

# The Shell Company of Australia - Submission

## Emissions Trading Scheme

### Discussion Paper - March 2008

Shell believes that climate change is a societal responsibility with the solution to be led by government. All sectors of the economy must contribute to the solution, including our industry and our company. It is in the interests of industry to see a clear, workable climate change policy framework evolve which will deliver the desired environmental outcomes. We fundamentally believe that market-based approaches offer the business world its greatest chance of success in contributing to the solution. Market-based approaches create value for greenhouse gases through measures such as emission caps or performance standards, which offer the market flexibility in order to optimise the outcome. Therefore, we welcome this opportunity to comment on the “*Emissions Trading Scheme Discussion Paper*” (the Paper) as a way of helping to shape the market-based approach, which the Australian Government is adopting in Australia to achieve its environmental aims.

Shell would like to comment on the following aspects of the Paper:

1. The Role of ETS in Climate Change Policy
2. Coverage
3. Carbon, Capture and Storage (CCS)
4. Permit Allocation
5. Method of Permit Release
6. Additional Measures

#### **1. The Role of an ETS in Climate Change Policy**

The Paper states: “*climate change is a global issue requiring global solutions*” (page 5).

Shell recognises that addressing climate change requires an economy wide approach. Action is required in all **sectors**, including Power Generation, Industry, Transport, and Commercial and Domestic. A single instrument is unlikely to deliver the necessary breadth of change and a number of different approaches will be required to achieve the target.

**Technology** will also be key to the changes required. Certain existing technologies must be rapidly deployed and a range of new technologies will need to be brought to market. Shell favours a technology pathway model built on Discover and Develop, Demonstrate, and Deploy. These three stages are needed to allow the technology to progress down the cost curve.

To enable the necessary changes to take place and to meet the tough 2050 targets, climate change policy must focus in parallel across all the **sectors** and along the full **technology** path. The framework below illustrates the types of policy approaches within each sector and at different stages of the technology path that could be employed, however, this is not intended to be a comprehensive list.

**Table 1 Potential Climate Change Policy Framework**

<b>Sector/ Technology</b>	<b>Power Generation/ Industry</b>	<b>Transport</b>	<b>Commercial and Domestic (Buildings)</b>
<b>Discover and Develop</b>	<ul style="list-style-type: none"> <li>• Support for infrastructure (e.g. grids and pipelines)</li> </ul>	<ul style="list-style-type: none"> <li>• Support for advanced fuel development</li> </ul>	<ul style="list-style-type: none"> <li>• Urban planning decisions</li> <li>• Education and awareness</li> </ul>
<b>Demonstrate</b>	<ul style="list-style-type: none"> <li>• Fiscal support for large scale CCS demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Fiscal support for early second generation biofuel manufacture</li> <li>• Public transport infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• Encouraging radical design</li> </ul>
<b>Deploy</b>	<ul style="list-style-type: none"> <li>• Emissions Trading scheme (Cap and trade)</li> <li>• CCS rules and recognition</li> <li>• Renewable Energy certificates</li> </ul>	<ul style="list-style-type: none"> <li>• Vehicle efficiency standards</li> <li>• Incentivise fuels based on well to wheels CO<sub>2</sub> reduction potential</li> <li>• Consumer behaviour</li> <li>• Use of public transport</li> </ul>	<ul style="list-style-type: none"> <li>• Efficiency standards (appliances)</li> <li>• Use of project mechanisms linked to the greenhouse gas market</li> <li>• Encouraging “electrification”</li> </ul>

The Emissions Trading Scheme objective, as defined in the Paper, is “to provide a transactional space that enables the transmission of permits to economic agents for whom they represent the greatest economic value” (page 5). In Shell’s view a key role of an Emissions Trading Scheme is to provide an incentive for greater efficiency and to direct capital towards more CO<sub>2</sub> efficient projects, via a market price for CO<sub>2</sub>.

## 2. Coverage

Shell believes the Power Generation and Industry Sectors are well suited to an Emissions Trading Scheme. However, Shell does not believe that an Emissions Trading Scheme on its own will effect the desired behavioural change or deliver the desired environmental benefits in the Transport sector.

The Transport sector requires complementary action by: providers of energy, providers of transport vehicles and users of transport vehicles. All three will have to act to impact this sector and to achieve the overall goals of greenhouse gas reduction production per unit of distance travelled and overall reduction of greenhouse gases.

The “make (reductions) or buy (permits)” model is the preferred architecture to the operation of an Emissions Trading System. This means that the holder of permits should be both the emitter and the party that can initiate the projects that create the reductions. Being both the holder of permits (i.e. the emitter) and the project owner (i.e. have the ability to make reductions) means that the emissions market can be used to help finance the project by selling the future reduction in the forward market and returning capital to the project owner. Alternatively, if no reduction opportunities present themselves, the permit holder can purchase permits for compliance and channel capital into the market for others to use on their projects.

To achieve the 2050 target, action will have to be taken in all sectors simultaneously. For example at \$50 per tonne of CO<sub>2</sub> significant action is likely to result in the Power Generation and Industry sectors, but such a price (which is equivalent to approximately 12 cents per litre of fuel) may not be sufficient to deliver a response in the Transport sector. In our experience, the demand for transport fuels is relatively inelastic, and we have seen little impact on overall fuel demand in the past few years, even as we have seen the price of regular unleaded petrol rise from AU\$1.00 to around \$1.50. As action needs to start in both sectors now, it implies that different or additional, policy instruments will be required.

In an Emissions Trading Scheme in which the Transport sector is covered and the fuel supplier is made responsible for the end use emissions (Upstream approach), then the fuel supplier becomes the regulated party and must surrender permits according to the calculated CO<sub>2</sub> emissions from the combustion of the fuel sold. This does not fit the “make or buy” model, which Shell sees as the preferred architecture to the operation of an Emissions Trading System,

Fleet transport within the Transport sector, e.g. aviation or a haulage company is a better fit for an Emissions Trading Scheme and it could be possible to incorporate, but with the fleet operator being the allowance holder. In the case of aviation, the carrier, as allowance holder, can adjust the mode of operation to some extent for example, through schedules, types of plane used and cooperation with airport authorities.

Should such an Upstream approach be adopted in the Australian Emissions Trading Scheme in addition to the issues outlined above, some business risks and liabilities are outlined below and should be taken into account in the design of an Emissions Trading Scheme:

- Fuel suppliers (approximately four) would potentially be responsible for approximately 14% of permits in Australia (ref. AGO 2005 data). This is a significant portion of permits for which a small number of permits holders is responsible.
- Due to the nature of the pricing of fuel and the potential changing price of carbon it is likely that the price of carbon will not be transparent in the price of a litre of fuel and potentially add to price volatility at the pump.
- There is currently no proposed phase-in mechanism to manage the transition from an economy without a carbon price to one with a carbon price. The inclusion of a phase-in mechanism may reduce some of the perceived or real business risks and liabilities.

Whether or not an Emissions Trading Scheme is used for transport fuels, a set of complimentary measures involving all three main stakeholder groups (providers of energy, providers of transport vehicles and the users of transport vehicles) is outlined below.

#### **i) The Energy Provider**

Fossil fuels will continue to provide the base load to the Transport sector for some decades. Policy should be designed to encourage substitution with the lowest CO<sub>2</sub> “well-to-wheels” alternatives, but not on a volume mandate basis.

Shell supports an approach that incentivises the use of fuels based on their “well-to-wheels” CO<sub>2</sub> reduction potential. The preferred approach targets the Well-to-Wheels (W2W) carbon footprint of energy/fuel within specified pathways (e.g. 2<sup>nd</sup> generation biofuels, electricity). Key design criteria should include:

- Basis is W2W CO<sub>2</sub> emissions per unit of energy delivered (e.g. tCO<sub>2</sub>/TJ). Must recognise the inherent difference in net CO<sub>2</sub> emissions of different bio-fuel production routes.
- Must allow for any upstream facilities already covered by an emissions trading system (to avoid double counting).

- Must recognise upstream changes to the emissions profile (e.g. fuel type used in a bio-ethanol facility, source of bio feedstock etc.) as they occur, where relevant to pathways being regulated.
- Calculation of the W2W CO<sub>2</sub> performance of different energy/fuel options must be determined using scientifically peer reviewed methodology and assumptions, and involve consultation with relevant stakeholders.
- Must provide a mechanism for a supplier to establish a new or updated W2W CO<sub>2</sub> performance for particular energy/fuel types within a given pathway.
- Must be part of a broader approach that includes linked vehicle efficiency standards (to enable the overall policy goal of W2W CO<sub>2</sub> reduction per unit of distance travelled).

## ii) The Vehicle Provider

Shell favours mandatory vehicle efficiency standards across all vehicle categories within a particular Transport sector.

## iii) Vehicle User

Any programme must include action to change consumer behaviour through incentives (e.g. for purchase of fuel efficient vehicles), charges (e.g. road use schemes), and education (e.g. efficient driving techniques).

As stated above, Shell does not believe that an Emissions Trading Scheme on its own will deliver the desired outcomes in the Transport sector. However, Shell recognises the current government intention to include transport fuels in the Australian Emissions Trading Scheme and we are working with relevant groups, such as the Department of Climate Change, to identify a workable solution should the Transport sector in its entirety be included in the Australian Emissions Trading Scheme.

## 3. Carbon, Capture and Storage

The Garnaut Interim Report “*identified arguments that would support the use of public funding for research, development and innovation around low and zero emission technologies...*” (page 53). Shell believes that industry and governments both have key roles to play in realising the full potential offered by CCS. Governments should partner with industry to finance significant large scale demonstration projects for promising technologies, which should include CCS.

Governments will also need to provide the long-term policy and regulatory framework that enables the move towards widespread deployment on a commercial basis.

Carbon storage (geosequestration) should be included in all Emissions Trading Schemes and the project-based mechanisms of the UNFCCC, and the development of standard rules and measurement protocols should be coordinated globally.

Shell advocates the following key features for CCS inclusion in an Emissions Trading Scheme:

- The source emitting installation should be incentivised to capture and export CO<sub>2</sub>. We do not consider storage crediting mechanisms to be appropriate as they would likely affect the fungibility of carbon assets generated by CCS with other tradable carbon commodities (see next point)<sup>(1)</sup>.

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(1) Largely because the mass of carbon stored by a CCS project is not equal to the amount of carbon avoided because of the energy penalty associated with the technology.

- Consistent approaches to accounting modalities are important so that a tonne of stored carbon (tCO<sub>2</sub>) is treated on an equivalent basis as a tCO<sub>2</sub> from other abatement technologies from the outset of the scheme. This implies that we do not support the use of discounting or temporary credit options. Also, there should be no linkage back to the commodity created (i.e. CCS commodities should not be labelled as a new asset class which is different to other ETS commodities).
- We view that the assurance over long-term storage must be delivered through an effective regulatory scheme focussing on risk assessment and risk management, which obviates concerns over the permanence of emission reductions. These obligations should be broadly consistent worldwide, taking into account differences in legal systems.
- Pooling of risk (via insurance), and/or bilateral agreements with host countries may be a more acceptable way of managing financial liabilities linked to non-permanence in the context of climate liability.
- Monitoring requirements for an Emissions Trading Scheme should also be consistent and harmonised worldwide so far as is possible, but we also recognise that CCS sites will have unique geologic characteristics, meaning bespoke modification will always be required.
- The IPCC (2006) has developed guidelines for monitoring and reporting emissions from CO<sub>2</sub> storage operations<sup>(2)</sup> (these have yet to be approved by the UN Government group – the COP/MOP). Use of this document will facilitate international emissions trading of Assigned Amount Units (AAUs). We support the approach outlined in this document, and consider it to be a blueprint for accounting modalities (monitoring and reporting) in all emissions trading schemes and jurisdictions worldwide.

## 4. Permit Allocation

### 4.1 Trade-exposed and Emissions-intensive Industries (TEEI)

The Paper states; *“If firms in the traded sector were subject to a higher emissions price in Australia than in other countries (which as price takers they were unable to pass through), there could be sufficient reason for emissions intensive activity to relocate from Australia to countries with lesser constraints on emission”* (page 38). Shell recognise the importance of maintaining international competitiveness and believes it is vitally important that the design of the allocation process should aim for “profit neutrality” and should consider the ability of the industry sector/facility to pass through costs to the consumer. In this approach the percentage of free allocation is linked with the ability to pass on the CO<sub>2</sub> cost through the value chain. If the price of CO<sub>2</sub> cannot be passed on, for example, if pricing is set by international competition, then 100% free allocation should be the outcome and a facility should receive the allocation it needs to remain competitive. Similarly, a shift towards auctioning is appropriate as the underlying CO<sub>2</sub> price makes its way through the value chain to the consumer.

The Paper goes on to state: *“Whether affected firms accessed payments in cash or free permits is largely immaterial, so long as the cash-equivalent of permits is calculated precisely at the time of payment”* (page 40). Shell’s preference would be for TEEI Industries to receive free permits for the reasons outlined in section 4.2 below.

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(2) IPCC 2006 Guidelines for compilation of National Greenhouse Gas Inventories, Volume 2, Chapter 5.

## 4.2 Releasing permits into the market

The Paper states; “*the design principles of credibility and simplicity and integration .....argue for auctioning*” (page 33).

Allocation of permits is possibly one of the hardest areas on which to agree. However as stated above in Shell’s view a key role of an Emissions Trading Scheme is to provide an incentive for greater efficiency and to direct capital towards more CO<sub>2</sub> efficient projects, via a market price for CO<sub>2</sub>. Conversely, the objective is not to withdraw capital from the economy and redistribute it to projects according to a subjective or non-market based set of criteria.

Shell believes permits should be granted free (grandfathering) at the start of an Emissions Trading Scheme and this should be based on historical emissions from a fixed year or average over a number of years.

## 5. Method of Permit Release: auction or free allocation

Shell does not favour auctioning of allowances in the first phase of a system because the impacts on the industries and firms covered by the system are highly uncertain, however as the system matures auctioning may be more appropriate. Should auctioning take place then the following is Shell’s position.

Shell supports a static auction with the release of the clearing price on the same day. This will allow a wide breadth of participation and encourages participants to submit bids, which more closely reflect their views of the market price. Pricing should be uniform across all participants, as the clearing price should reflect the price the market is willing to pay. A static auction quickly leads to results, and requires a simple administration only.

Annual auctions are strongly preferred to quarterly auctions. Quarterly auctions may encourage participants unfamiliar with the market to use auctions as the primary route for sourcing compliance. As a result, the secondary market is likely to have reduced liquidity, as some participants may stay out of it, thereby eroding the efficiency of the market in terms of price discovery.

An additional result is that companies that are relying on the auction for compliance may be less price sensitive, thereby reducing the accuracy of the auction itself for price discovery. If the auction clears at a substantial price differential to the secondary market price, this may cause a severe perturbation to the secondary market price, which creates long term uncertainty in the accuracy of the secondary market and will discourage liquidity providers from participating, again, undermining the efficiency of the market.

An annual auction at the start of a compliance year will allow the flow of allowances into the market, which will also mean that entities that have poor creditworthiness and that can only engage in spot trading (not forward trading) will be able to participate in the market.

Although the annual auction strategy is likely to lead to a more efficient market and therefore improved price discovery, for those companies that do buy significant volumes of permits in an annual auction, cash flow implications will arise. A system that allows creditworthy entities to manage cash flow over a longer period of time, for example paying the full amount in instalments (and receiving the permits in instalments) should be investigated.

The auctions should be open to as wide a participant pool as possible, within normal restrictions for participants.

Shell does not support price floors or reserve prices. It distorts the value of the auction as a process of price discovery. Prices should depend on (perception of) supply/demand fundamentals when the auction takes place. Reserve prices may result in Governments undermining price discovery and market efficiency.

Clear guidance should be given on the volumes to be auctioned well in advance of the auction itself in order to avoid detrimental impacts on the secondary market price.

The Government may choose to place the allowances on the market through other means, such as commercial sales. This is an acceptable alternative to selling allowances through an auction, but it should be done in a transparent and predictable manner.

## **6. Additional Measures**

The Paper states, “...*the various schemes would benefit from harmonisation*” (page 51). Shell is pleased to see that this is recognised and believes this is very significant in the success of an Emissions Trading Scheme. As outlined above not all sectors will suit an Emissions Trading Scheme and other complementary measures will be required to ensure the reduction of CO<sub>2</sub> across all sectors of society. In the same vein there may be measures that currently conflict with desired principles of the proposed Emissions Trading Scheme and Shell is of the view that these should also be reviewed and if found to be conflicting removed immediately. To this end, we welcome the Federal Government’s review of climate programmes being headed by Roger Wilkins.

With regards to greenhouse gas reporting Shell supports a single streamlined system that imposes the least cost and administrative burden. Shell believes that this is the intent of the National Greenhouse and Energy Reporting Act. When the national reporting system is implemented, inconsistent or duplicating State or Territory programs currently in place should be removed.