

Deloitte Foundation/Federation of Schools of Accountancy (FSA) Faculty Consortium

*FASB and IASB's –
Emissions Trading Schemes (ETS) Project –
A Case Study*

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Agenda

1. Background
2. Case studies
3. Debrief case studies

Why are ETS created?

- Environmental legislation resulting from concerns about climate change
- One example of legislation : Emission trading schemes (ETS)
- Established as a means to implement the emission targets set as part of Kyoto protocol

How do they work?

- ETS implements broad emission targets by establishing an overall cap on emissions of entities subject to the scheme
- Overall cap is implemented differently depending on the type of scheme

Examples of ETS

Emissions Trading schemes	Cap & trade schemes	Baseline & credit schemes
•Statutory schemes (mandatory)	•European Union Greenhouse Gas Emissions Trading Scheme (EU ETS)	•New South Wales Greenhouse Gas Reduction Scheme (GGAS)
•Non-statutory schemes (voluntary)	•Chicago Climate Exchange (CCX)	•Clean Development Mechanism (CDM)

Main features of ETS (comparison of cap and trade and baseline and credit)

type of scheme	cap & trade	baseline & credit
cap on emissions	units of emissions that may be released within commitment period	
implementation of cap	allowances up to cap (a) free allocation to entities and/or (b) sale of allowances	baselines up to cap free allocation to entities
trading mechanism	allowances are tradable	baseline is not tradable credits are tradable
offsetting emissions	allowances covering <i>total</i> emissions	credits covering only emissions in <i>excess</i> of baseline

Cap and trade scheme – basic features

- Uses a paperless concept referred to as ‘allowances’ to regulate emissions
- Scheme requires an entity to provide scheme administrator with an allowance for every unit of emissions
- Overall cap on emissions is implemented by limiting the total number of allowances and imposing penalties
- Allowances are provided by the scheme administrator in 2 ways:
 - By way of general auction
 - Free allocation to individual entities
- Allowances are freely tradable

Baseline and credit – basic features

- Uses the concept of baselines to regulate emissions
- Baselines provide an upper limit for total amount of units of emissions by entity
- Overall cap on emissions is implemented by limiting the cumulative total of the baselines
- Baselines are assigned to specific entities and cannot be traded
- ‘Credits’ are issued to entities who emit less than their baseline, and are required to be provided by entities who emit greater than their baseline
- Credits are similar to allowances and are freely tradable

Statutory and non-statutory (voluntary) schemes

- Both types of schemes can be either statutory or non-statutory
- Statutory scheme is government imposed and participation is mandatory. *Example: EU ETS*
- Non-statutory scheme involves voluntary participation. *Example: Chicago Climate Exchange*

Withdrawal of IFRIC 3

- 2002 IFRIC began developing an interpretation of how to account for ETS
- IFRIC 3 issued in 2004 - met with resistance
- Noted in 2005 that market for allowances in EU were not developing as well as initially thought
- IFRIC 3 was withdrawn in 2005
- Since withdrawal, divergent accounting practices have developed

Adding ETS to the agenda

- More and more jurisdictions are introducing some form of ETS
- Divergence in accounting practices for ETS
- Requests from other national standard setters to add project to agenda
- FASB and IASB decided to make ETS a joint project in 2007

Case studies

Accounting for Emissions Allowances Issued under Cap-and-Trade Programs

- A number of companies currently participate in cap-and-trade programs.
- There is no authoritative guidance from the IASB or the FASB on how to account for emissions allowances
 - Only accounting guidance available in U.S. that explicitly addresses emissions allowances is contained in the Federal Energy Regulatory Commission's (FERC) Uniform System of Accounts.
- FERC requires public utilities (and other regulated energy entities) to:
 - recognize allowances on a historical cost basis;
 - expense allowances as actual emissions occur;
 - accrue estimated cost of obtaining additional allowances (if actual emissions exceed allowances held).
- FASB and IASB staff believe most companies account for allowances in a manner similar to that required by FERC.

Cost of allocated allowances = Nil

FERC Guidance

Actual emissions < Allowances held

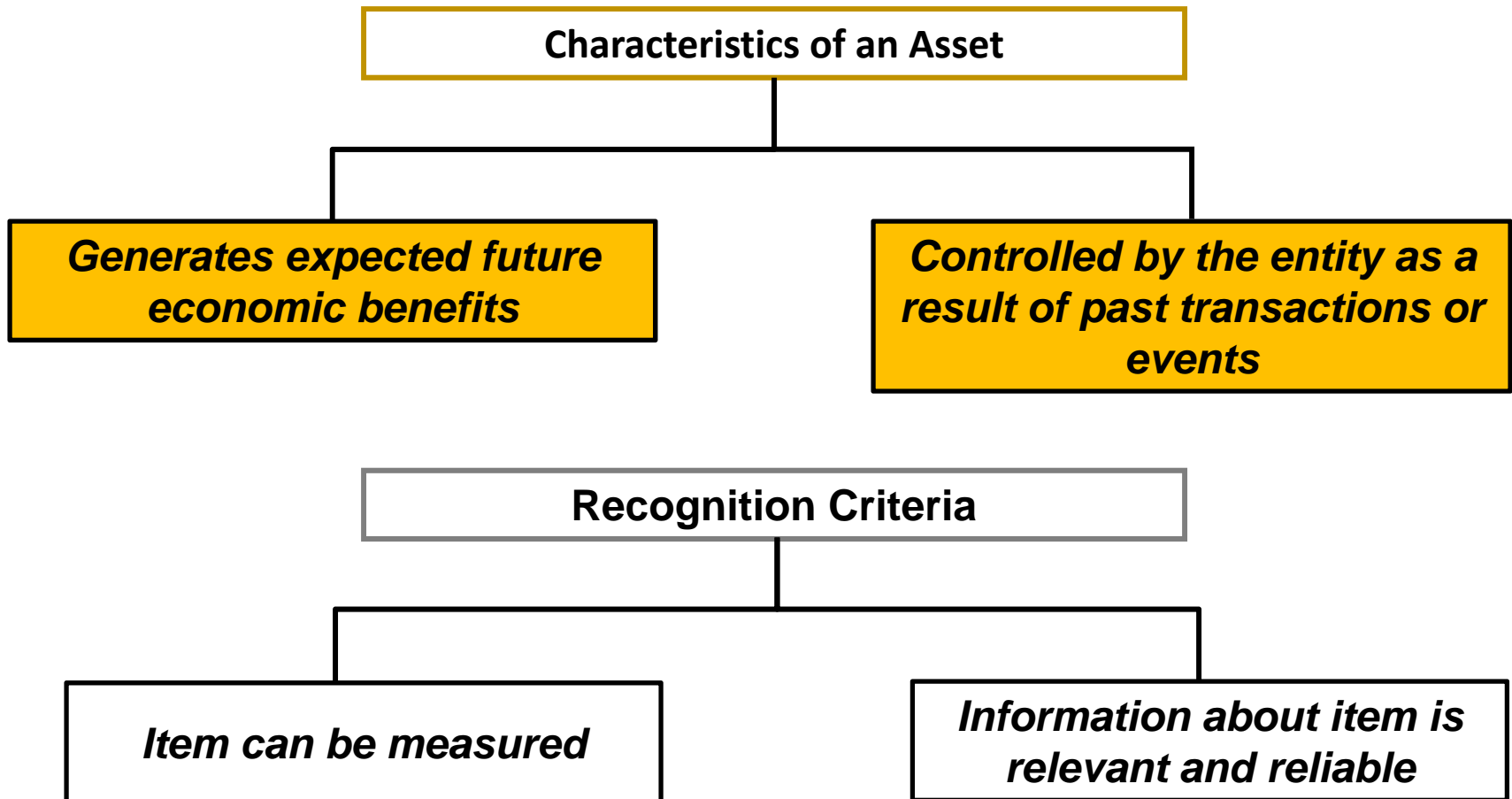
B/S Date	Asset	Liability
Mar. 31, 2011	\$0	\$0
June 30, 2011	\$0	\$0
Sept. 30, 2011	\$0	\$160,000
Dec. 31, 2011	\$0	\$1,020,000

10,000 tons * \$16

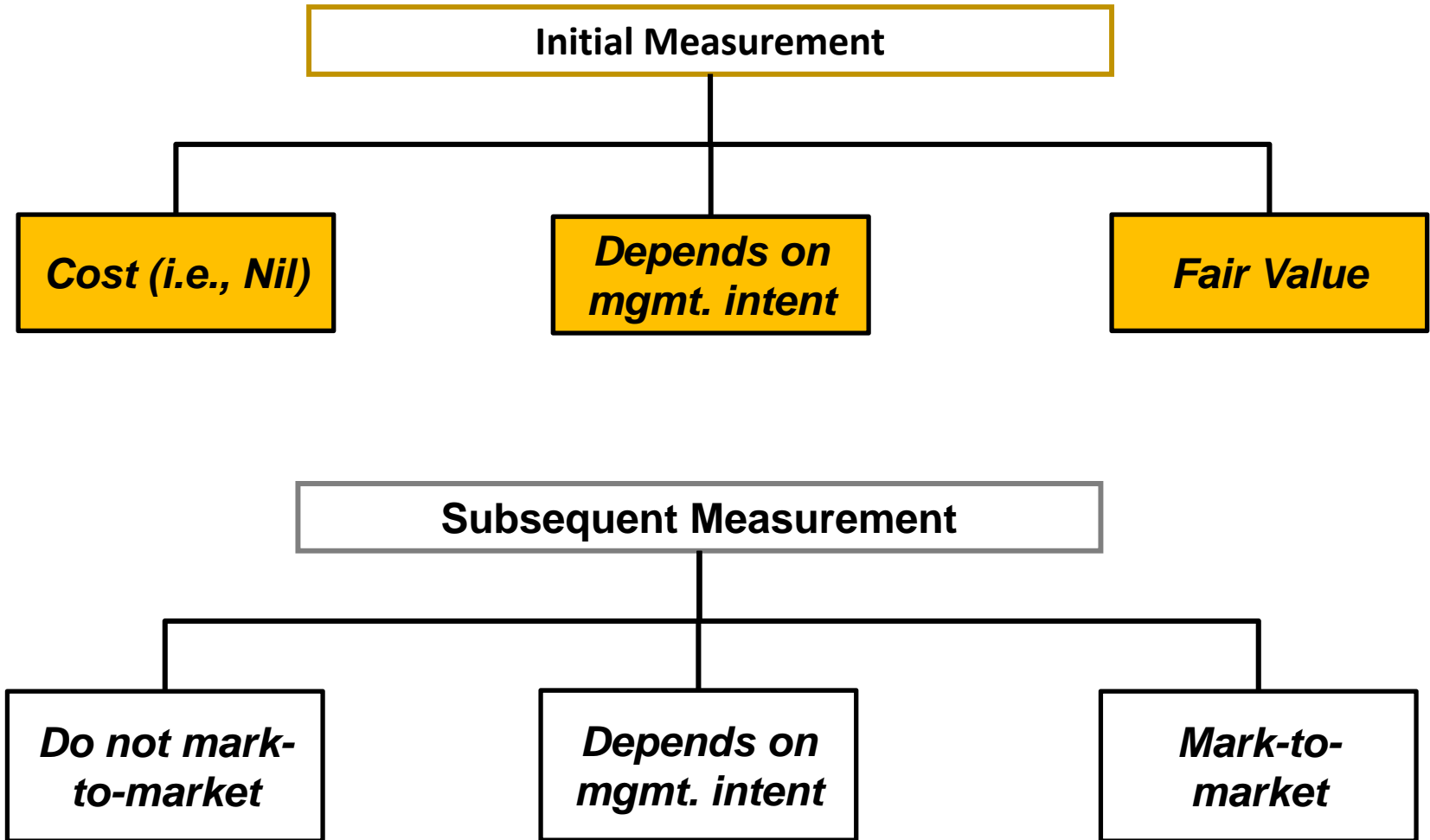
60,000 tons * \$17

I/S Date	QTD Income (Loss)	YTD Income (Loss)
Mar. 31, 2011	\$0	\$0
June 30, 2011	\$0	\$0
Sept. 30, 2011	(\$160,000)	(\$160,000)
Dec. 31, 2011	(\$860,000)	(\$1,020,000)

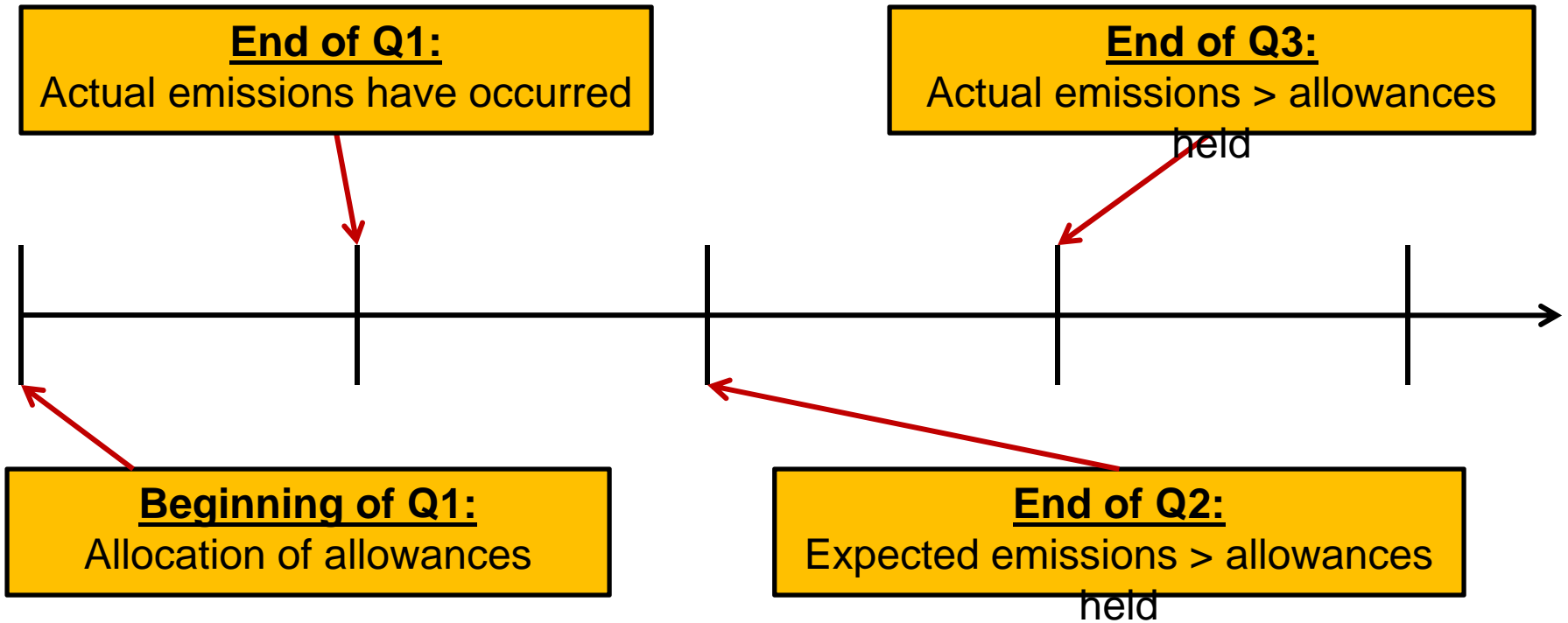
Q1a: Are the allocated allowances assets?



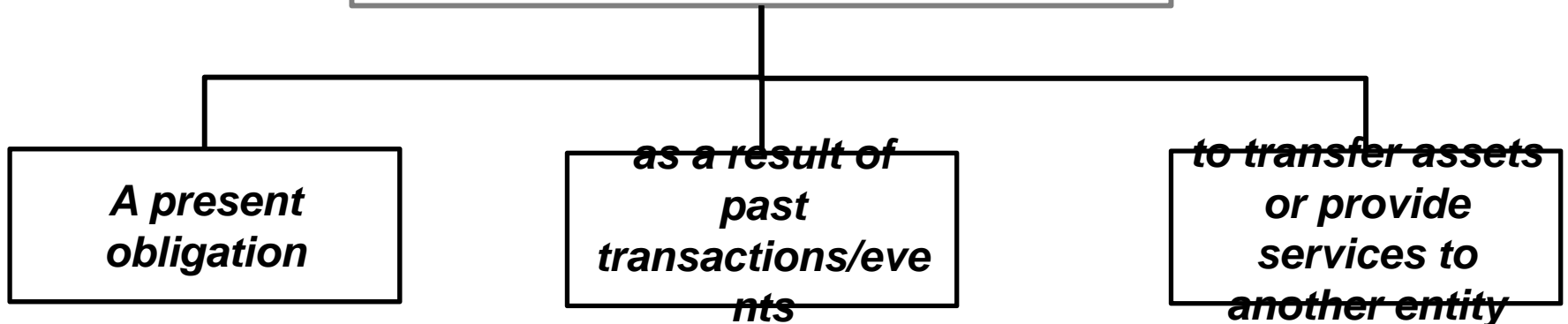
Q1b: Initial and Subsequent Measurement of Asset?



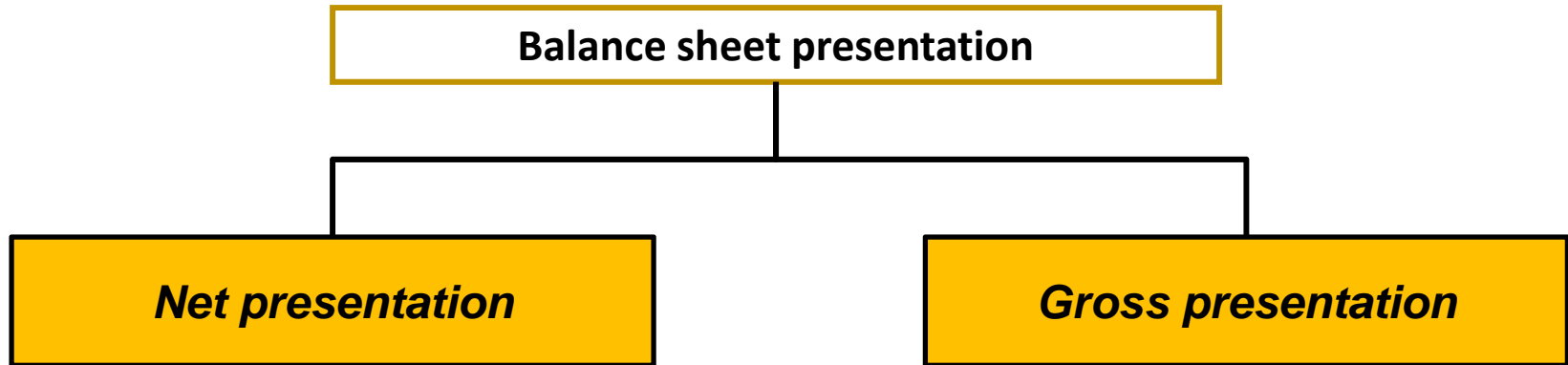
Q2: When to recognize (and how to measure) a liability?



Characteristics of a Liability



Q3: Offset asset with liability?



- **General guidance on offsetting (IFRS and U.S. GAAP)** – Offset if the following conditions are met:
 1. **The entity has a legally enforceable right to set off the recognized amounts;**
 2. **The entity intends to settle on a net basis (or to realize the asset and settle the liability simultaneously); and**
 3. **Each of the two parties owes the other determinable amounts.**

**Should BC
recognize the
baseline as an
asset on 1/1/11?**

Accounting for a Baseline-and-Credit Program

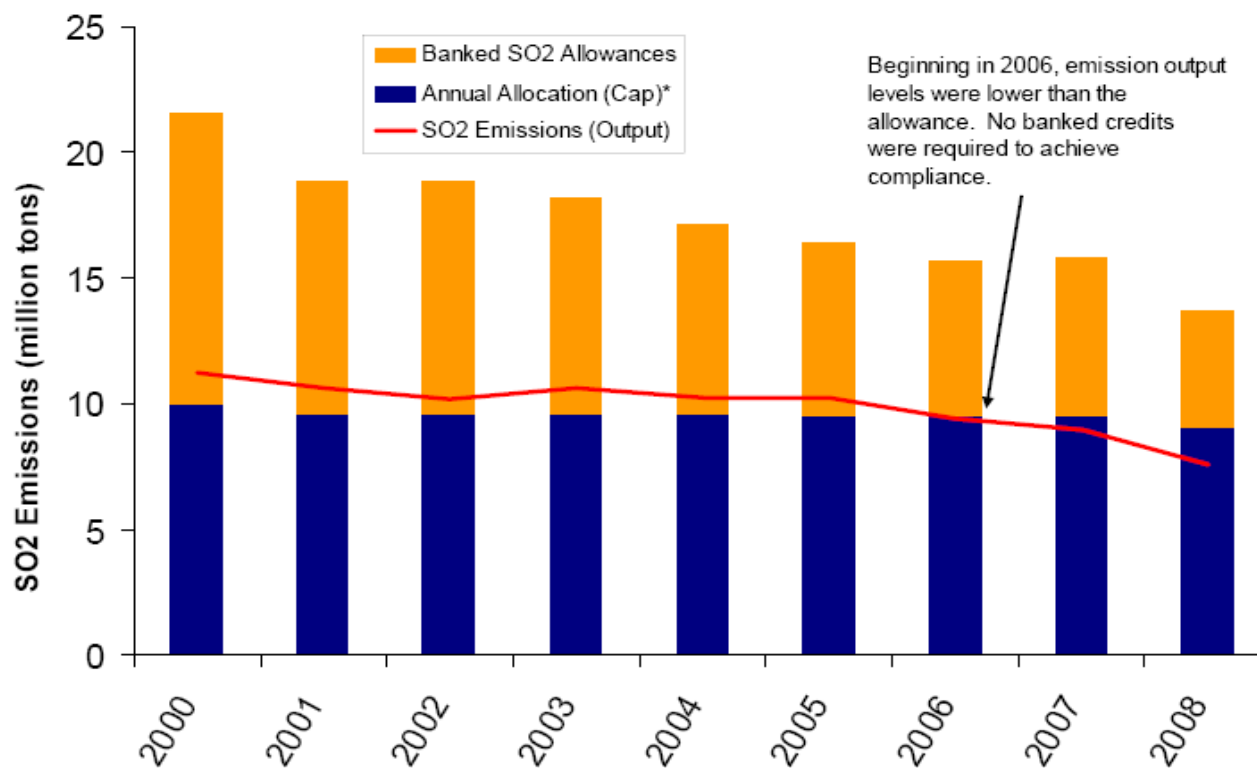
Beginning January 1, 2011, BC Company is subject to the regulation of its CO₂ emissions through a mandatory baseline-and-credit program. On that date, BC receives, free of charge, a baseline that allows the Company to emit 50,000 tons CO₂ during 2011.

Under the terms of the program, BC cannot trade the baseline. However, if BC's emissions are below the baseline, then the entity will receive credits that it can sell and/or bank for future use. If BC's emissions are above the baseline, then it will need to purchase credits to offset the excess emissions.

The following table displays BC's actual and forecasted emissions during 2011:

Period	Actual year-to-date CO₂ emissions (in tons)	Estimated CO₂ emissions for the year (in tons)
Beginning of quarter 1	N/A	35,000
End of quarter 1	5,000	35,000
End of quarter 2	15,000	30,000
End of quarter 3	23,000	30,000
End of quarter 4	32,000	32,000

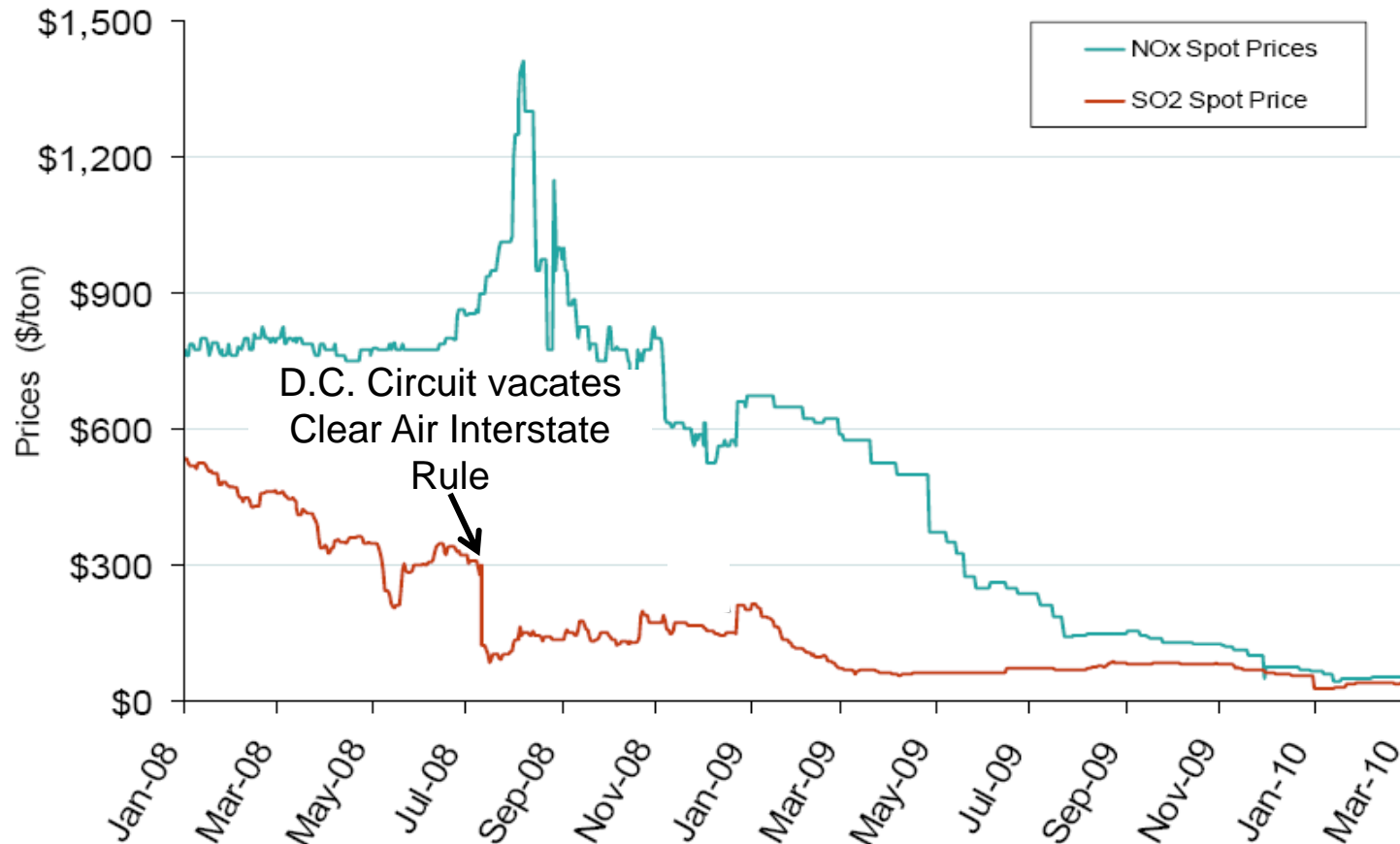
SO2 Allowances Available for Compliance and SO2 Emission Output under Cap-and-Trade



Source: EPA

* See overview on following slide.

SO₂ Allowance Spot Prices and NOx Seasonal Allowance Spot Prices



Source: Derived from *Bloomberg*.

* Earliest year an allowance may be applied against emissions.

Updated March 5, 2010

The 2010 SO₂ Allowance Auction took place on March 23, 2010.

<i>Spot Auction Results</i>			
Allowances	Number of Bids	Number of Bidders	Bid Price
Bid For: 485,013	Successful: 14	Successful: 8	Highest: \$300.00
Sold: 125,000	Unsuccessful: 44	Unsuccessful: 6	Clearing: \$36.20
	Total: 58	Total: 14	Weighted Average of Winning Bids: \$37.71

<i>7 Year Advance Auction Results</i>			
Allowances	Number of Bids	Number of Bidders	Bid Price
Bid For: 750,022	Successful: 11	Successful: 6	Highest: \$150.00
Sold: 125,000	Unsuccessful: 13	Unsuccessful: 5	Clearing: \$1.69
	Total: 24	Total: 11	Weighted Average of Winning Bids: \$2.07

What is the status of the project?

- IASB has tentatively decided that all allowances shall be recognized as assets and measured initially at fair value
- FASB has not yet reached any conclusions on recognition and measurement of allowances
- Other accounting issues continue to be debated by both Boards
- Target publication for ED : End of 2010

Want more information?

- FASB and IASB project pages

http://www.fasb.org/emissions_trading_schemes.shtml

<http://www.iasb.org/Current+Projects/IASB+Projects/Emission+Trading+Schemes/Emission+Trading+Schemes.htm>

- Research paper – “The Value Relevance of Greenhouse Gas Emissions Allowances: An Exploratory Study in the Related United States SO₂ Market”

- Derek M. Johnston, Stephan E. Sefcik, and Naomi S. Soderstrom

- European Accounting Review, Vol. 17, No. 4, 747-764, 2008

- Deloitte paper

- ***“Carbon accounting challenges: Are you ready?”***

http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/Energy_us_er/us_er_NewChallengesinCarbonAccounting_1009.pdf

Questions or comments?

The views expressed in this presentation are those of the presenter. Official positions of the FASB and IASB on accounting matters are determined only after extensive due process and deliberation.

