

Garnaut Climate Change Review

Emissions Trading Scheme Discussions Paper

CSR Limited operates four divisions, Aluminium, Sugar, Property Development and Building Products.

The building products division of the company was recently expanded by the acquisition of Pilkington Australasia and DMS Glass, now rebranded as Viridian™. Other well known building products brands held by CSR are Bradford Insulation™, Hebel™ light weight building blocks, Gyprock™ plasterboard, Cemintel™ cement sheeting, Monier™ and Wunderlich™ roof tiles and PGH™ bricks and pavers. We also own Edmonds ventilation and combined with our insulation and coated and performance glass business are able to offer climate control solutions to our customers, reducing energy consumed in the built environment.

CSR Sugar comprises farming operations, renewable power generation within its seven sugar mills, two sugar refineries within Australia and one in New Zealand. The division also includes CSR Ethanol. Bio-ethanol is produced for automotive purposes from molasses, a by-product of sugar. This process also delivers a liquid fertiliser stream which in turn is used back on the sugar crop. The company's facilities are located at Sarina, near Mackay in Queensland and Yarraville in Victoria.

Recognising the global challenge ahead and the influential role that Australia has played and will play going forward as a Kyoto signatory, CSR supports the introduction of an emissions trading scheme as one measure to deal with climate change. The company also supports a shorter term policy of a 20% renewables target by 2020. Acknowledging this may have a substantial impact on heavy power users some administrative arrangements may need to be put in place to deal with international competitive issues. The final policy element is demand side management or a national energy efficiency policy.

We offer the following comments in relation to the Emissions Trading Scheme Discussion Paper. This complements our previous submissions on agriculture, the 29 February submission to the Garnaut Review and the submission on Transport and Built Environment.

CSR Limited is a member of the Australian Industry Greenhouse Network. Generally our views are consistent with AIGN principles, but we may differ in some matters of policy where we have divergent interests, views or knowledge specific to our own businesses.

Framework to Guide ETS Design

Coverage

CSR sees the broadest coverage and inclusion of all sectors as highly desirable. However, as a company with agricultural interests, sugar farming, sugar milling and liquid fertiliser manufacturing, it is our view that the measurement, variability and the science around farming is not fully developed. To make early assumptions or rules of thumb assumptions about carbon processes in agriculture may lead to poor outcomes that possibly drive away from the goal of lower emissions by removing incentives to improve. IPCC assumptions have been demonstrated to be well off the mark for the sugar industry for example. Deeming provisions for the sugar cycle as provided for in current protocols should be retained. Massive disruptions to value chains and future claims for competitiveness provisions under Energy Intensive Trade Exposed Rules could result from premature coverage, depending on how agriculture is treated.

The sub sectors of agriculture need to have well developed work plans and discussion before agriculture as a whole is covered. Different sectors may have different points of acquittal. Sectoral plans which include the science and measurement, along with the degrees of uncertainty that would be acceptable to a credible scheme, will need to be developed before agriculture gains accession to the scheme. R & D programs to prepare the industry will inevitably be long term when it comes to plant breeding and change of farming techniques.

The agricultural sector will see the imposts of scope 2 and scope 3 emissions on accession of the trading scheme. Where appropriate processes are qualified, the sector should be allowed to develop offsets until the sector is covered. Therefore we support the objective of domestic offsets from uncovered sectors in principle. We do not understand the comment on p28 that EITE activities should be included in the scheme while agriculture is excluded. To some extent the issue about energy intensity depends on the boundaries defining agriculture and whether that includes processing of crops that are integral to harvest e.g. wineries and grapes. It would seem difficult to cover certain sectors of agriculture and not others. This could lead to favouring one type of production/crop over another. While ETS in itself will cause a shift in agricultural incentives, to create an interim disturbance may disadvantage one sector in favour of another, only to have the situation further change when all sectors were covered. This potentially adds unnecessary risk to participants in agriculture.

CSR has no particular view on forestry coverage except that forestry should not be benefitting from tax payer supported schemes, such as the Managed Investment Scheme and generating offset credits at the same time. However we are sceptical that farmers, especially small farmers or intense agriculture, can give over highly productive land to trees as an offset for farming emissions. In fact removing productive land from food production would not appear to be a desirable outcome. In relation to CDM or JI offsets we believe these should not be limited in relation to reducing domestic liabilities, especially where they lead to low cost abatement.

Point of Obligation

The point of obligation as a principle should be as close to the emission source as possible. However it is unreasonable for the consumer to produce credits at the fuel bowser for instance and therefore it is more efficient to have an upstream acquittal point.

CSR produces fuel ethanol from the sugar process, which has a low carbon footprint compared with gasoline. One thousand litres of sugar based ethanol displaces at least 1.4 tonnes of greenhouse gas from gasoline. Other bio-ethanol processes have lesser savings. It is appropriate to have some form of upstream acquittal for liquid fuels and this could be collected through the excise system, with tail pipe factors adjusted for the greenhouse savings potential of the fuel. Thus sugar based ethanol would have a factor of zero, being the process which provides the greatest greenhouse savings for example. Basing the liability on the actual tail pipe combustion products would create a perverse outcome for sugar based ethanol. At the tailpipe the product is not substantially different from gasoline and of itself would not create an incentive to use sugar derived ethanol as a greenhouse gas saving automotive fuel.

Through the nature of its businesses, CSR hedges aluminium, sugar and currencies on world markets. The ETS scheme should provide for opt in provisions for those companies whose facilities individually might not trip, but collectively they have a significant footprint. Alternatively, and this is the case for CSR, we have a mix of several facilities that are likely to trip and many facilities which will not trip the likely thresholds for direct acquittal. We buy energy on national contracts and would like the choice to acquit all or some of our emissions and manage our own carbon risk on behalf of those facilities which don't meet the trip threshold. That would mean two tiered pricing for energy, including gas, coal and liquid fuels, one with carbon priced in and one without. Provisions for opt in and opt out should be flexible, but predictable. New Zealand has already examined these options and their proposed rules for opt in opt out are worthy of examination. The Review acknowledges this concept in sect 3.4 dealing with petroleum fuel. We strongly favour opt in and out provisions to enable self management of carbon price risk.

Permit Design

We do not favour an annual trading scheme as such. It does not leave enough time for business planning and is likely to create a more volatile market with greater risk and uncertainty for mitigation investments.

Permit Issuance

An administrative allocation of permits, not cash, should be to those who are competitively disadvantaged (EITE's) and compensation to those who suffer one-off loss in value. The rest should be auctioned. Permits should have no other conditions than date stamping once issued. Permits need to be fully tradeable at market value. Our view is that permits are marked with the first year they are valid, and should be issued in advance. Introducing tiers into the market makes it more complex and will likely make international linkage, when it arises, more difficult. The ability to hold permits may make it more attractive and actually encourage energy intensive plants to close. Allocated permits should therefore be able to be realised at market value if

plants are closed. If this leads to a better global outcome with more efficient producers elsewhere, then this is to be encouraged. We do not support conditional permits. Permits will need to be released onto the market sufficiently quickly for the market to form. Companies will face substantial increases in working capital if they have to acquire and hold permits for a long period. Flexibility to return permits during the year may be one way companies decide to manage their acquittal rather than build up permits to year end and conduct a once off acquittal. The scheme should be flexible enough to allow companies to manage their acquisition and acquittals in the most effective manner for their business circumstances.

It should not necessarily be assumed that cost pass through of the cost of permits will necessarily occur, p 32. Where the cost can be passed through it would be reasonable to assume that most businesses will attempt to do that, but a price of carbon will cause market realignment in many ways. Material substitution may occur which caps pass-through or a change in downstream economics could mean that sectors which are not energy intensive, or don't make the cut for treatment, may see imported assembled goods being more competitive. Thus the manufacturer may not be able to pass through the cost of permits fully or partially. Pass-through could also be limited by the dynamics of the market where rapid fluctuations in price make it impossible to adapt selling prices quickly enough. Businesses will need to assess their input/output models and contracting arrangements as the date for ETS commencement approaches.

International Linkages

The volume price relationship in the Australian market will be lost with international linking due to the small size of the Australia market compared with other significant markets e.g. the EU. In the event of an EU or other significant market linkage, Australia will simply import the price from the larger market. It might meet the test of a cheaper cost pathway to mitigation as Australian emitters find it cheaper to buy permits than find abatement projects. The Australian market will have almost no impact on a large international market. Linkages should not be rushed into and an Australian scheme should be left to find its own pricing level should we actually want to undertake abatement on our shores. Australia has had strong advocacy in international agreements. What we need above all else is a scheme that works for Australia in the context of the Australian economy.

Eventually through CDM and JI mechanisms we may see some migration of international price, particularly as CSR endorses full flow through of credits from these mechanisms to the Australian market. Focus should be on making the Australian scheme work before we introduce linkages. Furthermore it gives us more time to assess the efficacy of the international schemes with whom we may seek to link. We don't want to link with a flawed scheme where we are subject to imported, but potentially distorted pricing.

Banking and Borrowing

CSR favours banking with limited borrowing. Banking therefore requires permits that have long life to be issued. Borrowing should be limited to squaring up arrangements at year end. Extensive borrowing has risks associated with default. Notwithstanding credit worthiness checks, there remains a risk that permits may not be re-paid. The likely impact on the scheme of defaults should be carefully considered before extended borrowing is permitted.

Avoiding Trade Distortions

We support the conclusions of the Review, section 3.8, p 38 regarding industries at risk. Many of CSR's competitors are based in economies that have not signalled any intention to introduce emissions trading or any form of carbon pricing. Under these circumstances we seek the following:

- An administrative allocation of permits to hold even on international competitiveness
- An administrative allocation of permits for the local expansion of those assets where this is significant
- An administrative allocation or permits for green fields investment that is foot loose, where this is significant.

The coverage of significant expansions and new investments may require a raising of the cap, although it will not impact global emissions outcomes. The imposition of an emissions trading scheme in itself will make Australia a less desirable investment destination due to the additional compliance and management requirements combined with the increased risk associated with uncertain future carbon prices. To extend existing asset life, rather than shorten it, which would be the case if competitiveness was not maintained, and to continue to attract investment in manufacturing and processing are important to the ongoing health of the economy. The ultimate consequence of not making these provisions to the Australian economy will be a hastening decline in manufacturing assets and a shift in output to those countries who free ride on carbon. These allocations are transitional in nature until such time as the playing field is levelled.

The model in appendix 3 does not recognise production economics of capital and energy intensive process or manufacturing industries. Economic theory for these processes suggest that the world price is set by the cash cost of the most marginal producer. With high fixed or semi-fixed costs, these processes often don't start to be profitable until at least 80% of production capacity is achieved. This could be due to the high energy cost to actually heat a furnace and keep it at temperature or due to turn down limitations when a process is recycling until 80% production is reached. In difficult economic times the lure of the incremental tonne of production at variable costings is tempting to a producer and is often marginally priced into non strategic markets to fill out a plant, but priced below cash cost, let alone total cost, then only the very low cost producers can compete profitably. The most successful commodity producers are those who are lowest delivered cost and therefore at the front of the supply curve. As the more marginal producers price at marginal or cash cost, depending on the state of the market, they tend to exit the business over time. The issue for an Australian producer with these production economics is that a carbon impost raises the total and marginal cost of production, pushing that producer to the higher end of the supply curve. As other countries impose similar costs then the supply curve will re-adjust to a different order. The issue for Australia, is that if competitiveness is not maintained, firms will not invest to keep assets competitive, the asset life will shorten and it will hasten the closure of what might otherwise have been competitive and likely energy efficient investments at the expense of less energy efficient or less competitive facilities in competing economies who fail to price carbon. Furthermore new foot loose investment will shift to countries without impost. The idea of an emissions trading scheme is to improve a global situation not re-locate our industries to those countries who don't wish to share in a solution to the global problem. While the notion of not impacting production levels below that that would occur in a business without a carbon price

case is valid, this may not be achieved in the way the model in app 3 is described. The notion that competitiveness can be adjusted by reducing production back to a lower level does not fit the concept of continuous industries in which we operate, whereby our costs dramatically rise with any cut back in production. Our unit cost position is best served by maximising production, fully utilising equipment and by growing with markets to drive unit costs down.

We do agree that in theory, the need for transitional assistance should diminish as more economies introduce a trading scheme. However the impact is not governed by the economies as such, but by the industry cost supply curve and whether the majority of facilities are located or whether new facilities choose to locate in countries without carbon impost. Having an emissions price in Australia pushes Australian industry higher up the supply curve, making expansion, or in fact any investment, less attractive in Australia, reducing the life of what today are often world class assets. New investment, which could include government equity, will take a long term view about economies without carbon imposts and place their investment dollars there. A prospect Australia already faces having signalled introduction of a scheme.

In determining allocations of permits to the EITE's a transparent rule making process is required.

In determining allocations, it will be simpler to determine loss of competitiveness than to calculate a theoretical market price shift. It is not straight forward in international markets where details of manufacturing economics may not be well known or where governments make unknown assistance provisions with energy and transport for instance. Predicting price behaviour can only be theoretical and may not represent the dynamic and competitive reactions at play in a fully functioning market environment. The real impact is the loss of competitiveness on a facility and therefore the owner's views about its asset's future potential. It is much easier for a firm to directly know the cost impost, net of inefficiencies and pass-throughs than to work out what a market might have done in a complex global scenario. Not all industries have an internationally transparent price in the way that crude and petroleum products or the London Metals Exchange post prices. There is no such visible price for glass for instance and yet this is likely to meet any EITE hurdles imposed regardless of any reasonable measure.

Experience curve tells us that global value-add declines at a certain percentage with every doubling of world wide production. This rate of decline varies depending on the specific product. Broiler chickens and jet engines have different rates than semi-conductors e.g. The value add reductions are due to changes in technology, quality improvements, cheap debottlenecking, knowhow etc. In some part this would be due to energy efficiency improvements. The process is lumpy and while the aggregate is a smoothed number, some of the gains occur with big shifts in technology. Assuming that all industries have an ongoing opportunity to improve energy efficiency every year, is not truly representative and there will need to be some tailoring to specific industries.

For instance, CSR makes glass – float glass and glass wool insulation. Float glass plants operate for 15 years without ever shutting down and then the furnaces are re-built. Efficiency peaks at the start-up after a new build and declines gradually over 15 years to the next re-build. Major opportunities to improve energy efficiency only occur every 15 years. The same situation applies for our glass fibre insulation business except that the cycle is 7 yearly. There

will always be peripheral improvements to energy efficiency in these facilities, but the large opportunities are irregular.

We do accept that gross inefficiency should not be rewarded and the ETS creates the potential to remedy this.

Rules need to be developed in relation to establishment of EITE status. They should be as simple as possible, but not disadvantage facilities that may be embedded in a sector where an overall sectoral test may fail and yet a facility within that sector may well be entitled to transitional allocations. It will be necessary anyway to evaluate facilities within sectors. CSR proposes that an economy wide EI threshold be introduced and those facilities which meet the threshold and the trade exposure criteria make application for allocations.

The allocation process must be transparent, given that it is likely to occur at a facility level. A Carbon Bank or other agency, no matter how well skilled the staff, will never have the specific knowledge and experience across the range of manufacturing facilities that will be seeking access to redress loss of competitiveness. The system will have no confidence by participants if it follows a process similar to that used by say Customs, in assessing anti-dumping claims whereby Customs investigations are held in confidence. In many cases industry is perplexed by what appears to them as illogical findings, because those findings or the assumptions behind them are not released. The design of the allocation system must be transparent so as to avoid such tensions. Similar frustrations can occur when dealing with the ACCC. The conclusions the assessment authority reaches must be transparent and provide for an appeal process which allows full discovery.

Compliance and penalties

The intent of the scheme is that real abatement occur and to this end compliance is critical to the integrity of the scheme. It would seem reasonable that penalties which may include make good provisions apply.

Compensation

The emissions trading scheme in operation will provide a substantial windfall and ongoing financial streams to Treasury through both auctioning and other tax collections. There will be many claims on these collections. Some claims will not become apparent until the scheme is in operation. Industries which have not been EITE's may well become so as the carbon price climbs and competing nations continue to avoid costing carbon.

Perverse outcomes through a focus on carbon, but not a focus on total energy outcomes, say via life cycle analysis or poor regulation e.g. Building Codes, may make some businesses obsolete, when in fact a full life cycle assessment including energy use in service might have driven a different outcome. Whole of government planning for an AETS is not apparent and it is likely that regulation will not change quickly enough to allow pursuit of the best overall outcomes. There is no doubt that there will be impacts on worker dislocation, whether in city or rural areas.

Scientific and technological context for ETS

Measurement accuracy to underpin the ETS has not been considered in any of the modelling. If Australia is to have an ETS of integrity then there will be large investments required in modelling, systems to obtain data, installation and upgrading of instrumentation and associated ongoing maintenance and calibration – a new “weights and measures” regime. CSR has not yet made any estimates of the likely cost to its business of measurement, but it is aware that there will be considerable investments in monitoring. It is a big assumption that companies have all the systems for data measurement and verification in place – they don’t and may well not have by 2010. We would expect many will not have adequate emissions data at the commencement of the scheme. Government should consider a grants program associated with instrumentation, or allow for rapid depreciation of this equipment. These are costs that will not be born by some international competitors. Embedded energy in many materials is not well understood and while forestry products may be prepared to make a case, many other sectors and products have not examined their full Life Cycle Assessments and could well be disadvantaged against timber for instance. Provision for other materials to include captured carbon must be made, not just for forestry products. However an important adjunct is to look at the full life cycle impact of goods and re-regulate to take the full in-use consumption into account where appropriate.

AETS prior to establishment of an International Agreement on Greenhouse Gas Mitigation, Trajectories etc

It is important for Australia to establish its own scheme and get it bedded down and working effectively before linking. This is particularly necessary because the scheme is being introduced at short notice and notwithstanding NGER’s obligations, it is CSR’s opinion, that many facilities will not have good data on which to move forward. The risk profile of an early implementation is high and the scheme must be bedded down before linking. Australia has the added complexity of MRET and its impact on trading for some years. International linkages should be of secondary consideration.

As international agreements take shape, or the science and technology changes, there may be a need to adjust the budget. Establishing trajectories and thus the cumulative emissions must be done in a way that industry can make plans with some kind of certainty about the future market. CSR does not support annual targets, as we believe this will lead to unworkable market conditions in terms of abatement project delivery. The company works on five year planning cycles updated annually.

In general we agree with AIGN in its submission on emissions limits.

It is ambitious to set a firm target today for 2050. Professor Garnaut has already remarked that 60% by 2050 might not be enough given what science is telling us. We would support a 15 year firm budget (sum of annual targets) with upper and lower gateways for a further 15 years. Every five years, review and roll forward the firm budget and gateways. This allows real market discovery and to bring forward capital and evaluate the most financially attractive opportunities. Long lead time of notice is beneficial so that the market can make its judgements going forward. Trajectories can be altered according to outcomes from international agreements and changing science. The proposition of trajectory scenarios being

described early in the scheme has some appeal, although government might think it limits its options for flexibility in unknown circumstances. Who can predict with certainty today what might influence trajectory over a 40 year time frame?

Of course trajectories have some what less meaning if the scheme is linked and a carbon price is imported. It may be cheaper to buy permits than to modify plant and equipment or change behaviour, in an internationally linked scenario..

We don't support the notion of per capita limits and don't believe this is an equitable way of arriving at a cap. Different economies have different strengths and weaknesses. Some sectors of the Australian economy are in fact exporting embedded energy—one of the main reasons that per capita emissions are high.

Price ceilings and floors

The scheme should not need a floor price. Budget adjustments should take care of any undershooting. There is a case for price caps, perhaps in the first budget period or during the duration of MRET, which will impose higher carbon cost on the economy earlier than would otherwise have occurred as higher cost technologies will be advanced earlier than an ETS would have allowed. As large nations e.g. the US and perhaps China introduce schemes the cost of renewable energy should drop substantially. At that time or when Australia is ready for linkages caps can be dropped. Caps should not be dropped until there is confidence in the Australian scheme and for that matter the international scheme before linking.

Impacts on Economic Activity and Income Distribution

The comments on carbon price and the economy are only true for a scheme that is not linked internationally. Our contention is that the scheme needs to be designed for the Australian economy first and foremost and linkage not be attempted until the scheme is well and truly bedded down. This is especially important as the lead time for implementation of the scheme has been accelerated.

Furthermore the design of the scheme must take into account the impact of MRET. This will distort markets during the life of the MRET scheme and the impact of this should be modelled. It will limit the price discovery process and lowest cost abatement path, but will provide a substantial boost to renewable energy and reductions in GHG's. MRET will drive some higher cost mitigation into the economy ahead of what would have been expected under an ETS transition. In a scenario that says no more coal fired power stations are to be built, the capacity uptake will, in the absence of MRET be gas. Gas will provide the long run clearing price for the market. In the case of MRET, renewables will be called into the NEM at low or zero price, displacing the gas opportunity and therefore overall lowering the wholesale price. The price will still be higher than if there were no ETS or MRET, but market theory as it relates to the NEM may suggest MRET will reduce wholesale prices. However the REC price penalty will be loaded to power prices overall.

Our own experience with the RECs market is that what is important to purchasers of RECs is whether they are buying competitively on the day, rather being concerned about the absolute market price. It is this experience that suggests CSR would have a strong interest in managing its overall carbon risk.

Not only will a carbon price drive the way in which power plants are run and called into the network, but it will also prompt major changes in energy transmission. This means significant investments in restructuring the grid and in the case of gas, transmission pipelines. The associated infrastructure investments must be factored into the economic modelling. Infrastructure will become a barrier to MRET implementation and a barrier to change under ETS.

As large economies e.g. the US embrace action to deal with climate change the cost of renewable energy should fall to the point that MRET becomes redundant and renewable energy can be taken up under the broad ETS. A sunset date needs to be established for expanded MRET so that investors know the pay back period that can be anticipated for investments and the transitional arrangements for ongoing credits.

Assistance to households

The third policy leg, dealing with demand side management, can provide assistance to households through residential energy efficiency programs. CSR has supported the VEET white certificate program and encouraged South Australia to adopt a similar scheme, at least in terms of back office process. CSR has the capability to supply products and systems to improve thermal efficiency in the built environment through its Bradford™ Insulation range, performance windows through its Viridian™ Division and various ventilation systems. Overall we support a national white certificate scheme, rather than a plethora of state and territory based programs. The schemes can have climate adjustment factors to cater for the varying geographic variances across the country. Thermal efficiency is just as important in hot climates as cool climates.

Governance

We believe that there needs to be a clear separation between policy, the government's domain and regulation, the role of the "administrator". Furthermore we believe that the regulator should not be a market player, as suggested on p43. The suggestion that a Carbon Bank be established may result in considerable additional cost. It should be considered from a cost effectiveness perspective whether this work could be undertaken by the Reserve Bank – a highly respected institution with many of the skills required for this task.

CSR welcomes the opportunity to make this submission. It provides an avenue to inform the debate as this country undertakes a serious transition to a low carbon economy.

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