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Secretariat to the Task Group on Emissions Trading
C/- Department of the Prime Minister and Cabinet
PO Box 6500
CANBERRA ACT 2600

By email: secretariat@emissionstrading.pmc.gov.au

Dear Secretariat,

Re: ASX Submission to the Task Group on Emissions Trading

The Australian Securities Exchange (ASX) Limited welcomes the opportunity to respond to the Task Group on Emissions Trading Issues Paper.

To help the Task Group identify directions and principles for future efforts in its report to the Prime Minister, ASX has limited its response to only those areas in the Issues Paper where ASX has relevant expertise and experience.

If an emissions trading scheme were to be implemented at some future date, Australia's highly developed financial markets are well placed to provide the necessary market infrastructure to facilitate informed investment decision making at least cost and help preserve the major competitive advantages that Australia enjoys through the possession of large reserves of fossil fuels and uranium.

ASX is well placed to extend its existing infrastructure to assist with the development of an emissions trading market, including the provision of contemporary trading, clearing, settlement and registry infrastructure. Participants of any proposed national emissions trading scheme are already users of ASX infrastructure, including trading and investment banks, large corporations, electricity generators and retailers, mining and transport companies, primary producers and exporters.

ASX executives have already attended a consultation of the Task Group on Tuesday, 6 March 2007 and would welcome any opportunity to discuss the content of this response in more detail.

Yours sincerely

ASX Submission to Task Group on Emissions Trading

In making this submission to the Task Group on Emissions Trading, ASX has limited its response to those areas where it has relevant expertise and experience.

Context Setting

3. To what extent is Australian industry currently factoring a carbon price into investment decisions? How can longer term certainty be improved?

Whilst many companies are now factoring an arbitrary 'carbon price' or 'carbon tax' into their investment decision making, the value placed on the cost of future emissions remains highly uncertain with little price transparency or underlying market activity.

Uncertainty exists in investment decision making due principally to the lack of clarity around whether a carbon constraint in whatever form it takes, will be introduced. As any carbon constraint is artificial the extent of the constraint will drive supply, demand and thus cost, opportunity and risk. Failure to clarify the extent of the constraint simply increases future cost and tension for parties affected by the constraint. This has a commensurate negative impact on investment.

Once the extent of the carbon constraint is known, forward markets will develop to stimulate investment and assist parties manage associated risks and costs in the most effective manner.

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.

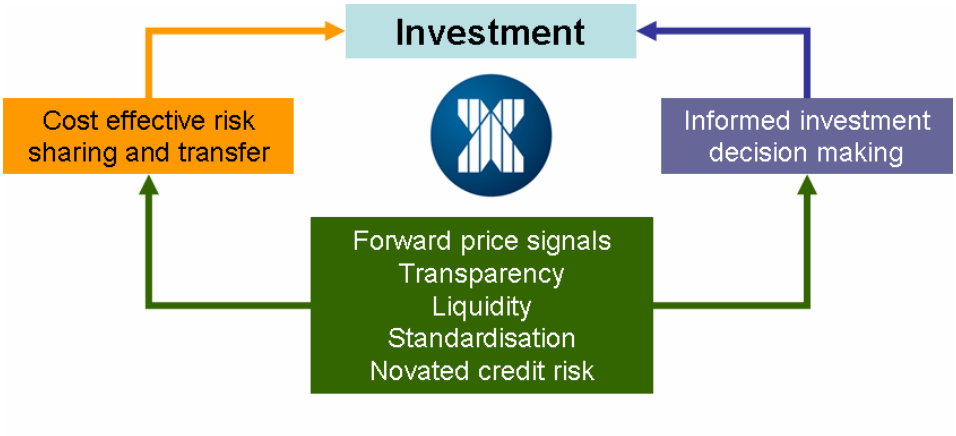
Forward markets take only two types of institutional form – 1. Over the counter markets (OTC), which typically are bilateral and confidential, and 2. Exchange traded markets, which are multilateral and transparent.

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 providing attractive returns for investors.

A significant hurdle to investment is the inability for investors to hedge their risks and in so doing provide a more certain return on their investment. 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 therefore play a critical role in reducing the cost of capital that encourages investment, capital management and portfolio efficiency activities.

An exchange (such as the ASX) facilitates 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 enabling parties to transfer or share risk at the lowest possible cost across the economy;
- Credit risk novation where security of contracts entered into is guaranteed by a central counterparty clearing corporation.



A Workable Global Emissions Trading Scheme

1. What would constitute a workable global emissions trading scheme from Australia's perspective?

A workable global emissions trading scheme is defined as a scheme which enables Australia to achieve the desired reduction in emissions at the least overall cost to its economy and maintain our competitive advantage through the possession of large reserves of fossil fuels and uranium. A workable global trading scheme could be a single market encompassing many national jurisdictions (as is the case with the EU Emissions Trading Scheme) or a series of national schemes in which recognition is afforded to the scheme arrangements under which either allowances and/ or offsets are created, accredited, verified and monitored.

Comments on the key design elements of a workable global emissions trading scheme, including the transparency of registry information and financial market support structures are documented in the remainder of this submission.

2. How have existing emissions trading schemes delivered against key desirable design elements? What problems have emerged?

The European Union (EU) Emissions Trading Scheme (ETS) uses a market based mechanism (a 'cap and trade' approach) to deliver its environmental objectives. The following 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.

What is the EU ETS?

The EU Emissions Trading Scheme (ETS) commenced on 1 January 2005, creating the world's first multi-country emissions trading system and the largest scheme ever implemented. 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 which 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

Important lessons to highlight from the EU ETS in the context of a possible emissions trading scheme in Australia are:

1. Maximise the use of existing financial market infrastructure (including registries);

   The European Climate Exchange (a subsidiary 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.Clearnet[1].

   Note that the same approach to leveraging financial market infrastructure was not followed in the development of registries. 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 new registries to service an emissions trading market in Australia unnecessary when existing registry services, such as those provided by ASX Austraclear, already exist and interface with trading, clearing and settlement systems used by participants in the financial markets. From the ASX's perspective, the development of stand-alone registries for the Renewable Energy Certificate Scheme, NSW Greenhouse Gas Abatement Certificate Scheme and the Queensland Gas Energy Certificate Scheme has negatively impacted upon the development of the spot and forward markets for these instruments.

[1] 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 group 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.

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 exists between derivative and spot markets generally. Derivatives markets provide the lowest cost and most efficient market to manage price risk. As a result, price discovery in the derivatives market typically leads price discovery in the spot market and this attracts more trades etc.

3. Ensure the existence of a critical mass of participants.

   The number participants involved in the EU Emissions Trading Scheme ensures that a minimum level of liquidity exists in key forward and spot markets. This is critical as it reduces the overall cost of transferring risk. To date the ASX has not developed a futures and/ or clearing service for over-the-counter (OTC) derivatives based on the Renewable Energy Certificate Scheme, NSW Greenhouse Gas Abatement Certificate Scheme and the Queensland Gas Energy Certificate Scheme due to the lack of critical mass.

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

   The nature of a mandatory emissions trading scheme 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 April 2006 the price of allowances collapsed from over 30 euro per tonne to almost 10. The price collapse followed reports from 5 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.

Domestic Action to Prepare for a Workable Global Scheme

1. How is Australia positioned to respond to or influence any emerging workable global scheme?

Australia's highly developed financial markets are already well placed to provide the necessary market infrastructure to respond to the any emerging global or series of national emissions trading schemes at least cost. The role of the financial sector in emissions trading is primarily to:

- reduce transactions costs (the cost of buyers and sellers finding each other);
- facilitate price discovery and the transfer of risk (underpinning investment decision making); and,
- minimise the prospect for counter-party and settlement default (this assists in the market's credibility and security for market participants).

Of note the participants of any proposed national emissions trading scheme are already users of ASX infrastructure, including trading and investment banks, large corporations, electricity generators and retailers, mining and transport companies, primary producers and exporters.

3. What are the key design features (such as permit allocation, offsets and coverage) of a workable domestic scheme?

The following table highlights several key design features of a workable domestic emissions trading scheme. The role of government and the private sector is clearly delineated.

International and/ or domestic legal provisions	The principles, modalities, rules and guidelines for emissions trading need to be clearly defined and agreed. The necessary supporting legislation will be required to provide the legal framework within which business and government can operate with certainty.
Permit allocation	The way in which government allocates emissions trading permits to individual entities in the economy is one of the most significant issues to be dealt with in the technical design of an emissions trading system because of the significant wealth transfer, equity and competitiveness implications. The challenging, but necessary decision will be to determine the number of participants involved together with the most appropriate methods (e.g. auction/grandfathered) of allocation and their proportions.
Open and transparent markets	The involvement of an exchange, such as ASX, and the development of over-the-counter (OTC) markets is critical to the success of an emission trading scheme. An open and transparent market will maximise liquidity, provide price transparency and facilitate informed investment in greenhouse abatement.
Monitoring, reporting and verification	Independent random verification of reported emissions would be needed to ensure the integrity of the market.
Strong enforcement and compliance regime	This can be achieved through rigorous monitoring, reporting and independent verification as well as having in placed the appropriate penalties/incentives for ensuring compliance. If the penalties/incentives are sufficient enough, Parties or entities will be likely to report accurate emission levels and hold sufficient permits to offset against their emissions.
Registry systems to record ownership details	A registry system is needed to record ownership of certificates as unique serialised units in electronic form. Certificate holding "accounts" would be established for every owner and upon a change in ownership of a certificate, one account would be credited and the other debited (i.e. a simple double entry bookkeeping). The ASX subsidiary, Austraclear, has over A$700 billion worth of securities (i.e. certificates in electronic form) in safe custody within its registry systems.
Centralised Auction (Primary), Secondary and Derivative Markets	Auction (primary), secondary and derivative markets would facilitate price discovery and risk transfer that will enable emitters to meet their obligations under an emissions trading scheme at least cost. ASX could facilitate markets for emission permits, carbon credits and/ or renewable energy certificates in addition to its existing and diverse range of markets for interest rate, equity, soft commodity and electricity products.
Central Counter-Party (CCP) Clearing Services	Counter party credit risk would be effectively eliminated with the use of a Central Counter-Party (CCP) clearing service such as provided by Australian Clearing House or SFE Clearing Corporation. ASX provides CCP services for over $27 trillion of hedge contracts traded in Australia's financial market – including $7 billion of hedge transactions on electricity traded in the National Electricity Market (NEM).
Settlement Services	Participants to an emissions trading market will have settlement obligations. Without an appropriate settlement mechanism there exists the risk of settlement default, i.e. the buyer delivers cash but does not receive the emissions permit or vice versa. The risk of settlement default would be eliminated if a clearing house were to settle trades. Austraclear is already being used by all electricity market participants to settle the cash component of all electricity traded in the NEM and transactions in RECs and NGACs.

Responsibility of Government Existing market infrastructure provided by ASX or private sector

Appendix

ASX Involvement in Environmental Markets

In 1999-2000 the Sydney Futures Exchange, now a wholly owned subsidiary of ASX, invested substantial resources in developing infrastructure to meet the needs of a domestic emissions trading system including that of a trading platform, registry function and settlement service. The Sydney Futures Exchange did not proceed with implementation of the market at that time given the absence of an Australian Government approved emissions trading scheme underpinned by legislation.

In the interim the Australian Government and various State Governments have introduced a range of measures that seek to commence the task of addressing the issue of global warming caused by greenhouse gas emissions. This includes the establishment of:

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

These schemes have been 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 recent COAG Parer Review to recommend that all the schemes be rolled into a single national emissions trading scheme.

In the absence of a single national emissions trading scheme the ASX continues to monitor international developments, including the Chicago Climate Exchange (CCX) and European Climate Exchange (EEX) with whom an on-going dialogue is maintained. To date the ASX has not developed a futures and/ or clearing service for the above schemes due to the lack of critical mass.

In parallel to monitoring international developments, a domestic focus of ASX has been the development and growth of its electricity futures market and over-the-counter (OTC) trade registration mechanisms for participants in the National Electricity Market (NEM). Prices within the electricity futures market at the ASX are already factoring in the costs associated with the possible future introduction of a national emissions trading scheme.

The ASX is also planning to introduce futures trading and over-the-counter (OTC) trade registration mechanisms for the Australian coal market. With this sector being a major contributor to global emissions such a market would enable participants to manage their exposure to changes in price resulting from the possible introduction of a national emissions trading scheme at least cost.

In addition to the above discussions, ASX has been conceptualising its own program for the listing of environmental products on the exchange. Of particular focus is a proposal to list Environmental instruments (EIs) on the ASX as Warrants in the name of either the project arrangers/financiers, or the EI producing project itself. Exchange listed Environmental Warrants (EWs) would not be restricted to only those sourced from Australian based projects. On the contrary, under the proposal, ASX would provide an exchange facility for offshore sourced EWs.

Listing EWs and other environmental instruments such as CDMs (Clean Development Mechanisms) or emission credits on the ASX provides significant advantages to the current non-transparent market in such products. Such benefits include price transparency, regulated clearing and settlement and registry functions. Exchange listed instruments are likely to be more attractive to a broader investor base thereby stimulating investment.

Background Information on ASX Limited

As one of the world's top 10 listed exchange groups, measured by its market capitalisation, ASX group was created through the merger of the Australian Stock Exchange and the Sydney Futures Exchange.

ASX group operates under the brand Australian Securities Exchange.

The Australian Securities Exchange spans the markets for corporate control, capital formation and price discovery and functions as an operator, supervisor, central counterparty clearer and payments system facilitator.

The diverse domestic and international customer base of the Australian Securities Exchange includes issuers of a variety of listed securities, corporates, investment banks, trading banks, fund managers, hedge funds, CTAs, proprietary and retail traders.

More information on ASX can be found on our website www.asx.com.au