



MEDIA RELEASE

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ASX Welcomes Government Commitment to Emissions Trading Scheme

The Australian Securities Exchange (ASX) welcomes the Federal Government's commitment to introduce an Emissions Trading Scheme (ETS).

The introduction of an ETS will provide business with certainty regarding the cost of emitting greenhouse gases. It will also enable industry to reduce emission levels at the lowest cost to the Australian economy.

Robert Elstone, ASX Managing Director and CEO, said: "Australia's highly developed financial markets are well placed to provide the necessary infrastructure to facilitate both exchange-traded and over-the-counter markets support for an ETS."

Key to the success of the proposed ETS will be the introduction of a futures market for emission permits and any fungible carbon-related products. A futures market will generate the short and long-term price signals and risk mitigation required to underpin investment certainty.

ASX's now wholly owned subsidiary, the Sydney Futures Exchange, first evaluated the infrastructure required to meet the needs of an emissions trading system in 1999-2000. Coupled with this experience is ASX's experience in operating successful electricity derivatives contracts. This will enable ASX to utilise existing market infrastructure and distribution mechanisms for a core group of natural users of emissions derivatives.

"Once sufficient detail of the ETS is known, ASX will be in a position to facilitate emissions trading at the earliest opportunity", Mr Elstone said.

ASX anticipates that it will be able to introduce a futures market for emissions prior to the issuance of emission permits in order to help industry participants manage risk.

The introduction of a futures market in emission permits will:

- Reduce transactions costs for participants in the market (the cost of buyers and sellers finding each other);
- Provide forward price discovery and facilitate the transfer of risk (underpinning investment decision making); and
- Minimise the potential for counter-party and settlement default (assisting the market's credibility and providing security for market participants).

Many likely participants in the forthcoming ETS are already users of ASX infrastructure, including trading and investment banks, large corporations, electricity generators and retailers, mining and transport companies, and primary producers.

The ASX is appointing its own working group to facilitate industry input into the design of an appropriate futures market and to provide advice to the Federal Government on the design aspects of an ETS required to facilitate an efficient secondary market for emission permits.

A short briefing note following this media release presents more background information, including:

- The role of forward (or futures) markets in emission trading schemes;
- A brief history of ASX's involvement in environmental markets; and
- Important lessons to highlight from the European Union Emissions Trading Scheme.

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Briefing Note on the Role of ASX in Australia's Emissions Trading Scheme

This briefing note provides context to the role that the Australian Securities Exchange (ASX) will fulfil in the proposed emissions trading scheme (ETS) for Australia, including:

- The role of forward (or futures) markets in emission trading schemes;
- A brief history of ASX's involvement in environmental markets; and
- Important lessons to highlight from the European Union Emissions Trading Scheme.

The Role of Forward Markets

Forward and secondary markets exist to facilitate risk transfer and price discovery, both of which enable market participants to manage the risks inherent within their businesses and compete with each other at the lowest possible cost to consumers.

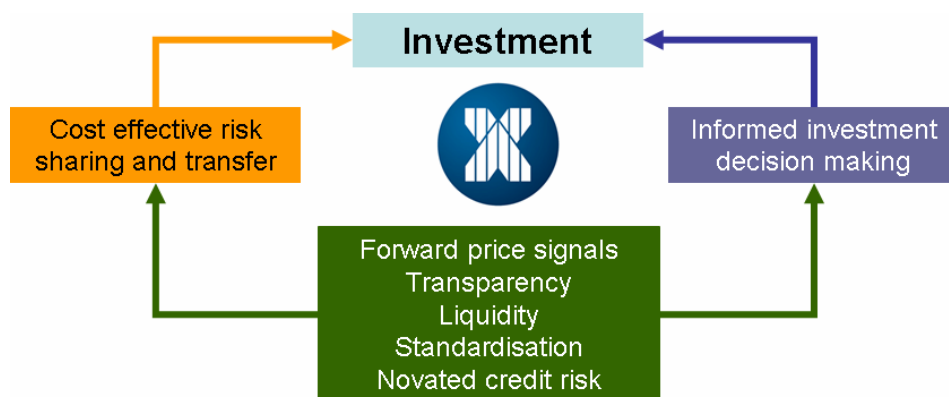
Forward markets take two types of institutional form: (1) Over the counter markets (OTC), which typically are bilateral and confidential; and (2) Exchange-traded markets, which are multilateral and transparent.

Forward markets are essential to 'informed' investment decision-making, be it in the form of primary market (asset formation) or secondary market (asset allocation) activity. In the absence of accurate forward prices, either form of investment activity can be inefficient. Informed investment decision-making uses forward prices to determine the economics of investment. The existence of forward market price discovery underpins capital formation and asset allocation through risk reduction and by providing attractive returns for investors.

A significant hurdle to investment is the inability for investors to hedge their risks and obtain certainty on their investment returns. In the absence of transparent forward prices underpinning efficient markets, investors will require far higher rates of return to protect themselves from adverse market events. Often these hurdles prove to be too high for projects to be economically justifiable, with the consequence being that the investment is not made. Exchanges, such as ASX, play a critical role in reducing the cost of capital that encourages investment, capital management and portfolio efficiency activities.

Exchanges facilitate informed investment decision-making by providing:

- Transparent forward prices that assist the valuing of future available supply and demand. This price signal stimulates a response from the market to increase future supply to meet the expected shortfall, or to reduce consumption to meet the lack of future supply;
- A forward price curve that enables parties making long-term investments to hedge the financial risks associated with such investment;
- Liquidity to enable parties to transfer or share risk at the lowest possible cost across the economy; and
- Credit risk novation where security of contracts entered into is guaranteed by a central counterparty clearing corporation.



ASX Involvement in Environmental Markets

In 1999-2000 the Sydney Futures Exchange (SFE), now a wholly owned subsidiary of ASX, invested substantial resources evaluating the opportunity to provide market infrastructure to meet the needs of a voluntary carbon trading system. The SFE did not proceed with implementation of its market at that time for several reasons, including the lack of certainty regarding the future value of carbon credits in any future emissions trading system were one to be mandated by government¹. At this time SFE concluded that it would require the certainty of a mandated ETS before it could introduce a futures market for emissions.

In the interim, the Australian Government and various State Governments have introduced a range of measures that seeking to address the issue of global warming caused by greenhouse gas emissions. These include the establishment of the:

- Renewable Energy Certificate (REC) Scheme (albeit that the Scheme is primarily an industry development initiative);
- NSW Greenhouse Abatement Certificate (NGAC) Scheme; and
- Queensland Gas Energy Certificate (GEC) Scheme.

These schemes are based on the allocation of a liability (placed on electricity consumers) and the identification of 'eligible activities' which permit the creation of certificates. These certificates are then purchased by the liable party to acquit their liability.

Although designed to meet different objectives, this multiplicity of schemes led the COAG Parer Review to recommend that all the schemes be rolled into a single national emissions trading scheme.

In parallel to monitoring international developments, a domestic focus of ASX has been to develop and grow its electricity futures market and over-the-counter (OTC) trade registration mechanisms for participants in the National Electricity Market (NEM). ASX expects that emissions trading will leverage its connectivity to the energy sector established by the success of the existing electricity market.

ASX is also planning to introduce futures trading and over-the-counter (OTC) trade registration mechanisms for the Australian coal export market. With this sector being a major contributor to global emissions, such a market would enable participants to manage their exposure to counter-party exposures and coal prices at the lowest cost.

The ASX is appointing its own working group to facilitate industry input into the design of an appropriate futures market and to provide advice to the Federal Government on the design aspects of an ETS required to facilitate an efficient secondary market for emission permits.

¹ ASX is not proposing to introduce a market for voluntary emissions reductions or Kyoto-based instruments not recognised by any mandatory scheme developed by the Australian Government.

Important Lessons to Highlight from the European Union Emissions Trading Scheme

The European Union (EU) Emissions Trading Scheme (ETS) uses a market-based mechanism (a 'cap and trade' approach) to deliver its environmental objectives. The attached case study of the European Climate Exchange (ECX) provides some insight to the requirement for financial market infrastructure to underpin the success of any emissions trading scheme in Australia.

Important lessons to highlight from the EU ETS in the context of an ETS in Australia are:

1. Maximise the use of existing financial market infrastructure.

The European Climate Exchange (a related entity of the Chicago Climate Exchange) did not develop new infrastructure to facilitate the trading of futures contracts based on EU emission allowances. Instead, the ECX leveraged the existing services and infrastructure of the Intercontinental Exchange (ICE) and LCH.Clearnet².

ASX already operates a futures market and OTC clearing services for interest rate, equity, commodity and energy products. ASX Austraclear also provides payment services for Australia's financial, electricity and existing environmental markets. New financial market infrastructure is not required to underpin an ETS.

2. Do not impede the development of derivative markets.

Approximately 95% of the total volume in the European carbon market has been in the form of derivative trades (forwards, futures and options) with the remaining in spot trades. Similar volumetric relationships exist between derivative and spot markets generally. Derivatives markets provide the lowest cost and most efficient market to manage price risk.

As per the experience of the EU ETS, the majority of trading in an Australian ETS is likely to occur in the futures market as participants seek to manage their risk at the lowest cost.

3. Ensure open and efficient access to the registry.

The proliferation of different registries for emission allowances in the EU ETS has created significant additional complexity, cost and delay to the inception and liquidity of the spot market, which in turn has impacted on the forward market.

The development of an accessible and efficient registry service is key to the success of an ETS. Several lessons have been learnt from the introduction of stand-alone registries for the Renewable Energy Certificate Scheme, NSW Greenhouse Gas Abatement Certificate Scheme and the Queensland Gas Energy Certificate Scheme.

The introduction of a robust futures market and/ or the clearing of OTC derivatives at ASX will be contingent upon the introduction of legislation to underpin a national ETS and its registry. Sufficient detail of the registry to underpin a delivery mechanism will also be required before any forward contract can be traded.

4. The existence of a critical mass of participants.

The number participants involved in the EU ETS ensures that a sufficient level of liquidity exists in key forward and spot markets. This is critical as it reduces the overall cost of transferring risk.

² ICE operates a leading electronic marketplace for trading both futures and OTC energy contracts. ICE conducts its futures markets through its regulated London-based subsidiary, ICE Futures, Europe's leading energy exchange. LCH.Clearnet is the leading independent provider of Central Counter Party (CCP) clearing services in Europe, serving major international exchanges and platforms, equity markets, exchange-traded derivatives markets, energy markets, the inter-bank interest rate swaps market and the majority of the Euro-denominated and sterling bond and repo markets.

To date, ASX has not developed a futures market and/ or clearing service for OTC derivatives based on the Renewable Energy Certificate Scheme, NSW Greenhouse Gas Abatement Certificate Scheme or the Queensland Gas Energy Certificate Scheme due to their lack of critical mass.

Subject to how the existing State based schemes feature in a national ETS, the ASX may be able to provide a futures market and/ or clearing service for OTC derivatives on any relevant State based scheme.

5. Ensure strong levels of transparency in market information and communication.

The nature of a mandatory ETS implies the imposition of centrally planned objectives via the artificial fixing of a carbon constraint. Random adjustments, poor information dissemination and manipulation of this constraint can cause major disruption in the market and damage investor confidence in the overall scheme.

An example of such a disruption has occurred in the EU ETS. In 2006 the price of allowances for the 2007 'compliance period' collapsed from over 30 euro per tonne to less than 10 euro per tonne. The price collapse followed reports from five countries that 2005 actual emissions were lower than expected. As the largest centrally planned market of its type in the world, the EU ETS is not, however, an example of market failure. Price collapses are common even in markets with no centrally planned objective. In the case of the EU ETS, the uncertainties and price volatility have primarily been the result of inadequate robustness in information transparency and allowance allocation decision-making. Given the high level of government responsibility in these areas, a strong appreciation of the impact by government on the market is critical.

Attachment – A Case Study of the European Union Emissions Trading Scheme

What is the EU ETS?

The European Union (EU) Emissions Trading Scheme (ETS) commenced on 1 January 2005, creating the world's first multi-country emissions trading system and the largest scheme implemented so far. The EU ETS runs in two phases: 2005-2007 (Phase I) and 2008-2012 (Phase II, coinciding with the first commitment period of the Kyoto Protocol).

The 'cap-and-trade' approach being used in the EU ETS sets an overall cap or maximum amount of emissions per compliance period. Companies are given allowances which represent their target or 'cap' for a compliance period. At the end of the period they must surrender sufficient allowances to reconcile against their total emissions during the period. If this is below their cap then they have allowances to sell; if not, they must purchase allowances from companies that have exceeded their emissions reductions targets. Each allowance permits the holder to emit one tonne of CO₂. If an operator does not hold sufficient allowances to meet its total emissions at the compliance date, a penalty of €40 (rising to €100 in the second phase) per excess tonne will apply.

The EU ETS presents both opportunities and challenges for those covered by the scheme. Low-cost, liquid and regulated exchange-traded products offered by the European Climate Exchange (ECX) help companies meet their obligations in a carbon constrained environment.

National Registries

Under the EU ETS Registries Regulation, each Member State establishes a national registry that links to the others and to the Community Independent Transaction Log (CITL). Each national registry connects to the backbone which in turn ensures a secure, compatible and smooth integration of all systems under one European umbrella. The sum of all registries together with the CITL operate as the Registries System.

Allowances are issued to registry accounts established for each affected facility. Registry accounts can be established by any person or business.

Policy & Regulatory Issues

Like other environmental markets, the 'carbon market' is created through political decisions and has to be framed in national law. Hence, and similar to other commodity markets such as the oil, gas and power markets, decisions concerning framework conditions and operating guidelines could potentially have a key impact on market and price developments. Anyone aiming to analyse and forecast market and price developments therefore needs to understand the role and potential impact of policy choices. For the carbon market in particular, this means that market participants need to monitor and assess issues such as the National Allocation Plans (NAPs), the 'linking' directive, banking, as well as the future status of the Kyoto Protocol.

EU reduction Targets and National Allocation Plans

Once the NAPs are submitted to Brussels, it is the role of the European Commission (EC) as watchdog to vet them and make sure the carbon market is set on a level playing field. The EC has warned governments that they must create scarcity (establish short positions) for the market to work.

In order to illustrate how reduction targets set by the National Allocation Plans may affect the required reduction targets and relative positions (long or short), one may compare historical emissions data for EU Member States with the targets set for each country under the Kyoto Protocol. Under the Kyoto Protocol, the EU as a whole committed itself to reduce greenhouse gas emissions by 8% compared to 1990 levels. This target was then distributed between Member States according to the so-called Burden Sharing Agreement (BSA), where different targets were set for each of the different Member States (EU15).

Role of Fundamentals

Market fundamentals, similar to other markets, concern supply and demand. The supply of allowances - the right to emit one tonne of CO₂ - will be fixed by governments through the National Allocation Plans (NAPs). In brief, governments in current and new Member States will first determine the total quantity of allowances to be allocated (the 'cap'), and then allocate the allowances to installations in energy intensive industries (e.g., production of iron and steel, building materials, pulp and paper) and the power and heat generation sectors. The demand for allowances is a function of the level of CO₂ produced by the companies and installations covered by the scheme.

Estimating and forecasting CO₂ production

In general, CO₂ production depends on a number of factors, such as weather (especially temperature), fuel prices and economic growth. Among these factors, weather has varied effects; firstly, cold weather increases energy consumption and so CO₂ emissions through power and heat generation. Secondly, rainfall and wind speeds will affect the share of power generated by non-emitting sources and thus emission levels. This is of course particularly important for countries and regions relying on hydro- and/or wind power to any significant extent.

The Role of Derivatives Markets

Futures and options markets are derivative markets (though certainly not the only types of derivative products), which means that they exist in relation to spot markets, which are the underlying primary markets in which actual physical commodities are bought and sold. Because futures and options contracts allow for the delivery of the underlying commodity upon expiration, there is a strong tendency for spot, futures and option prices to move in the same direction and react to the same economic factors.

Where do they develop? - Derivatives markets tend to develop in large, competitive spot markets that have volatile prices. In the case of the EU ETS however, the forward and futures markets have developed faster than the spot market.

Approximately 95% of the total volume in the European carbon market are seen in derivative trades (forwards, futures and options) with the remaining in spot trades. This can partly be explained by the initial delay of national registries and final allocations in many of the EU Member States which prevented the execution of instant delivery for spot contracts.

What does trading derivatives involve? - Derivatives involve the trading of obligations (futures) and rights (options) based on an underlying product, without necessarily directly transferring that underlying product. The most familiar derivative instruments are exchange-traded futures and options based on an underlying product. On the European Climate Exchange, the underlying unit of trading are the EU allowances (EUAs) which are granted to companies under the EU Emissions Trading Scheme (EU ETS).

ECX Derivatives

The ECX CFI futures and options contracts provide an example of standardised terms of trade. The standardized nature of futures and options markets makes them inexpensive and reliable to use for those with a commercial interest in the EU ETS. Because futures and options contracts attract industrials, utilities and financials of various nature, futures and options of a commodity often develop into a deep and liquid market. Market depth and liquidity means trades can be executed quickly without displacing prices.

In sum, derivatives are traded either on exchanges (where trading is public, multilateral and closely regulated by governments and the exchanges themselves), or between two or more parties in over-the-counter markets (where trading is non-public and largely outside government regulation).

Two-fold Role of Derivatives

Derivative markets have two central roles: risk transfer and price discovery. For market participants, the primary purposes of derivatives markets are:

- To transfer the risk of adverse changes in commodity prices from those who wish to reduce risk to those willing to accept it. Commercial firms (that produce or use the commodity) shift part of the risk of price change to proprietary traders, who willingly assume that risk for the opportunity to earn a profit on their venture capital.
- The revelation of price information that reflects a multitude of market opinions. These are the views of the various traders involved in the markets. Because futures and option markets funnel large quantities of bids and offers that result in publicly disseminated transaction prices, futures and options markets often become the primary source of price discovery for the related commodities.

Derivatives and the EU ETS

Derivative markets play an important role in the EU ETS. By allowing market participants to reduce exposure to price risk, buyers and sellers can better plan their businesses. By revealing the market's summary of the value of the underlying product, derivative markets inform those with a major stake in those commodities and financial instruments. The availability of these markets has provided the means to allow greater risk to be absorbed, thus facilitating growth and efficiency in each of the associated industries. Market users have improved predictability of future business conditions, which allows for expansion of lending and commodity production and facilitates borrowing for business growth. These results can lead to reductions in prices and interest rates paid by consumers.

Source: www.europeanclimateexchange.com

Prices and Volumes at ECX Since Inception

