entity beyond the allocated allowances.

13. The boards tentatively decided that the price input for the liabilities should be determined based upon the measurement of the allowances (purchased and allocated). That is, there should be a consistent basis for measuring the liabilities of the scheme and the allowances that will ultimately be used to settle the liabilities. Furthermore, the boards tentatively decided that the allocated allowances should be measured at fair value with remeasurement. The boards did not decide on the measurement of purchased allowances. IASB Agenda Paper

7B/FASB Agenda Paper 8B discusses the measurement of purchased allowances. In that paper, the staff recommend that purchased allowances be measured consistently with the allocated allowances (fair value with remeasurement).

14. However in terms of the second input for measuring the liability, (the quantity input), some board members disagreed with the staff recommendation (ie to recognise liability for excess emissions when actual emissions exceed the liability for the allocation – View 3 in this paper). The boards suggested the staff provide additional analysis related to the quantity of allowances that must be returned or submitted when an entity receives an allocation of allowances.

Staff analysis

15. The October 2010 IASB agenda paper 5B/FASB Agenda paper 7B presented two views (one of which was labelled a rejected alternative) for the recognition of the liability for emissions in excess of the allocation. In response to board members' comments, the staff have developed the following views for determining the quantity of allowances to be returned or submitted, and thus be recognized as a liability when an entity is allocated allowances:

    (a) View 1: An entity is obligated to submit allowances for the entire scheme and thus must initially measure the liability based upon the quantity of its total expected emissions for the compliance period that those allocated allowances relate.

    (b) View 2: An entity is obligated to return ***only*** the allocated allowances, (ie a maximum) and thus the liability for the allocation is capped at the quantity of allocated allowances. If the entity expects to emit more than the liability for the allocation for the compliance period (ie over emitter), a liability for excess emissions is recognised as the entity emits throughout the compliance period[1].

[1] The recognition of this liability is based upon a pro rata calculation that takes into account the quantity of allowances allocated and an entity's actual emissions. This calculation is explained in paragraphs 27-38 below.

(c) View 3: An entity is obligated to return ***only*** the allocated allowances, (ie a maximum) and thus the liability for the allocation is capped at the quantity of allocated allowances. A liability for excess emissions is recognised upon actual emissions exceeding the liability for the allocation.

16. The staff have chosen to present the allowances and the liabilities in all three views as initially and subsequently measured at the fair value. This is consistent with the staff's recommendation in IASB Agenda Paper 7B/FASB Agenda Paper 8B. This is also consistent with the staff's recommendation in the October 2010 IASB Agenda Paper 5A/FASB agenda paper 7A to use the price of the allowances as an input to measure the liability (ie so the assets and liabilities will be measured consistently in terms of price). For informational purposes, Appendix B includes an analysis of the application of the intended use model for purchased allowances described in IASB Agenda Paper 7B/FASB Agenda Paper 8B.

17. At the October 2010 joint meeting, the staff provided the boards with the following alternatives for determining the quantity of allocated allowances to be returned (when the allowances are allocated):

(a) *Expected return approach* - requires an entity to estimate the initial measurement of the quantity of allowances to be returned or submitted based upon expectations.

(b) *Derecognition approach* – requires the initial measurement of the quantity of allowances to be returned, as the total number of allowances allocated. Subsequent derecognition would be based upon passing a specified threshold.

18. The staff believe the two measurement approaches would be applied to the views in paragraph 15. The staff believe the expected return approach is consistent with Views 1 and 2 while the derecognition approach is consistent with View 3[2]. For

[2] The staff observe that an expected return could be used for View 3, however the staff believe that the derecognition approach fits better with this view because the timing of the recognition of the excess emissions is more akin to a 'virtually certain' or 'more likely than not' approach.

ease of reference, the staff have included an abbreviated[3] description of these approaches in Appendix A. The information in Appendix A has been adapted from the October 2010 IASB Agenda Paper 5A/FASB Memorandum 7A[4].

View 1: An entity is obligated to submit allowances for the entire scheme and thus must initially measure the liability based upon the quantity of its total expected emissions for the compliance period that those allocated allowances relate.

19. When an entity receives an allocation of allowances, View 1 requires an entity to recognise a liability to submit the total quantity of allowances expected to be required to offset emissions. This obligation would be measured based upon an entity's total expected emissions for a period, which the staff have assumed would be the compliance period[5] to which the allocated allowances relate. To calculate the quantity of allowances to be submitted, the entity would use the expected return approach as described in Appendix A. As described in Appendix A, an entity would reassess the quantity of allowances expected to be submitted at the end of each reporting period, if there are changes in facts and circumstances that may indicate a change in the estimates. In the staff's view, this would include consideration of the quantity of an entity's actual emissions.

20. Some board members expressed support for this view at the October 2010 board meeting because they believe that when an entity receives something of value for no monetary consideration, the receipt of value (e.g. allowances) creates a present

[3] The staff have not included pros and cons of each approach. Pros and cons are discussed in this memo in the context of the views outlined above.

[4] The information included in Appendix A has been summarized. Paragraph A2 also includes additional criteria for entities that expect to achieve a reduction in emissions.

[5] Given that scheme legislation (voluntary or statutory) may extend for a number of years, this view creates a number of practical difficulties, including what period an entity may be required to estimate its expected emissions. To assume that the obligation is measured only based upon the period to which the allocated allowances relate (ie a compliance period) seems inconsistent with the nature of the view that looks at obligations under the entire scheme. However, to assume that the obligation is measured based upon the entire length of the scheme, which may last 30 or more years, seems extraordinarily difficult. To complete the analysis of this view, the staff made an assumption that this view would only require an entity to measure the liability for the period for which an entity has received allocated allowances (ie the compliance period). The staff observe however that this assumption is difficult when considering that many schemes permit entities to 'bank' or carryforward allowances.

obligation for all future events that are related to that value received. It is important to note that in this view, if an entity does not receive an allocation of allowances, the entity would not recognise a liability until it emits.

21. View 1 differs from the staff recommendation presented in the October 2010 joint meeting in two ways. First, the liability for the allocation is not capped at the number of allocated allowances received. Thus, in this view when an entity receives an allocation of allowances, the entity becomes bound by all of the scheme requirements and therefore must recognise and measure the total liabilities that an entity expects as a result of participation in the scheme[6]. Second, View 1 does not distinguish between a liability for the allocation and a liability for excess emissions. Therefore, under View 1 an entity would recognize a single liability when an entity receives an allocation of allowances. The entity would also immediately recognise the total amount of expense for the cost of allowances to be submitted to offset expected emissions in the compliance period in excess of the allocation.

22. The following is an outline of the initial journal entry that the staff believes would result from an entity applying this view. This journal entry assumes the following:

    (a) The entity is an over emitter (ie expected emissions > initial allocation)

    (b) 1,000 allowances have been allocated,

    (c) expected emissions will require 2,000 allowances to settle (using an expected return approach as outlined in Appendix A),

    (d) price of allowances is $10, and

    (e) the compliance period is 4 years.

Initial Year 1 Entry

Dr. Allocated Allowances	$10,000	

[6] This issue illustrates the difficulty with View 1. For practical reasons, the staff have assumed that an entity is not obligated for the entire scheme, but rather just the compliance period. This is explained in footnote 5 above.

Dr. Emission Expense	$10,000	
Cr. Expected Emission Liability		$20,000

To record the initial allocation.

Note: In subsequent periods, the allocated allowances and expected emission liability would be remeasured to fair value. In addition, as the entity's total expected emissions change, emission expense and the expected emission liability would be adjusted. Journal entries are not provided for simplicity.

23. An entity that expects to emit less than the allocation (ie an under emitter), would also use an expected return approach. For instance, the example above could be revised to the following:

    (a) The entity is an under emitter (ie expected emissions < initial allocation)

    (b) 1,000 allowances have been allocated,

    (c) expected emissions will require 800 allowances to settle (using an expected return approach as outlined in Appendix A),

    (d) price of allowances are $10, and

    (e) the compliance period is 4 years.

Initial Year 1 Entry

Dr. Allocated Allowances	$10,000	
Cr. Gain		$2,000
Cr. Expected Emission Liability		$8,000

To record the initial allocation.

24. Thus, regardless of whether an entity expects to emit over or under the level of the allocation, when an entity receives an allocation of allowances, in View 1 an entity would calculate the total number of allowances it expects to submit using the expected return approach. This expected outcome would be based upon

expectations for the period for which an entity has received those allocated allowances (for simplicity, referred to as the compliance period hereafter).

25. The staff observe that this view eliminates volatility when an entity purchases allowances at the beginning of the period to cover future emissions regardless of whether the fair value with remeasurement or the intended use model is chosen to measure purchased allowances because this model recognizes the entire expected emission liability initially. However, this model will not eliminate volatility for an uncovered emission liability. This volatility will exist in all views and for both the fair value with remeasurement and the intended use model.

26. The staff do not believe View 1 is consistent with the conceptual framework. Specifically, the staff do not agree with the assertion that an entity has a *present* obligation when allowances are allocated for emissions in excess of those allocated allowances that will occur in the future.

View 2: An entity is obligated to return *only* the allocated allowances, (ie a maximum) and thus the liability for the allocation is capped at the quantity of allocated allowances. If the entity expects to emit more than the liability for the allocation for the compliance period (ie an over emitter), a liability for excess emissions is recognised as the entity emits throughout the compliance period.

27. View 2 is consistent with View 3 in that the initial liability for the allocation will be 'capped' at the number of allowances received and there are two distinct liabilities: (1) the liability for the allocation and (2) the liability for the excess emissions expected above the initial allocation of allowances for the compliance period.

28. However, where View 2 and View 3 differ are in the timing and method for recognizing the liability for excess emissions. View 2 accounts for a portion of the excess emissions as an entity emits throughout the compliance period[7], whereas

[7] As in View 1, the staff assumes the expected emissions in View 2 would be limited to the compliance period to which the allocation relates. This is the same assumption described under View 1.

View 3 recognizes a liability for the excess emissions when an entity's emissions exceed the quantity of allowances allocated.

29. As the entity emits throughout the period, a portion of that emission will be 'covered' by the allocated allowances while the remaining portion will not be covered when the entity expects to exceed the initial allocation. The uncovered portion should be recognised as a liability and an expense in the financial statements throughout the period. Not reflecting this expense in the financial statements until the entity exceeds its initial allocation (View 3) would suggest that the entity had no cost associated with its operations for that portion of the compliance period.

30. Upon emitting (assuming the entity expects to emit more than the allocation), an entity would recognize the liability for excess emissions using the expected return approach outlined in Appendix A. An entity would estimate its total expected emissions for the compliance period thereby calculating the total quantity of allowances required to settle all emissions liabilities for that compliance period. The entity would then compare its total quantity of allowances initially allocated to the total quantity of allowances required to offset expected emissions[8]. The ratio of allocated allowances to total allowances required provides the entity with its 'emissions coverage ratio'. As an entity emits, the actual emissions would be multiplied by (1 minus the emissions coverage ratio) to determine the amount of emissions that are not 'covered' by the allocated allowances and thus will be recognised as a liability for excess emissions.

31. For example, if the initial allocation only covers 60% (emissions coverage ratio) of the entities total quantity of allowances required to offset expected emissions for the compliance period, 60% of the emissions for the reporting period are considered covered by the allocation (for which a liability has already been recognized as the liability for the allocation). The remaining 40% (1 minus the

[8] The ratio is always based upon the initial allocation of allowances to total quantity of allowances required to settle expected emissions for the compliance period based upon an expected return model. The purchase of allowances does not change the emissions coverage ratio.

emissions coverage ratio) would be multiplied by the current period emissions and recognised as a liability for excess emissions and an expense.

32. As outlined in Appendix A, estimates would be reassessed each reporting period. An entity's emissions coverage ratio may change in subsequent reporting periods (ie because an entity's expected emissions may change). Thus, the liability for excess emissions should be adjusted each period based on the cumulative actual emissions, changes in an entity's emissions coverage and the amount of the liability for the excess emissions recognized in prior periods.

33. The following is an outline of the initial and subsequent period journal entries that the staff believes would result for an entity applying this view. The journal entries assume the following

    (a) The entity is an over emitter (ie expected emissions > initial allocation)

    (b) 1,000 allowances have been allocated,

    (c) expected emissions are equal each year (500 per year) and will require 2,000 allowances units to settle at the end of the compliance period,

    (d) the price of allowances are as follows: initial price - $10, year 1 through 4 - $12, $8, $10, and $11, and

    (e) the compliance period is 4 years. The example assumes the entity does not settle until the first day of the following compliance period for simplicity purposes.

Initial Year 1 Entry

Dr. Allowances	$10,000	
Cr. Liability for the Allocation		$10,000

To record the initial allocation.

(1,000 allowances * $10 price)

End of Year 1 Entries

Dr. Allowances	$2,000	
Cr. Liability for the Allocation		$2,000

To subsequently measure the allowances and liability at fair value.

(1,000 allowances * $2 price increase)

Dr. Emission Expense	$3,000	
Cr. Emission Liability		$3,000

To record the excess liability for Year 1.

(500 emissions * (1-50% emissions coverage) * $12 price)

End of Year 2 Entries

Dr. Liability for the Allocation	$4,000	
Cr. Allowances		$4,000

To subsequently measure the allowances and liability at fair value.

(1,000 allowances * $4 price decrease)

Dr. Emission Expense	$1,000	
Cr. Emission Liability		$1,000

To record the excess liability for Year 2.

[(1,000 emissions * (1-50% coverage) * $8 price) - $3,000 recognized in Year 1]

End of Year 3 Entries

Dr. Allowances	$2,000	
Cr. Liability for the Allocation		$2,000

To subsequently measure the allowances and liability at fair value.

(1,000 allowances * $2 price increase)

Dr. Emission Expense	$3,500	
Cr. Emission Liability		$3,500

To record excess liability for Year 3

[(1,500 emissions * (1-50% coverage) * $10 price) - $4,000 recognized in Years 1 and 2]

End of Year 4 Entries

Dr. Allowances	$1,000	
Cr. Liability for the Allocation		$1,000

To subsequently measure the allowances and liability at fair value.

(1,000 allowances * $1 price increase)

Dr. Emission Expense	$3,500	
Cr. Emission Liability		$3,500

To record the excess liability for Year 4

[(2,000 emissions * (1-50% coverage) * $11 price) - $7,500 recognized in Years 1, 2, and 3]

34. An entity that expects to emit less than the allocation (ie an under emitter), would also use an expected return approach. In the case of an under emitter, the entity

may be able to recognise a gain before the end of the compliance period, if the entity's expected emissions are less than that of the allocation. Additionally, there would be no recognition of expense as displayed in Years 1 through 4 above unless the entity's expectations changed to indicate more emissions than originally expected. (Journal entry not shown for simplicity.)

35. The staff observes this model would introduce volatility if an entity were to purchase allowances to settle future liabilities and that purchase did not coincide with the recognition of the liability for the excess emissions in both quantity and period purchased. To illustrate this, the staff adopted the same assumptions provided in paragraph 33 and added an additional assumption as follows: the entity purchases 500 allowances in the first year at a price of $11. The journal entries for Year 1 would be as follows:

Initial Year 1 Entry

Dr. Allowances	$10,000	
Cr. Liability for the Allocation		$10,000

To record the initial allocation.

(1,000 allowances * $10 price)

Purchase of Allowances in Year 1

Dr. Purchased Allowances	$5,500	
Cr. Cash		$5,500

To purchase allowances during the period.

(500 allowances * $11)

End of Year 1 Entries

Dr. Allowances	$2,000	

	Cr. Liability for the Allocation	$2,000

To subsequently measure the allowances and liability at fair value.

(1,000 allocated allowances * $2 price increase)

Dr. Purchased Allowances	$500	
	Cr. Gain	$500

To subsequently measure the purchased allowances at fair value

(500 purchased allowances * $1 price increase)

Dr. Emission Expense	$3,000	
	Cr. Emission Liability	$3,000

To record excess liability for Year 1.

(500 emissions * (1-50% coverage) * $12 price)

Note: The staff have only provided the first year journal entries for simplicity purposes to illustrate the volatility. The journal entries for remeasurement and liability recognition would remain the same in subsequent years, with changes in amounts due to price changes. The staff observe we have presented the remeasurement of the purchased allowance as a gain, however this could also be presented as a reduction in expense.

36. The staff observe the volatility to the entity's earnings in the expanded example is due to the difference in timing between the purchase of additional allowances and recognizing the liability for excess emissions at year end. Volatility would also be created if an entity were to purchase a different quantity of allowances than were required for that period.

37. Some board members have suggested introducing an intended use model to eliminate the volatility created by the purchased allowances. The staff have

analyzed an intended use model for measuring purchased allowances at IASB Agenda Paper 7B/FASB Agenda Paper 8B. In addition to that analysis provided, the staff have provided a further expansion of the View 2 example in Appendix B to illustrate how an intended use model for measuring purchased allowances would work.

38. Those that support View 2 believe that recognising the expected emission above the initial allocation throughout the compliance period is in accordance with the conceptual framework because as an entity emits, it incurs a present obligation to submit allowances above the allocation. In other words, they believe that the obligating event for this excess liability occurs when the entity emits.

View 3: An entity is obligated to return *only* the allocated allowances, (ie a maximum) and thus the liability for the allocation is capped at the quantity of allocated allowances. A liability for excess emissions is recorded upon actual emissions exceeding the liability for the allocation

39. View 3 is consistent with View 2 in that the initial liability for the allocation will be 'capped' at the number of allowances received and there are two distinct liabilities: (1) the liability for the allocation and (2) the liability for the excess emissions expected above the initial allocation of allowances for the compliance period.

40. However, where View 3 and View 2 differ are in the timing and method for recognizing the liability for excess emissions. View 3 recognizes a liability for the excess emissions when an entity's emissions exceed the quantity of allowances allocated whereas View 2 accounts for a portion of the total expected emissions as an entity emits throughout the compliance period.

41. The following is an outline of the initial and subsequent period journal entries that the staff believes would result for an entity applying this view. The journal entries assume the following:

    (a) The entity is an over emitter (ie expected emissions > initial allocation)

    (b) 1,000 allowances have been allocated,

(c) expected emissions are equal each year (500 per year) and will require 2,000 allowances to settle at the end of the compliance period,

(d) price of allowances are as follows: initial price - $10, year 1 through 4 - $12, $8, $10, and $11, and

(e) the compliance period is 4 years. The example assumes the entity does not settle until the first day of the following compliance period for simplicity purposes.

Initial Year 1 Entry

Dr. Allowances	$10,000	
Cr. Liability for the Allocation		$10,000

To record the initial allocation.

(1,000 allowances * $10 price)

End of Year 1 Entry

Dr. Allowances	$2,000	
Cr. Liability for the Allocation		$2,000

To subsequently measure the allowances and liability at fair value.

(1,000 allowances * $2 price increase)

End of Year 2 Entry

Dr. Liability for the Allocation	$4,000	
Cr. Allowances		$4,000

To subsequently measure the allowances and liability at fair value.

(1,000 allowances * $4 price decrease)

End of Year 3 Entries

Dr. Allowances	$2,000	
Cr. Liability for the Allocation		$2,000

To subsequently measure the allowances and liability at fair value.

(1,000 allowances * $2 price increase)

Dr. Emission Expense	$5,000	
Cr. Emission Liability		$5,000

To record the excess liability.

(500 emissions * $10 price)

End of Year 4 Entries

Dr. Allowances	$1,000	
Cr. Liability for the Allocation		$1,000

To subsequently measure the allowances and liability at fair value.

(1,000 allowances * $1 price increase)

Dr. Emission Expense	$6,000	
Cr. Emission Liability		$6,000

To record the excess liability.

[(1,000 emissions * $11 price) - $5,000 recognized in Year 3]

42. Because View 3 does not require an entity to recognise a liability for emissions in excess of the allocation until they actually occur, an entity will not apply an expected return approach. Furthermore, for entities that expect to emit less than

the allocation (ie an under emitter), a derecognition approach would be used to measure the liability for the allocation. This approach is outlined in Appendix A.

43. As in View 2, the staff observe this model would introduce volatility if the entity were to purchase allowances to settle future liabilities and that purchase did not coincide with the recognition of the liability for the excess emissions in both quantity and period purchased. The staff have provided an example of this volatility under View 2. The staff note that the volatility under View 3 may be more pronounced in the early stages of the compliance period if an entity were to purchase allowances in those periods. This is because View 3 does not recognize the excess liability and the related expense until the initial allocation has been exceeded.

44. Similarly for View 3, if an intended use approach is selected by the boards, the issues illustrated in the example in Appendix B would also occur under this view. In fact, these issues may be more pronounced under View 3 later in the compliance period because the expense may not be recognized until the end of the compliance period.

45. View 3 explains that when an entity produces emissions in excess of the liability for the allocation, the entity incurs an obligation to purchase[9] additional allowances and provide them to the scheme administrator to offset its excess emissions[10] (ie a liability for excess emissions). The entity must recognise this liability for excess emissions *only* when its emissions exceed the liability for the allocation because this is when the definition of a liability in the boards' Frameworks is met[11] (ie the obligating event is the occurrence of the excess emission). In addition, the entity would recognise an expense when the quantity of its emissions exceed its allocation.

Pros and Cons of all Views

[9] These additional allowances will generally be obtained by way of purchase in the market.
[10] Current schemes permit entities to fulfill the obligations for emissions by providing allowances.
[11] The staff concluded that this liability clearly meets the definition of a liability and the related recognition criteria. The staff have therefore not included this analysis in this paper.

46. Proponents of View 1 believe that when an entity receives an allocation of allowances, the entity has an obligation to comply with the requirements of an emission trading scheme. Those requirements result in a liability to submit allowances for future emissions that may exceed the allowances initially received. These proponents believe that it would be misleading to users to not recognize the entire liability related to the scheme when an entity receives an allocation of allowances.

47. Because View 1 requires an entity to recognize the entire liability when an entity receives an allocation of allowances, proponents of View 1 also believe that this view is consistent with the models that accrue an initial liability for the contract in a lease or an insurance contract. The initial liabilities in these contracts may be contingent upon future events similar to a liability under an emission trading scheme.

48. Proponents of View 1 also believe that it is inappropriate for an entity to ignore the expected emissions above the allowances initially received when measuring the liability at the time of the allocation. If expected emissions are ignored, an entity would be in a net asset position simply by purchasing additional allowances. They believe this is not representationally faithful if the entity's intent for purchasing the additional allowances is to settle the expected future emissions under the scheme.

49. Proponents also believe View 1 will eliminate volatility in earnings if a fair value with remeasurement model is chosen for measuring the allowances *and* an entity has purchased additional allowances at the beginning of the year to cover the liability. These proponents do not believe this volatility is warranted considering the entity intends to use the allowances to settle its emission liability under the scheme. They view the purchased allowances as a cost of production, and thus, they should be measured like other inventory, and the entity should not be subject to volatility in earnings for prices changes.

50. Opponents of View 1 believe that recognising a liability for an entity's emissions under the entire scheme upon receipt of the allocated allowances does not meet the

definition of a liability in the boards' frameworks. Specifically, an entity does not have a *present* obligation for emissions that will occur in the future. Furthermore, the receipt of allocated allowances does not result in a contract like a lease or an insurance contract, at least for a statutory scheme where the terms of the scheme are imposed upon an entity. Upon receiving the allocation, an entity has an obligation to return only those allocated allowances (or reduce its emissions below the level of the allocated allowances). The entity does not, however, have an obligation to submit additional allowances, until an entity emits.

51. Opponents of View 1 also think that it is inconsistent that an entity that receives an allocation of allowances should recognise a liability for its emissions for the entire compliance period, while an entity that does not receive an allocation of allowances will only recognise a liability as it emits (ie over time).

52. Proponents of View 2 and View 3 believe there are two distinct liabilities that should be recognized under the scheme, however they disagree as to when the liabilities should be recognized. Proponents of View 2 and View 3 agree the liability for the allocation should be measured at the quantity of allowances allocated.

53. However, proponents of View 2 believe it is misleading for an entity to wait until that initial allocation is exceeded before recognizing any excess emission liability. Proponents of View 2 believe that because an entity operates throughout the period, it should recognize an expense related to those operations if it expects to emit above the allocation for the compliance period. Waiting until later in the period is not representationally faithful nor does it provide relevant information for users of financial statements. They believe this approach will not shed adequate light on large emitters that may have annual emissions that may well exceed the allocated allowances.

54. Proponents of View 2 believe this view is consistent with the method for accruing interim period tax expense. 'Interim period tax expense is accrued using the tax rate that would be applicable to expected total annual earnings, that is, the estimated average annual effective income tax rate applied to the pre-tax income

of the interim period'[12]. Furthermore, the proponents of View 2 believe that the guidance in IAS 34, paragraph B16 could be adopted and applied to entities that change their expectation within a compliance period from expecting to emit beyond the allocation (ie an over emitter) and then below the allocation (ie an under emitter).

55. Proponents of View 3 believe primarily that under Views 1 and 2 the definition of a liability under the boards' respective frameworks have not been met until an entity emits in excess of the allocation. Specifically, an entity is not presently obligated for future emissions until the entity's emissions have exceeded the initial allocation. Thus, because an entity is not presently obligated, it is simply recognizing measurement differences of expected future emissions and not actual emissions incurred.

56. Proponents of View 3 observe that if an entity were to expect to emit above the allocation under View 2 it would record a portion of that expectation that is uncovered. However, when the entity's expectation changes to expecting to emit below initial allocation, the accounting becomes difficult because an expense that has been recognized would then need to be reversed. One can easily begin to see that the entity could manipulate earnings by changing its expectation. Furthermore, because of this method of recognizing expenses and potential gains, View 2 does not provide better information to users of financial statements than View 3 and therefore the costs of the associated complexities of View 2 do not outweigh the benefits.

57. Proponents of View 3 also observe that because View 2 utilizes an expected return approach, a time horizon for the expectation must be defined. Using the period to which the allocation relates (which the staff have assumed is the compliance period) appears arbitrary and proponents of View 3 question why another time frame could not have also been as easily selected.

[12] Paragraph B12 of IAS 34 *Interim Financial Reporting*.

58. Opponents of Views 2 and 3 are concerned with the net asset position and volatility under those views if an entity purchases allowances. These issues are discussed under the proponents for View 1.

Staff Recommendation

59. Some staff recommend View 2 while other staff recommend View 3. Both of these views indicate that when an entity is allocated allowances it is obligated to return ***only*** those allocated allowances, (ie a maximum) and thus the liability for the allocation is capped at the quantity of allocated allowances received. View 2 differs from View 3 in the timing of recognition for emissions in excess of the liability for the allocation. View 2 indicates that if the entity expects to emit more than the liability for the allocation for the compliance period (ie over emitter), a liability for excess emissions is recognised as the entity emits throughout the compliance period. View 3 indicates that a liability for excess emissions is only recognised when actual emissions exceed the liability for the allocation.

60. The staff that support View 2 believe that because an entity operates throughout the period, it should recognize an expense for the cost of emissions above the allocation that are related to those operations. Thus, View 2 accrues a portion of the expected total cost of emissions throughout the period. Waiting until later in the period, when emissions actually exceed the allocation, is not representationally faithful nor does it provide relevant information for users of financial statements. Furthermore, the staff believe View 2 is in accordance with the boards' respective conceptual frameworks because as an entity emits, it incurs a present obligation to submit allowances above the allocation.

61. The staff that support View 3 believe that the recognition of the liability for excess emissions is the only approach that fits in the boards' respective conceptual frameworks. This is because a present obligation only exists if an entity cannot avoid it, which does not occur until an entity's emissions exceed the liability for the allocation. In addition, those staff are concerned with recording expenses based on an expectation that may change over time possibly causing the entity to

reverse those expenses in future periods. Additionally, those staff struggle with defining the period to which the allocation relates and for which an entity would estimate its expected emissions (assumed to be compliance period in this paper).

Question 1
Q1: Some staff recommend View 2 while other staff recommend View 3. Which view do the boards prefer and why?

Appendix A

Summary of the expected return and derecognition approach

Expected return approach

A1. An entity would initially measure the quantity of allowances to be returned by estimating the number of the allocated allowances that it expects to return (ie the expected outcome). The expected outcome is the mean, ie the probability-weighted average of a reasonable number[13] of possible outcomes[14].

A2. The expected outcome would be determined using all relevant information. Relevant information may include (for example) an entity's levels of expected emissions in the light of production plans and actual implementation of methods to reduce emissions. Expectations to reduce emissions should not be made without sufficient evidence that would include specific and detailed plans that defines the activities required to achieve emission reductions. This plan must be approved by an appropriate level of management and actions to implement the plan must have already begun, or will begin immediately. In addition, it must be unlikely that an entity will experience significant changes to this emission reduction plan[15].

A3. When determining subsequent measurement of the quantity of allowances to be returned, an entity would reassess the expected outcome if there is a change in facts and circumstances that may indicate a change in the estimates in the quantity of allowances to be returned from the previous reporting period[16].

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[13] Paragraph 14 of exposure draft *Leases.* Paragraph B21 indicates that 'an entity need not assess every possible outcome to identify the reasonably possibly outcome' to be able to assess the expected outcome.

[14] This calculation may also require an entity to consider a risk adjustment. A risk adjustment quantifies the risk that expectations to return allowances may differ from actual. The staff note that this issue is being discussed in other projects. The staff propose to bring this issue back to the boards at a future meeting.

[15] Similar conditions exists in ASC Topic 420 *Exit or Disposal cost obligations* for determining if an obligation exists for one-time employee termination benefits. The staff believe that these conditions are necessary for the expected return approach, because an entity's reduction in emissions is within their control. The staff have not included the condition of 'communicating the plan', because it is not relevant for an emission reduction plan.

[16] Paragraph 17 of the exposure draft *Leases* indicates 'the lessee shall reassess the carrying amount of the liability to make lease payments arising from each lease if facts and circumstances indicate that there would be a significant change in the liability since the previous reporting period.'

Derecognition approach

A4. The derecognition approach measures the quantity of allowances to be returned, initially, as the total number of allowances allocated.

A5. Subsequently[17] the entity would assess when it can decrease that quantity of allowances to be returned, because the entity can reduce its emissions below the allocation and thus is not required to return the allocated allowance. An entity would reassess at each reporting period whether it can decrease the quantity of allowances to be returned.

A6. By decreasing its estimate of the quantity of allowances to be returned, the entity is derecognising a portion of the liability for the allocation (which will thus be recognised as earnings). Essentially, this portion of the liability no longer qualifies as a liability, because the entity is no longer required to transfer economic resources to settle the obligation (ie the entity is no longer required to return those allowances, or reduce emissions.) The next issue in applying this approach is therefore assessing when the entity is no longer required to return the allowance, or in other words, when the entity can conclude that it has reduced its emissions.

A7. The staff believe that the boards could conclude that an entity has reduced emissions, and thus can decrease the quantity of allocated allowances to be returned, by specifying one of the following criterion:

i. Virtually certain; or

ii. Probability threshold.

(a) Virtually certain

A8. This criterion would require the entity be virtually certain it will reduce its emissions below the allocation of allowances before it can reduce the quantity of allowances to be returned.

[17] We have used the term 'subsequently' to mean 'after initial measurement', but theoretically this could mean immediately after initial measurement (ie also on 'Day 1').

A9. An entity may assess whether it is virtually certain it has reduced emissions at any time. If the relevant factors are present at initial measurement (ie 'Day 1'), this may result in an entity decreasing the quantity of allowances at the time of initial measurement of the liability for the allocation. This may occur for example if an entity has shut down all or a significant portion of its operations, or has significantly decreased its production plans and thus is virtually certain its emissions will be below that of the allocated allowances.

A10. However, in normal circumstances this approach may result in an entity waiting until the end (or near the end) of the compliance period before concluding that it is virtually certain it has reduced emissions and thus not be required to return all of the allocated allowances. It would be problematic if an entity reduced the quantity of allowances to be returned using this criteria, and then subsequently assessed that it hadn't reduced emissions, and thus was required to increase the quantity of allowances to be returned for all, or a portion of the previous reduction.

(b) Probability threshold

A11. The probability threshold criteria requires an entity to assess the likelihood that it will reduce its emissions (below the allocation) against a specified probability threshold before it can decrease the quantity of allowances to be returned and thus derecognise a portion of the liability for the allocation. One possible threshold is:

i. *More Likely Than Not*[18] – An entity would conclude that it can reduce its emission below the allocation if the probability that it will reduce its emission is greater than the probability that it will not.

A12. This model may yield fluctuations in the liability (ie an entity may derecognise the liability for the allocation if the more likely than not threshold is met but then may have to re-recognise that liability if the threshold is not met in a future period).

[18] This notion of *more likely than not* is defined as 'probable' in paragraph 23 of IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*. The phrase is also consistent with ASC Topic 740 Taxes that defines 'more likely than not' to mean there is a likelihood of more than 50% that the future event would occur.

Appendix B

Application of intended use model for purchased allowances to View 2

B1. The below example was adapted from the example provided in paragraph 35. However, this example uses an intended use model for the measurement of the purchased allowances (the allocated allowances continue to be measured at fair value with remeasurement). The journal entries for year 1 would be as follows:

Initial Year 1 Entry

Dr. Allowances	$10,000	
Cr. Liability for the Allocation		$10,000

To record the initial allocation.

(1,000 allowances * $10 price)

Purchase of Allowances in Year 1

Dr. Purchased Allowances	$5,500	
Cr. Cash		$5,500

To record the purchase allowances during the period.

(500 allowances * $11)

End of Year 1 Entries

Dr. Allowances	$2,000	
Cr. Liability for the Allocation		$2,000

To subsequently measure the allowances and liability at fair value.

(1,000 allocated allowances * $2 price increase)

Dr. Emission Expense	$2,875	
Cr. Emission Liability		$2,875

To record excess liability for Year 1.

(500 emissions * .5 (1-50% coverage) * $11.50 blended price)

Blended Price Determination

500 Purchased Allowances * $11 = $5,500

500 Yet to be Purchased Allowances * $12 = $6,000

Total Cost of Pool of Allowances = $11,500

Blended Price = $11,500/1,000 (excess allowances expected to be needed) = $11.50

B2. Under View 2, if an intended use model is chosen for the purchased allowances, an entity will need to calculate a blended price of allowances that is representative of the exposure an entity has to fair value price changes for those allowances that have not yet been purchased. If all allowances are purchased on day one to settle the liability for the excess emissions (in this example 1,000 allowances), the entity would record the liability for the excess emissions at the price paid for the purchased allowances because it would not be exposed to price fluctuations as all the allowances have been purchased. However, if an entity did not purchase all the allowances on day one, when the liability is recognized for the excess emissions, it will be an uncovered liability and thus the entity is exposed to price fluctuations for the quantity of allowances that it is 'short'.

B3. Using an intended use approach to measure purchased allowances under View 2 could have potential consequences for financial reporting based upon an entity's timing of purchases, notwithstanding the other issues highlighted in IASB Agenda Paper 7B/FASB Agenda Paper 8B. Two entities (Entities A and B) that have the same operations could have vastly different expenses recorded for those operations from period to period based upon the timing of purchases of allowances and the price in the market at the time of the purchase. For example, if we

examine the expense recorded in the example portrayed in paragraph B1 above, if Entity A purchased the allowances at $5 and Entity B purchased the allowances at $20 the blended rates at the end of Year 1 would be calculated as follows:

Blended Price Determination for Entity A

500 Purchased Allowances * $5 = $2,500

500 Yet to be Purchased Allowances * $12 = $6,000

Total Cost of Pool of Allowances = $8,500

Blended Price = $8,500/1,000 (excess allowances expected to be needed) = $8.50

Expense recorded in Year 1 for excess emissions: $2,125

Blended Price Determination for Entity B

500 Purchased Allowances * $20 = $10,000

1,500 Yet to be Purchased Allowances * $12 = $6,000

Total Cost of Pool of Allowances = $16,000

Blended Price = $16,000/1,000 allowances expected to be needed above allocation = $16.00

Expense recorded in Year 1 for excess emissions: $4,000

B4. As illustrated in the simple example above, the expense recorded in the first year for excess emissions are vastly different simply based upon the timing of when the entities purchased the allowances. Some would suggest it is not representationally faithful for there to be this much of a disparity between two entities with the same operations simply based upon timing in the market.