

# STAFF PAPER

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## Prepared for the joint Capital Markets Advisory Committee and Global Preparers Forum Meeting

Project	Pollutant Pricing Mechanisms		
Paper topic	Example—cap-and-trade emission trading scheme		
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### Introduction

- 1 The purpose of this Agenda Paper is to provide members of the Capital Markets Advisory Committee (CMAC) and Global Preparers Forum (GPF) with a practical example to discuss within four break-out groups during the Joint CMAC/GPF meeting.
- 2 This Agenda Paper sets out a simplified fact pattern for four participants in a new cap-and-trade style emissions trading scheme (ETS). The background facts about the scheme apply equally to all four participants. Entity-specific information is then provided for each of the four participants, to explore different scenarios.
- 3 During the break-out sessions, we would like members to consider what information they think is most relevant to include in the financial statements for each of the four entities. In particular, we would like each group to identify what assets, liabilities, gains and losses they would find useful to report, or to see reported, in the financial statements on 1 January 2015, 31 December 2015 and at the end of any interim financial reporting period.

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Information about the Capital Markets Advisory Committee (CMAC) is available at <http://www.ifrs.org/The-organisation/Advisory-bodies/CMAC/Pages/CMAC.aspx>

Information about the Global Preparers Forum (GPF) is available at <http://www.ifrs.org/The-organisation/Advisory-bodies/Pages/Global-preparers-forum.aspx>

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- 4 We would like members to focus on the nature of any items to be recognised, when they should be recognised and how they should be measured, instead of trying to calculate any amounts involved.
- 5 Because the allocated time will not permit every group to address every scenario, we have allocated a different scenario to each group. During the session in which the group leaders report back on the conclusions of their own group's discussion, we encourage all members to also take part in discussing the conclusions of the other groups.

### **General fact pattern applicable to all four participants**

- 6 The following information relates to four entities, each of which publishes IFRS financial statements and carries out business operations in Country X. Each entity prepares annual financial statements for the calendar year and quarterly interim financial statements.
- 7 Up to and including the year-ended 31 December 2014, there were no restrictions on the number of tonnes of carbon dioxide equivalents (tCO<sub>2</sub>e) that each entity could emit. During the year 2013, the government of Country X announced that, from 1 January 2015, a new cap-and-trade ETS would apply to 100 named entities (the participants) that operate specified installations that have been identified as emitting material quantities of greenhouse gases.
- 8 As part of the announcement, the government confirmed that in 2015, the first year of the scheme, it would issue, free of charge, allowances equivalent to the volume of tCO<sub>2</sub>e emitted by the 100 named participants during the base measurement year of 1 July 2013 to 30 June 2014. The number of free allowances allocated will form the 'baseline' cap on total tCO<sub>2</sub>e emissions by all 100 participants for the year ended 31 December 2015.
- 9 Allowances will be allocated only to participants in the scheme, in the quantities announced at the start of the commitment period. The government will not sell or otherwise issue any other allowances. Participants can sell their allocated

allowances, either to other participants in the scheme or to other entities that are not participants but that may wish to trade in allowances.

- 10 The first phase of the scheme consists of a 5-year commitment period. This commitment period is divided into five compliance years, each ending 31 December. During this 5-year commitment period, the total number of free allowances allocated to participants will be reduced annually, on a straight-line basis. As a result, the number of free allowances to be allocated in the fifth year, that is, for the 2019 compliance year, will be 20 per cent lower than for 2015.
- 11 The government will transfer allowances allocated free of charge to participants on 1 January each year, beginning on 1 January 2015. On or before 1 April each year, beginning on 1 April 2016, participants must deliver to the government, which acts as the ETS administrator, the number of allowances that are equivalent to their actual tCO<sub>2</sub>e emissions for the preceding compliance year.
- 12 The allowances are not ‘dated’. This means that an entity can carry forward unused allowances to future years and carry back allowances received for the next compliance year to the previous compliance year. For example, allowances received on 1 January 2016 can be submitted to the government:
  - (a) on 1 April 2016 to satisfy the obligation arising from tCO<sub>2</sub>e emissions during the compliance year 2015; or
  - (b) on 1 April 2017 to satisfy the obligation arising from tCO<sub>2</sub>e emissions during the compliance year 2016; or
  - (c) on 1 April 2018 or 2019 to satisfy the obligation arising from tCO<sub>2</sub>e emissions during the compliance year 2017 or 2018.
- 13 Each of the 100 named participants will receive its annual allocation of allowances as long as the specified installation is operating on 1 January in each compliance year. If a participant ceases production at the specified installation, it will have an obligation to return the number of allowances equivalent to its tCO<sub>2</sub>e emissions up to the date of closure. It is not obliged to return any unused allowances. However, after production ceases, the entity will not receive any

further allowances for the remaining years within the commitment period, unless production is transferred to an approved replacement installation.

- 14 On 1 January 2015, the government issued allowances equivalent to 200,000 tCO<sub>2</sub>e. The market value of allowances was CU10<sup>1</sup> on 1 January 2015, CU9 on 31 December 2015 and CU14 on 1 April 2016.

## **Specific fact patterns applicable to individual participants**

### ***Entity 1***

- 15 On 1 January 2015, Entity 1 received 5,000 allowances, which are equivalent to 5,000 tCO<sub>2</sub>e emissions. This is equal to the amount of emissions that Entity 1 expects to emit during 2015.
- 16 The management of Entity 1 do not intend to buy or sell any allowances during 2015. They intend to hold the 5,000 allowances and use them to settle the expected obligation to submit 5,000 allowances to the government on 1 April 2016.
- 17 During 2015, Entity 1 emitted 5,000 tCO<sub>2</sub>e. It did not buy or sell any allowances during 2015 and submitted the 5,000 allowances received in January 2015 to the government on 1 April 2016.
- 18 Entity 1 was still operating on 1 January 2016 and received its promised allocation of 4,750 allowances for the 2016 compliance year  $[5,000 - (5,000 \times 20\% / 4 \text{ years})]$ , see paragraph 10].

### ***Entity 2***

- 19 On 1 January 2015, Entity 2 received 5,000 allowances, which are equivalent to 5,000 tCO<sub>2</sub>e emissions. This is equal to the amount of emissions that Entity 2 expects to emit during 2015.

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<sup>1</sup> In this agenda paper, currency amounts are denominated in ‘currency units’ (CU).

- 20 The management of Entity 2 intend to hold 3,000 of the allowances received and use them to settle part of the expected obligation to submit 5,000 allowances to the government on 1 April 2016. The remaining 2,000 allowances will be traded in the market, with the aim of making short-term profits before using them to settle the remaining portion of the expected obligation to submit 5,000 allowances to the government on 1 April 2016.
- 21 During 2015, Entity 2 emitted 5,000 tCO<sub>2</sub>e. It sold 2,000 allowances on 1 January 2015 for CU20,000 ( $2,000 \times \text{CU}10$ ) and bought 2,000 allowances on 31 December 2015 for CU18,000 ( $2,000 \times \text{CU}9$ ). Entity 2 submitted the 3,000 allowances received in January 2015 plus the 2,000 purchased in December 2015 to the government on 1 April 2016.
- 22 Entity 2 was still operating on 1 January 2016 and received its promised allocation of 4,750 allowances for the 2016 compliance year [ $5,000 - (5,000 \times 20\% / 4 \text{ years})$ , see paragraph 10].

### **Entity 3**

- 23 On 1 January 2015, Entity 3 received 5,000 allowances, which are equivalent to 5,000 tCO<sub>2</sub>e emissions. This is 500 tCO<sub>2</sub>e less than the 5,500 tCO<sub>2</sub>e of emissions that Entity 3 expects to emit during 2015.
- 24 The management of Entity 3 do not intend to sell any allowances during 2015. They intend to hold the 5,000 allowances allocated free of charge and use them to settle part of the expected obligation to submit 5,500 allowances to the government on 1 April 2016. Entity 3 intends to monitor the price of allowances in the market before deciding when to purchase the additional 500 allowances needed to settle its expected compliance obligation.
- 25 During 2015, Entity 3 emitted 5,500 tCO<sub>2</sub>e. It did not sell any allowances during 2015. It purchased the additional 500 allowances needed on 4 February 2016 at a cost of CU11 per tCO<sub>2</sub>e. Entity 3 submitted 5,500 allowances to the government on 1 April 2016.

- 26 Entity 3 was still operating on 1 January 2016 and received its promised allocation of 4,750 allowances for the 2016 compliance year  $[5,000 - (5,000 \times 20\% / 4 \text{ years})]$ , see paragraph 10].

#### **Entity 4**

- 27 On 1 January 2015, Entity 4 received 5,000 allowances, which are equivalent to 5,000 tCO<sub>2</sub>e emissions. This is 400 tCO<sub>2</sub>e more than the 4,600 tCO<sub>2</sub>e of emissions that Entity 4 expects to emit during 2015. Late in 2014, one of Entity 4's major customers decided not to renew its contract with Entity 4. Until Entity 4 finds a replacement customer, its production levels and consequential amounts of tCO<sub>2</sub>e emissions are expected to remain below its 2013-14 baseline level.
- 28 The management of Entity 4 do not intend to sell any allowances during 2015. They intend to hold the 5,000 allowances allocated free of charge and use them to settle the expected obligation to submit 4,600 allowances to the government on 1 April 2016. The remaining 400 allowances will be retained until Entity 4 can establish whether it can increase its sales levels to make up for the lost customer and return to its previous production levels. If production levels do not increase, the management of Entity 4 will establish a policy for selling its surplus allowances.
- 29 During 2015, Entity 4 emitted 4,600 tCO<sub>2</sub>e. It did not sell any allowances during 2015. Entity 4 submitted 4,600 allowances to the government on 1 April 2016 and retained the remaining 400 allowances for future use or sale, depending on its future emission levels. Entity 4 is still actively seeking to find new customers and increase its sales (and production) to previous levels.
- 30 Entity 4 was still operating on 1 January 2016 and received its promised allocation of 4,750 allowances for the 2016 compliance year  $[5,000 - (5,000 \times 20\% / 4 \text{ years})]$ , see paragraph 10].

**Entity 5**

- 31 On 1 January 2015, Entity 5 received 5,000 allowances, which are equivalent to 5,000 tCO<sub>2</sub>e emissions. This is equal to the amount of emissions that Entity 5 expected to emit during 2015, using its existing production equipment. However, during December 2014, the management of Entity 5 approved plans to install new equipment that utilises more energy efficient technology and is expected to reduce the level of tCO<sub>2</sub>e emitted during the production process. This equipment will replace old, less environmentally efficient technology that is currently in use.
- 32 During January 2015, the new equipment was installed at a cost of CU35,000 and the old equipment was sold for CU7,000, creating a loss on disposal of CU12,000. Despite some problems with efficiency in first three months of use, the new equipment reduced emissions. This resulted in a total of 4,250 tCO<sub>2</sub>e being emitted in the year 2015.
- 33 Entity 5 did not buy or sell any allowances during 2015. It submitted 4,250 allowances received in January 2015 to the government on 1 April 2016, and sold the 2015 surplus in the market on the same day for CU10,500 ( $750 \times \text{CU}14$ ).
- 34 Entity 5 was still operating on 1 January 2016 and received its promised allocation of 4,750 allowances for the 2016 compliance year [ $5,000 - (5,000 \times 20\% / 4 \text{ years})$ , see paragraph 10].