

21 June 2013

Ms Anthea Harris
Chief Executive Officer
Climate Change Authority
GPO Box 1944
Melbourne
VIC 3001

Dear Ms Harris

Submission re CCA Review of Emissions Caps & Targets

The Australian Chamber of Commerce & Industry (ACCI) welcomes the opportunity to provide a submission to the Authority responding to its Issues Paper for the above review.

ACCI is the leading national association representing the interests of Australian businesses, including SMEs. We represent over 350,000 Australian enterprises across all parts of the economy. ACCI operates as the nation's peak council of business organisations and the voice of Australian enterprise and industry. As Australia's largest and most representative business association, ACCI speaks at a national and international level on behalf of the nation's peak State and Territory Chambers of Commerce and Industry and National Industry Associations from all sectors of the economy.

ACCI is firmly of the view that there should be no unilateral action by Australia on carbon reductions or imposition of a carbon price because there is no international agreement at this point in time and because of the negative impacts on our competitiveness of any unilateral action, including through increases in the price of energy.

In this context, ACCI is of the view that the most appropriate policy response, which causes the least economic dislocation, is to pursue abatement measures through the application of technology and efficiency measures based on the most effective measures that industry has chosen.

The Authority's recommendations in this review have the potential to impact on the future operations of our members in a significant way, particularly through setting quantitative limits on Australia's emissions. Based on current policy approaches, these will impact on future carbon prices, which flow through into electricity and gas prices, as well as other business inputs. How and to what extent this occurs is of significant concern to our members.

Most of the firms that make up ACCI's membership are small and medium enterprises (SMEs). A recent survey of our membership, *ACCI 2013 Pre-Election Survey*, found that over 80 per cent of respondents had suffered a loss in profitability due to higher electricity prices and three-quarters could not pass on the costs of the carbon price. ACCI would urge the Authority to recognise this vulnerable position in framing recommendations for this review.



AUSTRALIAN CHAMBER OF
COMMERCE AND INDUSTRY

COMMERCE HOUSE
24 BRISBANE AVE
BARTON ACT 2600

PO BOX 6005
KINGSTON ACT 2604
ABN 85 008 391 795

PH: 61-2-6273 2311

FAX: 61-2-6273 3286

WEB: www.acci.asn.au



Given our interest in the Authority's review, we commissioned DEE (Domanski Energy & Economics) to provide a report on the implications of the Caps & Targets Review for SMEs. The commissioned Report focuses on the economic and business aspects of the Authority's Review, the most critical element of it to SMEs. We have attached a copy of the DEE Report for the Authority's consideration.

In particular, we urge the Authority to take a realistic and measured approach to forming its recommendations. One that emphasises Australia's economic interests and recognises the absence of a global agreement on climate action; and one that does not seek to set Australia on a path that is ahead of the world but in concert with like economies with similar levels of trade exposure and fossil fuel reliance. To do otherwise could, in our view, put Australia's economic interests at risk.

This means that the unconditional target of a 5 per cent reduction in our Year 2000 emissions by 2020 should be regarded as a guiding measure only, capable of being relaxed in the event that it becomes clear that this level will harm economic growth or the competitiveness of Australian business. ACCI does not support going beyond this target in 2020, or setting firm targets beyond then.

The DEE Report referred to above addresses many of the issues raised in the Authority's Issues Paper in more detail.

If the Authority has any questions it wishes to raise with ACCI, please do not hesitate to contact me (greg.evans@acci.asn.au). For questions related to the attached report, please contact Mr Roman Domanski, Principal, DEE on 0419 101 114 or Domanski@bigpond.net.au.

Yours sincerely

Greg Evans
Chief Economist & Director, Economics & Industry Policy



SMEs and the Climate Change Authority's 'Caps & Targets' Review

A Report to the Australian Chamber of Commerce & Industry

June 2013
Domanski Energy & Economics

Disclaimers

Unless otherwise stated advice contained in this document is of a general nature only and should not be relied upon without first consulting with Domanski Energy & Economics. We and all persons acting for us in preparing this document accept no liability for the accuracy of or inferences drawn from the material contained herein, or for any actions as a result of any person's or group's interpretation, deductions, conclusion or actions in relying on this material.

This project was part funded by the Consumer Advocacy Panel (www.advocacypanel.com.au) as part of its grant process for consumer advocacy and research projects for the benefit of consumers of electricity and natural gas.

The views expressed in this document do not necessarily reflect the views of the Consumer Advocacy panel or the Australian Energy market Commission.

Contents

Executive Summary.....	iv
Recommendations	ix
1. Introduction	1
1.1. Outline and Purpose of the CCA Review.....	1
1.2. Purpose and Focus of this Report	2
1.3. Reasons for ACCI and SME Interest	2
1.4. Australia’s Emissions.....	4
1.5. Outline of the Report	6
2. SMEs, Greenhouse Gas Emission Caps and Targets and the CCA Review	7
2.1. How Caps and Targets Work and What They Do.....	7
2.2. The CCA’s Approach and Its Key Issues.....	8
2.3. Economic Impacts	9
2.4. Impacts on Carbon and Energy Prices.....	11
2.5. Other Energy Sector Considerations for SMEs.....	12
2.6. What if the Carbon Price is Abolished?.....	13
3. Promoting SME Interests to the CCA Caps and Targets Review	15
3.1. Setting the Targets	15
3.2. Setting the Trajectory	16
3.3. Setting the Caps	16
3.4. Energy Prices.....	16
3.5. Energy Supply Issues	17
3.6. SME Business Issues.....	18
3.7. CCA Modelling.....	18
4. Other Review Issues.....	21
4.1. Global Emissions Budgets	21
4.2. International Action	22
4.3. Sharing Global Emissions Budgets	23
4.4. Uncovered Emissions	23
4.5. Australia’s Progress in Reducing Emissions	24
4.5.1. Past Emissions	25
4.5.2. Future Emissions	25
5. Conclusions	27

Figure 1: Trends in Australian Greenhouse Gas Emissions 5
Figure 2: Australia's Direct Greenhouse Gas Emissions, Emissions Intensity & GDP 5
Figure 3: Caps, Targets and Trajectories 7

Table 1: Impact of Electricity & Carbon Cost Increases on Business 3

Executive Summary

The Climate Change Authority (CCA) is conducting a review of 'Caps and Targets' for Australia's carbon emissions. The CCA will also be assessing trends in Australia's emissions during the past two decades, and examining the main factors behind these trends and their implications.

The Authority released an Issues Paper in April, which sets out the purpose of its review and its key issues. Its report will include recommendations on a national emissions reduction target for 2020, and caps (that is, annual limits on emissions) for the first five years of trading under the carbon pricing mechanism. Moreover, it will consider making recommendations on longer term budgets, trajectories and targets; for example, to 2030 or 2050.

Whilst this is not a review of the carbon price *per se*, the setting of targets and caps will set quantitative limits on Australia's future emissions based on existing policy approaches this will help determine the carbon price; and feed into electricity and gas prices.

The Australian Chamber of Commerce and Industry (ACCI) commissioned DEE (Domanski Energy & Economics) to provide a report to inform its response to the CCA's Issues Paper. Given ACCI's predominantly energy user based membership, we have been asked to focus on:

1. The economic aspects of the CCA Review, especially as they relate to electricity and gas prices, supply conditions, demand, investment, supply reliability and technological change.
2. The implications of the Review for SMEs.

ACCI's position is that there should be no unilateral action by Australia on carbon reductions or imposition of a carbon price. This follows from the absence of international agreement and the risk of negative impacts on our competitiveness, including through increases in the price of energy. ACCI's view is that the most appropriate policy response, and that which causes the least economic dislocation, is to pursue abatement through technology and efficiency measures based on industry choices. Moreover, ACCI's view is that the unconditional target of a 5 per cent reduction in our 2000 emissions by 2020 should be regarded as a guiding measure only, capable of being relaxed if it becomes clear that this level will harm economic growth or the competitiveness of Australian business.

Although SMEs are not liable entities under the *Clean Energy Future* package, they are still significantly impacted by it in terms of the price they pay for electricity and gas, as well as other inputs and also in terms of what they can charge for their outputs, including passing through higher costs. For SMEs, the ability to pass on cost increases is also impacted by their small size and inability to negotiate with their supplies and customers from a position of equality in bargaining. The lower level of knowledge and information among SMEs about the carbon price and its pass through into energy prices also works against their interests. They are highly reliant on a competitive energy market to ensure that the carbon pass through they pay is not excessive.

A recent ACCI survey, made up mainly of small and medium enterprises (SMEs), found that the carbon price had affected the profitability of 82 per cent of respondents and that 75 per cent had difficulty passing on its cost, which is mainly in the form of higher electricity and gas prices.

Businesses, including SMEs, therefore have a strong interest in Australia's climate change policies. These policies will inevitably impose costs on them and challenge them to find new and different ways to operate. The way firms 'use' carbon and other greenhouse gases, or respond to higher costs in their supply chain caused by carbon pricing, especially for electricity and gas, will become a more important determinant of business viability in future.

This Report shows that whilst Australia's carbon emissions have increased over the past two decades, more recently they have shown a decline. That is, they have increased by less than GDP and our emissions intensity has been in decline for at least two decades. It also shows that the Australian Government's unconditional commitment of a 5 per cent reduction in our Year 2000 emissions by 2020 involves a significant effort of a 15 per cent reduction in our 2011 emissions that will challenge the economy. This provides important context to the Report.

The Issues Paper raises points about the economic impact of setting emissions caps and targets that are relevant to SMEs. Different choices about the budget, trajectory and targets will set the overall scale and pace of Australia's emission reductions and will therefore have different economic implications. The extent to which SMEs can, or cannot, avail themselves of emission reduction and energy efficiency opportunities, can have important impacts on their costs and operations. In addition, the extent to which the supply chain to SMEs is able to adjust to the caps and targets is important, most critically in the electricity and gas sectors.

The choice of policies that influence emission reductions is also important. Many of these policies impact SMEs through the pass through of the costs they impose. For many, this comes via increases in electricity and gas prices. Inevitably, some policies will also be more efficient at abating carbon than others. For example, a carbon price is lower cost and more efficient at abatement than renewable energy subsidies. However, all such policies impose costs on SMEs and these costs rise over time as carbon becomes more constrained. With flexible carbon prices there are also the costs of greater price volatility and uncertainty to consider.

Australia is likely to be a price taker when it links its carbon price to (much larger) international carbon markets such as the EU. EU prices are currently around one-sixth of our carbon price. The current outlook is for EU carbon prices to rise by 2015, but still remain below our current carbon price of \$23 per tonne of CO₂, rising by 2.5 per cent real each year while the fixed price is in place. However:

- The EU price is subject to considerable uncertainty. In particular, the price has remained low due to a range of factors but these could change by 2020 and there are continuing efforts to push up EU carbon prices. As recently as 2008, EU carbon prices traded as high as €30.
- It would seem to be inevitable that over time, carbon prices will increase as EU emission caps and targets are progressively tightened and to maintain scheme credibility. Some experts believe they will rise to levels around our current carbon price by 2020.

The impacts of the CCA's recommendations on SMEs will be significantly driven by increases in electricity and gas prices, and depends on:

- The stringency and speed of emission constraints. The more stringent and faster acting, the more SMEs are likely to experience higher electricity and gas prices.

- The extent to which the CCA takes account of economic factors and considers them more important than others. For SMEs economic considerations are paramount.
- How much energy the SME uses and the energy or emissions intensity of its operations.
- The response of sectors and firms to the targets and caps. Those firms least able to modify their operations in response to a higher carbon constraint will be the worst off. Firms operating in export or import competing markets are most exposed.
- CCA's consideration of international linking, whether constraints on linking bind, and the suite of climate change policies, will impact on carbon prices and flow on to energy prices.

There are other ways in which SMEs could be impacted by electricity and gas sector changes.

- Future investment in electricity assets could be affected depending on the stringency, timing and way in which targets and associated caps are set. This relates to security and reliability of supply but can also have an impact on power prices as riskier investments usually cost more. On the other hand, transparent targets and caps, set in an economically responsible way, may help future investment by promoting predictability and certainty.
- Policies to help achieve caps and targets are important. For example, a carbon price is relatively neutral in terms of technology, relying on economic signals to find the least cost abatement. Whereas renewable energy subsidies favour renewable technologies, usually at a higher cost. As SMEs are energy price takers, higher cost policies make them worse off.
- Overly stringent caps and targets could force existing capacity to exit prematurely and put reliability at risk. On the other hand, very flexible or overly weak targets may allow high emission generation to stay in production for longer.
- Stringent caps and targets will force electricity prices up, thereby dampening consumption or changing its direction, but could also encourage more efficient energy use.
- Electricity retailers will also respond to targets and caps. For example, they may be encouraged to offer more efficient ways to use electricity. This may be important to SMEs, who do not usually have ready access to energy efficiency experts and who may be able to use this opportunity to help overcome the higher costs they have experienced.

The setting of caps and targets and the certainty they provide will also have an impact on future investment in gas. Gas exploration involves risks and production requires significant capital. In Australia at present there is a vigorous debate about developing gas reserves, including coal seam gas on the eastern seaboard, primarily for export as LNG. Local industry has been critical of their needs being ignored. Given local gas users are already experiencing supply problems and price increases, the CCA should carefully consider the impact of targets and caps on gas supply and prices.

Australia's has abundant gas resources and gas is often seen as a fuel that will help our transition to lower carbon emissions. The CCA will need to consider the role gas can play in meeting our caps and targets. If gas is almost entirely focused on LNG exports and its price increases to reflect higher overseas gas prices, targets may be more difficult to achieve.

It has been suggested that the development of renewable energy, under the influence of generous government subsidies, is crowding out new gas generation and delaying the closure of coal-fired generation. The CCA should consider the impact of such policy interactions.

The Federal Opposition's policy is to abolish the carbon price and replace it with a 'buyback', whereby emissions are purchased by the Government via a reverse auction, starting with the lowest cost ones. It supports the same targets as the Government. Given that Australia faces a Federal election, it is relevant to consider caps and targets in a setting of no carbon price. What would this mean for SMEs?

- The costs of any caps and targets would be funded via the budget, not energy prices. SMEs would therefore see lower electricity and gas prices.
- Noting the Federal Opposition is also finding budget savings by dismantling a range of current mitigation programs and agencies.

The CCA proposes to use a range of general equilibrium and sectoral (electricity, transport and agriculture) models to help it assess the impact of its recommendations. This should not be the sole basis upon which recommendations are formed and the modelling should not be supported without qualifications. We have drawn attention to some of the limitations of this modelling.

We also comment on a number of other issues which are important to SMEs.

It would not be in the interests of SMEs to support the adoption by Australia of a global emissions budget at this time given the lack of international agreement, as well as the complexities and uncertainties.

The Authority acknowledges that international action is relevant to how Australia's economy will change over time and affect its competitiveness. For SMEs, especially those operating in international markets, competitiveness is paramount. In this context, the absence of international agreement is a serious concern and SMEs are not recipients of carbon pricing assistance.

The CCA needs to have full regard for the considerable difficulties in assessing countries' individual actions, measuring and determining their consistency, tracking progress and the risks that they will change their positions over time.

The CCA proposes to make cross-country comparisons of emissions using a number of metrics. These can provide widely varying results and parties may adopt positions based on their interests. Solutions to global climate change require cuts in the absolute level of emissions.

The Authority raises the question of how Australia's actions can influence others. We are not aware of any persuasive and concrete evidence that Australia's actions on climate change have demonstrably influenced other countries. In our view, it would take broad international action, or at least collective action by the World's major emitters, to exert widespread influence.

In its Issues Paper, the Authority says that it will consider Australia sharing in a global emissions budget. SME interests would be best served by not supporting global budgets given the risks and uncertainties involved, combined with the absence of any agreement in this area.

Uncovered emissions are significant, making up around 40 per cent of our total emissions. They are included in the target for emissions but not in the caps. The accuracy of measuring uncovered emissions is problematic which can affect how, when and whether Australia meets its target. The

treatment and measurement of uncovered emissions can also have economic consequences for business.

If Australia does not meet its target in the next period, it should first consider using its carry-over from the first Kyoto period to cover any shortfall, particularly considering the impacts of not doing so on growth and competitiveness.

The Authority will consider Australia's past progress and likely future progress in reducing emissions as part of its Review. It will seek to understand key drivers for past and future performance. However, it will not assess every sector in detail, but instead focus on the electricity sector. The Authority should make clear that it will consider competitiveness in this assessment.

In its assessment it should:

- Consider the recent downturn in electricity demand and the reasons behind this.
- Consider whether this trend is likely to persist and for how long.
- Recognise that there are a variety of explanations put forward for these recent trends.
- Consider trends, reasons and continuity in assessing reductions in our emissions intensity.
- Draw on soundly based modelling and other analysis to assess this but not rely solely on this.
- Not be prescriptive in identifying strategic milestones and establish if current policy settings can deliver these and the economy can absorb their costs.
- Consider that milestones, even at the specific level, such as for electricity, are subject to considerable uncertainty, especially further out in time when unknowns become more significant.
- Consider that the uncertainties about carbon pricing here and abroad will increase when one looks further forward, making an assessment increasingly difficult.

In summary, this report has found that SME interests would be best served if the CCA Review is conducted in a way which emphasises the primacy of economic factors in setting caps and targets. It has also found that the lack of international agreement on caps and targets, the uncertainties still associated both with the commitments made by countries to reduce emissions and their mechanisms to do so, mean that the Authority should take a cautious and conservative approach to recommending caps and targets in this, its first review. This applies to both medium and longer term targets. Australia should move with the pack rather than lead it in setting caps and targets. In addition, some of these risks and uncertainties, particularly international ones, may become clearer over time, providing a better basis to make decisions in future reviews.

Recommendations

This Report finds that SME interests on setting carbon emissions caps and targets would best be promoted by the following.

Targets & Trajectory

1. Targets should be set on the basis of economic responsibility and doing the least damage to business, including SMEs. Setting them in an economic context is the foremost priority, and we note ACCI's preferred views that a target should be a guiding measure only.
2. Provided it can be clearly shown that there will be no adverse impacts on the economy and business competitiveness, support no more than a 5 per cent reduction on Year 2000 emissions by 2020. The absence of an international binding agreement on reducing carbon emissions, and a lack of certainty and clarity about individual countries' actions preclude going further.
3. None of the Government's conditions for more ambitious 15 per cent or 25 per cent targets are yet in place. Hence, these ought to be put aside. Unilateral action on these now risks economic damage to Australia.
4. Setting targets for years beyond 2020 now is too uncertain and risky.
5. A target of an 80 per cent reduction in emissions by 2050 ought to be viewed as no more than intent, and should be adjustable over time as circumstances change.
6. SMEs are best served by policies based on achieving least cost abatement. Higher cost policies, such as renewable energy subsidies, should not be supported or should be phased out. The use of least cost polices delivers a given target at lower cost.
7. The trajectory should be consistent with the target for 2020.

Caps

8. Annual caps should be set so that they are consistent with the targets and trajectory.
9. Consideration should be given to adding a counter-cyclical dimension to caps, so that they can be adjusted up or down to reflect the prevailing state of the economy.
10. Caps should be set so that covered sectors are only responsible for delivering emissions reductions commensurate with their contribution to total emissions.

Energy Sector & Economic Impacts

11. Caps and targets should minimise their impact on electricity and gas cost increases. Electricity and gas prices are an important cost to SMEs. These costs have increased substantially in recent years, with further increases likely, and are considered to be one of the most important issues affecting SMEs in setting caps and targets.
12. Caps and targets and their level of ambition should ensure that the continuation of a secure and reliable supply of energy is not put at risk. Issues such as the rate at which new (lower emission) capacity is built, its reliability and its cost are important to SMEs.

13. Caps and targets should ensure that investment in energy supply continues to be made at a rate that matches demand plus reliability needs. This is not just a matter of the level of ambition but also the extent to which targets can realistically be achieved.
14. The setting of targets and caps needs to recognise that Australia has built its energy reforms around competition in supply, where possible, or effective regulation of monopolies, where not. These reforms are intended to benefit consumers and the economy. If energy markets exhibit price stress, as has been the case in recent years, this makes the task of delivering emission reductions more difficult.
15. It is important to SMEs that the CCA's Review considers the impact which its recommendations will have on broader economic settings, such as the macro-economy and the regulatory burden on business.

Other SME Issues

16. Uncertainties in assessing international action need to be overcome if the CCA is to produce robust recommendations based on this.
17. Given that solutions to global climate change require cuts in the absolute level of emissions over time, this metric must play an important part in the CCA's work.
18. SMEs' interests are best served by not supporting a sharing of global budgets given the inherent risks and uncertainties, combined with the absence of any international agreement.
19. If Australia does not meet its target in the next period, it should consider using its carry-over from the first Kyoto period to cover any shortfall, particularly considering the impacts of not doing so on growth and competitiveness.
20. The assessment of future emissions is a highly problematic exercise and CCA should take a cautious approach. It should eschew supporting particular methods, approaches and recommendations, especially where they are highly specified and very long term. The Authority cannot predict the future, especially in a long term horizon with so many unknowns in play.

1. Introduction

1.1. Outline and Purpose of the CCA Review

The Climate Change Authority (CCA) is conducting a review of 'Caps and Targets' for reductions in Australia's carbon emissions. The CCA is established under the *Clean Energy Act* and related legislation. It is an independent body charged with providing advice to the Commonwealth Government on climate change policy. As part of its legislative remit, it is required to conduct reviews of Australia's carbon emissions Caps and Targets and this is the first time it has done so.

The Authority released an Issues Paper in late April which outlines the purpose of its review and what it sees as the key issues for consideration. It set out two broad topics for examination in the Review:

- Australia's progress towards its medium and long term emissions reduction targets; and
- Australia's appropriate emissions reduction goals.

The CCA has clearly stated that:

As its starting point, the Authority accepts the view that it is in Australia's interests to support global emissions reductions to limit global average warming to 2 degrees Celsius or less. Additional starting points are Australia's long term target to reduce emissions to 80 per cent below 2000 levels by 2050, and the policy action of Australian governments at all levels to reduce emissions. The 2050 target and policy measures (which include the carbon price) are among the 'givens' for this Review. (Issues Paper, p. vii)

The Authority must report to the Government by 28 February 2014. It has said that its report will include recommendations on a national emissions reduction target for 2020, and caps (that is, limits on emissions) for the first five years of trading under the carbon pricing mechanism. Whilst the Review is not a review of the carbon price mechanism *per se* and based on current policy approaches, it has clear and obvious implications for the carbon price, as the setting of emission targets and caps will set quantitative limits on Australia's future greenhouse gas emissions, and this will be an important determinant of the carbon price and also feed into electricity and gas prices.

Given the long term nature of climate change, and of the policy frameworks for dealing with such change, the CCA has said that it will "conduct its analysis and determine its recommendations in the context of timeframes that extend well beyond 2020." It has also noted that those longer term perspectives could well have implications for the recommendations for 2020. Moreover, the CCA will assess Australia's possible actions beyond 2020, and "will consider making additional recommendations on budgets, trajectories and/or targets for longer periods; for example, out to 2030 or 2050."

The CCA will also be assessing trends in Australia's emissions during the past two decades, and examine the main factors contributing to those trends and their implications for Australia's medium and long term targets.

The Authority has said that it proposes to focus on four main issues in recommending emissions reduction goals for Australia:

- The science-related aspects of global emissions budgets, pointing to the overall level of emissions reductions required to limit warming to 2 degrees;
- Approaches to sharing global emissions budgets among nations;
- The extent and nature of international action to reduce emissions; and
- The economic and social implications of different emissions reduction goals for Australia.

1.2.Purpose and Focus of this Report

The Australian Chamber of Commerce and Industry (ACCI) commissioned DEE (Domanski Energy & Economics) to provide it with a report to inform its response to the CCA's Issues Paper.

ACCI is the leading national association representing the interests of Australian businesses, including SMEs, numerically its dominant form of member. It represents over 350,000 Australian enterprises across all parts of the economy. ACCI operates as the nation's peak council of business organizations and the authentic voice of Australian enterprise and industry. ACCI is Australia's largest and most representative business association, and speaks at a national and international level on behalf of the nation's peak State and Territory Chambers of Commerce and Industry and National Industry Associations from all sectors of the economy.

This gives give it the mandate and authority to be the essential connection between industry, governments, regulators and influential policy forums which affect doing business at home and abroad.

Given ACCI's membership and its interest in the CCA's Review we have been asked to focus on:

1. The economic aspects of the CCA Review, especially as they relate to electricity and gas prices, supply conditions, demand, investment, reliability and security of supply, and technological change.
2. The implications of the Review for small and medium enterprises (SMEs), numerically the vast bulk of ACCI members.

1.3.Reasons for ACCI and SME Interest

ACCI's position in relation to emission reduction targets and the carbon price is that there should be no unilateral action by Australia on carbon reductions or imposition of a carbon price. This follows from the absence of any international agreement and the risk of negative impacts on our competitiveness from unilateral action, including through increases in the price of energy. In this context ACCI is of the view that the most appropriate policy response, and that which causes the least economic dislocation, is to pursue abatement through the application of technology and efficiency measures based on industry choices of the most effective measures.

Moreover, ACCI's view is that the unconditional target of a 5 per cent reduction in our Year 2000 emissions by 2020 should be regarded as a guiding measure only, capable of being relaxed in the event that it becomes clear that this level will harm economic growth or the competitiveness of business.

Businesses, including SMEs, need to show a strong interest in Australia's climate change policies. These policies will inevitably impose costs on businesses and will challenge them to find different and new ways in which to operate. This obviously applies to firms operating in international markets (export or import competing) but also to firms operating in the domestic market. The way that these firms 'use' carbon and other greenhouse gases or respond to higher costs caused by carbon in their supply chain, especially electricity and gas, will become a more important determinant of business viability in the future.

Most of the attention of firms since the introduction of the *Clean Energy Future* package has been on the carbon price. This is understandable given the fact that the carbon price has been added into electricity, gas and other supply chain inputs and has also had a very high profile. ACCI members, including SMEs, have expressed concern about the impact of the carbon price on them as, for example, reflected in the recent ACCI *Pre-election Survey* which found that:

*"More than 80 per cent of businesses surveyed agreed that the recent increases in electricity prices have reduced their businesses profitability (82.2 per cent), while more than three-quarters of businesses agreed that they are not able to fully pass on cost increases flowing from the imposition of a carbon tax to their customers (75.1 per cent)."*¹

A total of 1,700 businesses were surveyed, of which 1,096 were small businesses and 478 medium-sized businesses. The full results for this part of the survey are show in Table 1 below.

Table 1: Impact of Electricity & Carbon Cost Increases on Business

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	N.A.
Recent increases in electricity prices have reduced my business profitability.	55.5	26.7	11.5	3.7	1.7	0.9
I am not able to fully pass on cost increases from carbon tax to my customers.	50.3	24.8	13.3	2.9	1.9	6.7

Source: Australian Chamber of Commerce & Industry, *2013 Pre-election Survey*, p. 17, May 2013

Similarly, a recent article in the *Australian Financial Review* reported that small business is being adversely affected by large increases in electricity prices, at least partly attributable to the carbon price.²

¹ Australian Chamber of Commerce & Industry, *2013 Pre-election Survey*, p. 17, May 2013.

² See *Australian Financial Review*, 'Power bills kill SMEs', p. 40, 14 May 2013.

While the carbon price may be the most obvious manifestation for business of climate change policies, especially given its interaction with electricity and gas prices, there are other aspects of climate change policy that will have an important bearing on business costs in future. This includes the setting of emissions targets and caps, the subject of the current CCA Review, as these set quantitative limits on carbon emissions and, with an emission trading scheme in place from 2015 rather than a fixed carbon price as at present, these limits will have a major bearing on the price that carbon trades at in future. This will feed into electricity and gas prices.

Although SMEs are not liable entities under the *Clean Energy Future* package, they are still significantly impacted by it in terms of the price they pay for electricity and gas, as well as other inputs to their business and also in terms of what they can charge for their outputs, including passing through their higher costs. For SMEs, the ability to pass on such cost increases may also be significantly impacted by their small size and inability to negotiate with their supplies and customers from a position of equality in bargaining. The likely low level of knowledge and information among SMEs about the carbon price and its pass through into energy prices also works against the interests of SMEs. They will be highly reliant on a competitive energy market to ensure that the carbon pass through they pay is not excessive.

While the carbon price has only been in place for a year, the ACCI survey referenced above suggests that many (around three-quarters) of SMEs have had difficulty passing on electricity and carbon related cost increases.

Furthermore, over time it is to be expected that the constraint on carbon emissions will become progressively tighter and that, as the supply of permits diminishes, the price at which they trade will increase. This, in turn, will feed into electricity and gas prices (amongst others) and further increase business costs for SMEs. As they have difficulty passing on this additional cost and their profitability is reduced, SMEs could be placed under business stress.

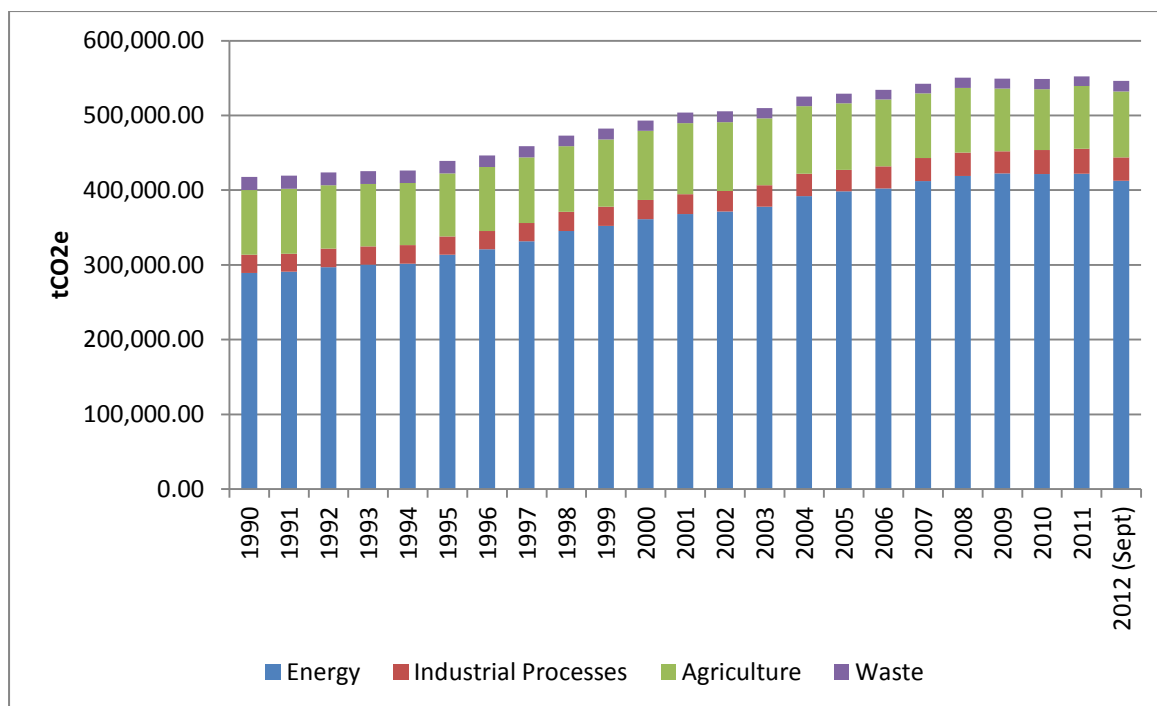
1.4. Australia's Emissions

In the context of this report, it is worth considering some aspects of Australia's carbon emissions at the outset.

Figure 1 shows trends in our emissions since 1990. It is worth noting that emissions have grown in that time from 417.7 mtCO₂e in 1990 to 546.2 mtCO₂e in September 2012, or by some 31 per cent. However, this growth has slowed significantly since 2000 (by 11 per cent) and since 2008 there has been a slight decline in our emissions (by nearly 1 per cent).

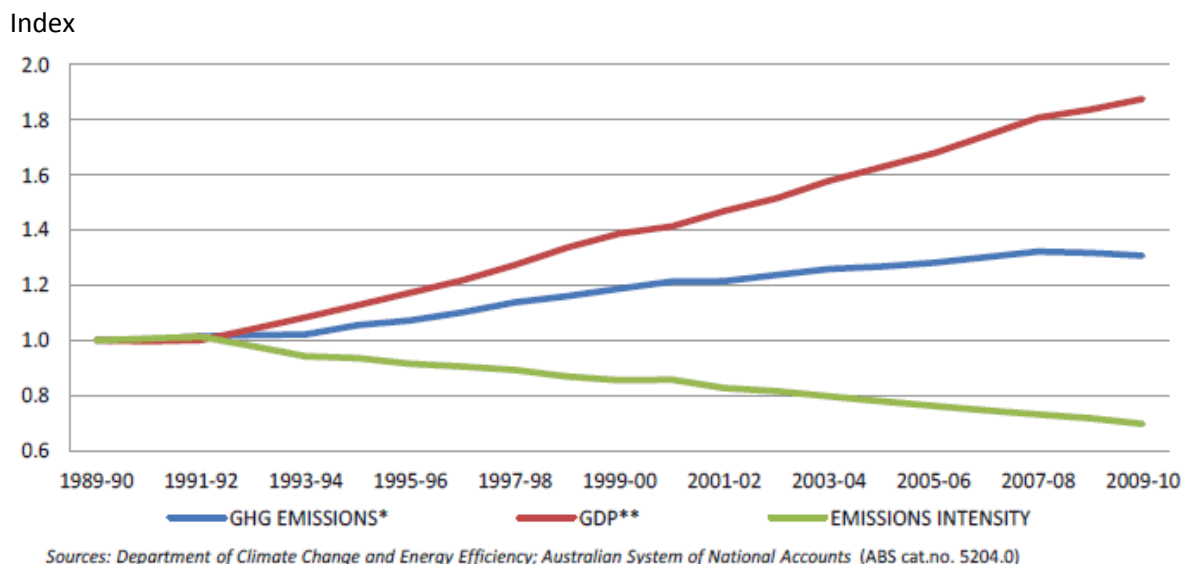
Moreover, emissions have grown by significantly less than GDP over the past two decades and our emissions intensity has declined by some 30 per cent (see Figure 2 below). Any suggestion that Australia has not made some progress in dealing with its carbon emissions would not be correct.

Figure 1: Trends in Australian Greenhouse Gas Emissions



Source: Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education, *Australia's Greenhouse Gas Inventory*.

Figure 2: Australia's Direct Greenhouse Gas Emissions, Emissions Intensity & GDP



It is also worth pointing out that the Australian Government's unconditional commitment to reduce our carbon emissions by 5 percent on Year 2000 levels by 2020 is, in fact, a significant one that will be challenging for the economy. The 5 per cent number might sound 'small' but, in fact, requires a significant 15.2 per cent reduction on our 2011 emissions, the peak year for emissions and a 14.2 per cent reduction on those recorded in September 2012 (the most recent data).

Two important points can be made about the above:

- Australia has not been idle in reducing its emissions and has made some progress; and
- Even the minimum level of international commitment to reduce carbon emissions by 2020 made by the Australian Government involves a significant reduction in present levels and will be economically challenging to absorb.

1.5. Outline of the Report

Section 2 of this report discusses the workings and impacts of carbon emissions caps and targets, the subject of the CCA Review. It also describes the CCA's approach to the Review and its key issues. It then goes on to cover the economic aspects of the CCA's Review, the focus of this report, especially on energy prices and other energy sector considerations. It concludes by examining what economic impact the removal of the carbon price and its replacement with an alternative policy would have.

Section 3 assesses the impact of the CCA Review on SMEs and outlines a range of positions that would promote the interests of SMEs for ACCI to consider in the context of the Review. This includes the setting of targets, trajectories and caps, energy price issues, electricity and gas supply side issues, including investment and security of supply, broader business/economic issues for SMEs and the CCA's economic modelling, especially its modelling of electricity sector impacts.

Section 4 covers some of the economic aspects of other CCA Review issues, especially as they relate to SMEs. This includes global emission budgets, international linking of carbon schemes, the concept of sharing global emission budgets, the treatment of uncovered emissions and assessing Australia's progress in reducing emissions (past and future).

2. SMEs, Greenhouse Gas Emission Caps and Targets and the CCA Review

This section looks at how carbon emission caps and targets, the subject of the CCA review, work and what they do. It also considers the CCA's approach to its review and then goes on to discuss how the review impacts on SMEs, including through carbon and energy prices, other energy sector impacts and other business or economic impacts. It concludes by asking what would be the impact on our caps and target if the carbon price were abolished and replaced by an alternative policy?

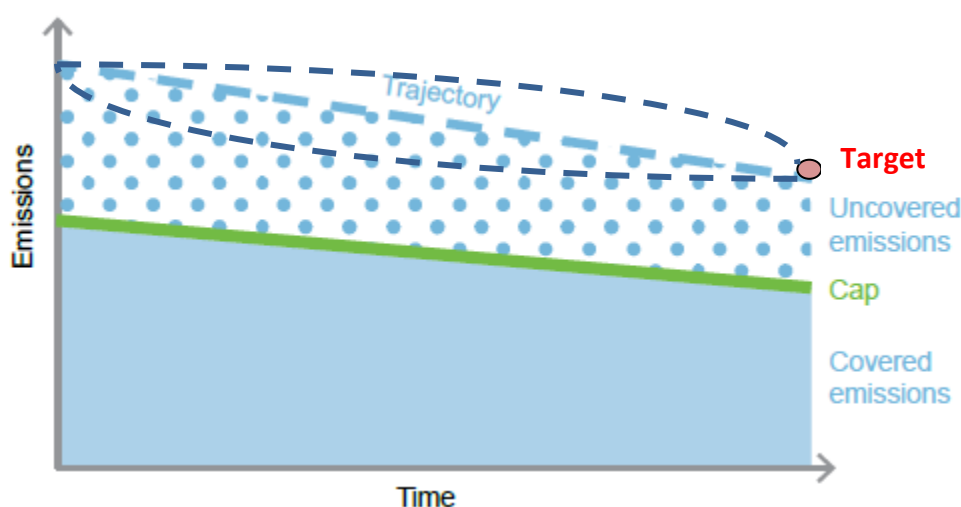
2.1. How Caps and Targets Work and What They Do

The CCA has been asked to recommend to the Government 'caps and targets' for Australia's carbon emission reductions.

'Targets' are goals for national emission reductions usually expressed in terms of a particular metric (e.g., CO₂ reduction or temperature change), for a year into the future. They represent the emission reduction task that Australia will commit to. There can be more than one target, for example, medium term and longer term ones.

The path to meeting these targets is called the 'trajectory' by which emissions reduce over time. The trajectory can be a straight line, suggesting a constant rate of emission reductions (all generations share equally in the task), or it may be some other shape, for example, concave whereby the rate of emission reductions becomes steeper (i.e. more severe) as time goes by, effectively deferring reductions to a later time (future generations), or convex, whereby the rate of reductions becomes less steep (i.e. less severe) over time, thereby making current generations accept more of the responsibility for reducing emissions. This is shown conceptually in Figure 3.

Figure 3: Caps, Targets and Trajectories



Source: Adapted from Issues Paper, Figure 7, p. 32

'Caps' are annual limits on emissions covered by the carbon reduction scheme, e.g., the carbon price. As not all carbon emissions are covered by Australia's carbon price scheme (only about 60 per cent are covered), there is a gap between the trajectory and the cap for any given year.³ However, uncovered emissions still need to be measured in some way so that they can be included in the emissions trajectory and target.

It is important to also note that, as carbon emissions are a world-wide issue, Australia's caps and targets also need to be seen in this context. In particular, Australia meeting all its emissions reductions domestically would make the task of meeting our target more costly, whereas being able to access cheaper emissions reduction opportunities internationally would make the task of meeting our target less expensive or alternatively could allow for a more ambitious target for any given cost.

2.2. The CCA's Approach and Its Key Issues

Important aspects of the CCA's intended approach to the setting of caps and targets for emission reductions include:

- It accepts that climate change is a global issue, that Australia's emission reduction goals and actions are part of this and that there is a common global objective "to avoid dangerous climate change" such that global warming should be limited to no more than 2 degrees Celsius.
- It accepts the conclusions of Prof. Garnaut that "the costs of strong action to reduce emissions are outweighed by the benefits of lower climate change impacts and risks – that is, the costs of action are less than the costs of inaction." (Issues Paper, p. 3)
- It will take into consideration Australia's undertaking to reduce emissions by a minimum of 5 per cent on Year 2000 levels by 2020, or by 15 or 25 per cent in the event of international agreement, but is not constrained by the Government's conditions for the latter two.
- It also proposes to take the Government's target to reduce emissions by 80 per cent on 2000 levels by 2050 as its reference point for the Review but has invited comment on this.⁴
- It will review Australia's progress to date in achieving its emission reduction targets.
- It will recommend a national carbon budget and indicative trajectory at least to 2020 and may extend this to, say, 2030 or even 2050.
- It will recommend caps for the first five trading years, that is, 2015/16-2019/20.
- It will not apply a "simple formula to derive targets and caps" as "there are many considerations relevant to determining Australia's appropriate emissions reduction goal as set out in the *Clean Energy Act, 2011*."⁵
- It will consider the need to reduce uncertainty and manage risks in recommending targets, trajectories, budgets and caps and for how far into the future.
- It recognises that it will need to exercise judgement in setting targets and caps and that new information may cause these to be changed in future.

³ It is expected that over time more emissions will be covered, e.g. agriculture and transport, so that the difference between the cap and the trajectory will narrow.

⁴ It should be noted that the Authority is not bound by this target but must have regard to it. However, it can choose another one (higher or lower).

⁵ See Issues Paper, p. 4 for a list of these.

- It will not examine the merits of the carbon pricing mechanism, nor its detailed design.

The CCA's Issues Paper has also highlighted four broad issues for consideration in its Review:

- The science-related aspects of global emission budgets.
- The extent and nature of international action.
- Approaches to sharing global emission budgets between countries.
- The economic and social implications of different goals.

This report focuses on the last point, which is of most relevance to SMEs and business more broadly, though it also considers the economic and SME aspects of the first three points, particularly as they relate to energy issues.

2.3.Economic Impacts

For SMEs and business more broadly, the economic impacts of the CCA's recommendations on caps and targets for emission reductions are key in terms of how the review affects them. As economic agents, firms operate principally in an economic paradigm, although they are not totally isolated from a range of other factors such as social, cultural, political and environmental arrangements.

The CCA Issues Paper discusses a range of economic issues related to the setting of caps and targets for emissions. These are set out below along with our comments on how they impact SMEs:

- Different choices about the budget, trajectory and targets will set the overall scale and pace of Australia's emission reductions and therefore have different economic and social implications. This should help inform what Australia does. SMEs will be impacted by such choices for better or worse.
- The emission reduction opportunities available to Australia, including low-emission technologies, energy efficiency improvements, different production processes and changes in consumer tastes and preferences. The extent to which SMEs can avail themselves of such opportunities, or are not able to, can have an important impact on their costs and operations. In addition, the extent to which other parts of the economy, especially the supply chain to SMEs, are able to adjust to the caps and targets can have an important impact on SMEs. This includes the electricity and gas sectors who supply energy to SMEs.
- The choice of policies that impact on emission reductions is also influential. Specific mention is made in the Issues Paper of the carbon price, as the central plank of the Government's policy, but also of the Renewable Energy Target and state land clearing policies. Also of interest are energy efficiency programs, state renewable subsidies and a range of other regulatory mechanisms. Many of these policies impact on SMEs mostly through the pass through of the costs they impose. For many such policies, this pass through comes via increases in electricity and gas prices. Inevitably, some policies will be more efficient at abating carbon than others, which will be reflected in their costs per unit of abatement. For example, it is generally agreed that a universally adopted carbon price is lower cost and more efficient at carbon abatement than renewable energy subsidies. However, it is worth noting that all such policies impose costs on SMEs, especially where they are both adopted at the same time – the difference is in their degree.

- The decision to link Australia's carbon price mechanism to overseas carbon markets from 2015, when an emissions trading scheme is due to begin, most particularly the European Union (EU) and through Certified Emission Reduction (CER) units under the Clean Development Mechanism. This allows carbon to be abated more cost effectively for any given target and cap by providing access to lower cost forms of abatement and if carbon prices in the EU and through CERs remain below ours. The benefits of a lower carbon price should flow through to SMEs, although it should be added that there are still costs imposed on them regardless and these costs will increase as international carbon prices (inevitably) rise when carbon becomes more constrained. In addition, once international linking occurs, firms will be exposed to the additional risks and costs of greater price volatility and price uncertainty.
- Australia is likely to be a price taker in linking its carbon price to (much larger) international carbon markets such as the EU's. This is a function of the differences in size of the two markets. This would suggest that whatever the price is in the EU will become the default price in our market. EU prices are currently very low compared to our carbon tax (around one-sixth of our carbon price).⁶ The current outlook is for EU carbon prices to rise by 2015 but not by enough to close this gap, suggesting a fall in our carbon price once linking becomes reality. However, caution is needed in assessing this:
 - The EU price is subject to considerable uncertainty. In particular, the price has remained low due to a range of factors such as prolonged recession in many EU countries, and the inability of member states to agree on changes to the EU scheme that would force carbon permit prices higher. These circumstances could change before 2020 (the first target for the CCA Review) and there are continuing efforts to alter the EU scheme in ways that would push prices up, with some member states continuing to favour more ambitious targets for the EU along with significant structural changes to the EU scheme.
 - It would seem to be inevitable that in the longer term, so long as the EU scheme continues to operate as a carbon trading regime, there will need to be higher prices as their emission caps and targets get progressively tighter. This is simply a matter of supply and demand.

As a price taker, Australia could see higher carbon prices or lower ones (than currently prevail here). In fact, prices will need to rise over time to deliver more stringent targets. SMEs will see this most visibly in higher prices for their electricity and gas.

- The CCA Issues Paper also suggests two ways in which the choice of targets and caps could increase carbon prices, which would impact on SMEs through their electricity and gas prices:
 - Even though Australia accounts for only a small share of global emissions, if it sets more stringent caps, it can still have a material impact on the demand for international units, which would lead to higher international carbon prices.
 - If targets and caps are set at a level that makes the limit placed on access to international carbon units binding, the Australian price will need to rise above the international price to deliver greater domestic emissions.

⁶ Australia's fixed carbon price is currently \$23 per tonne CO₂. It rises by 2.5 per cent real on both 1st July 2013 and 2014.

It goes on to say that the Review will investigate international carbon markets, the implications for the availability and price of international carbon units in Australia and the likelihood and consequence of the limit on imports becoming binding.

- The Issues Paper recognises both the importance of the carbon price to the economic and social impacts of various targets and the considerable uncertainty about what this price will be. Hence, the CCA intends to model different targets with various carbon prices to assess their economic impacts. Recognising the importance of international actions, the CCA proposes to assess different carbon prices using different international goals. This work and how it feeds into economic and energy market impacts will be of importance to SMEs.

2.4. Impacts on Carbon and Energy Prices

The main impacts of the CCA's Review of Caps and Targets on carbon prices were outlined in previous section.

SMEs do not currently see any direct compliance impacts of the fixed carbon price and this will not change under a flexible price regime from 2015 onwards. Rather, the carbon price impact flows through to them in the form of higher electricity and gas prices, as well as increases in the prices of other inputs they use in producing goods and services. The extent of this impact, for any given carbon price, then depends on how much energy they use and the energy intensity of their operations.

Nevertheless, the impacts of the CCA's recommendations will be important to SMEs:

- The stringency of the CCA's recommendations will impact on carbon prices and flow through to energy prices. The more stringent and faster acting the targets and caps, the more SMEs are likely to be impacted by higher electricity and gas prices.
- The manner in which and degree to which the CCA takes account of economic and social considerations in setting caps and targets will also be important. For SMEs economic considerations will be paramount.
- The response of sectors and firms to the targets and caps that are implemented will also be relevant. If firms are not easily able to modify their operations in response to a higher carbon constraint, they will be worse off as they are less able to avoid higher costs. As mentioned earlier, SMEs have a particular difficulty in passing through cost increases, including the carbon and energy prices to their customers and find it more difficult to avoid cost increases from their suppliers. Those operating in export or import competing markets will be most exposed, especially if their competitors are in countries with no, or lower, carbon or energy prices. Of course, to the extent that the economy and firms can adjust relatively easily, these impacts will become more moderate. Hence, the degree and speed of adjustment to lower emission technology, to energy efficiency opportunities and the like will also play an important role and needs to be considered by the CCA.
- As discussed in the previous section, the CCA's recommendations on issues such as linking to international carbon markets, and whether constraints on linking bind will also impact on carbon prices and their flow through to energy prices.

2.5. Other Energy Sector Considerations for SMEs

Whilst the impact of the CCA Caps and Targets Review on energy prices is a significant issue for SMEs, there are other ways in which it could impact on them as far as the electricity and gas sectors are concerned.

For electricity, the setting of emission caps and targets could have important impacts such as:

- Future investment in electricity assets could be affected by the stringency, timing and way in which targets and associated caps are set. An overly stringent or rapid approach, which does not take account of the ability of the electricity sector to adjust to lower carbon emissions, could put investment at risk. This relates to the important issue of security and reliability of supply to consumers, but can also have an impact on power prices given that riskier investments generally cost more. On the other hand, the setting of transparent targets and caps may actually help provide a better environment for future investment by creating predictability and certainty for investors. The CCA review will need to carefully consider and assess such matters and where the best balance lies. The interests of energy consumers, including SMEs, need to form part of this assessment.
- Policy measures to help achieve caps and targets are also important. For example, a carbon price will generally be relatively neutral in terms of technology, relying on economic signals to find the least cost form of carbon abatement. Whereas renewable energy subsidies will favour renewable sources of energy over other technologies, usually at a higher cost. Although the promotion of certain technologies may accelerate their progression down the cost curve, the use of subsidies to do this creates a climate of 'picking winners'. For SMEs, who are generally price takers in terms of their energy consumption, policies that promote certain technologies at higher cost, or force consumers to pay higher prices for energy, should not be supported.
- The setting of near term caps and medium term targets can have an impact on existing assets. For example, an overly stringent approach could risk existing capacity exiting the industry prematurely and put reliability of supply at risk if lower emission generation has not yet replaced it. On the other hand, very flexible or overly weak targets and caps may signal high emission generation to stay on line for longer than desirable from the perspective of achieving an optimal reduction in emission .
- Electricity consumption, or demand, could also be affected, both its overall level and its composition. Very stringent caps and targets will force electricity prices up, thereby dampening consumption or distorting its direction, but could also encourage consumers to use electricity more efficiently.
- Electricity retailers could also be expected to respond to those targets and caps that are set. For example, they may be encouraged to offer more efficient ways for consumers to use electricity. This may be important to SMEs, who do not usually have ready access to experts in energy efficiency and who could use such opportunities to help them overcome the higher costs they have experienced.

For gas, the following could be important:

- As with electricity, the setting of caps and targets and the certainty that they provide will have an impact on future investment in gas resources. Gas exploration involves risks and production involves large capital investment, so clarity of policies, including targets and caps, and certainty for the future are significant issues. In Australia at the moment, there is also a vigorous debate about the development of gas reserves, including coal seam gas on the eastern seaboard, primarily for export as LNG. Local industry is critical of this being done to the exclusion of their needs as gas users. Given that local gas users are already experiencing problems with access to supply and price increases, the CCA should carefully consider the impact of whatever targets and caps it recommends on gas supply.
- Gas is less emission intensive than coal. Given Australia's abundant resources of gas and the fact that it is often seen as a fuel that will help our transition from current levels of carbon emissions to lower ones, the CCA will need to consider its role in helping us to meet our caps and targets. If gas is almost entirely focused on LNG exports in future and its price increases to reflect the much higher prices paid for gas overseas, then setting more stringent targets may be compromised.
- As the gas industry develops and expands in response to LNG demand, its total emissions will rise. The size of this likely expansion is of such magnitude that it could be significant in terms of our future emissions. This will need to be considered in the CCA Review.
- It has been suggested that the development of renewable energy, under the influence of generous government subsidies, is crowding out new gas generation and delaying the closure of coal-fired generation. The CCA should consider the impact of such policy interactions on its recommendations for emission caps and targets.

2.6. What if the Carbon Price is Abolished?

The current Government has a policy that includes placing a price on carbon, initially as a fixed price, but then switching to a flexible price via an emissions trading scheme from 1st July 2015. The CCA Review is being undertaken on the basis that there will be a carbon price in place. However, the Federal Opposition has clearly stated that its policy is to abolish the carbon price and replace it with a 'buyback,' whereby emissions will be purchased by the Government via a reverse auction starting with the lowest cost abatement.⁷ It supports the same emissions reduction targets as the Government.

Given that Australia faces a Federal election on 14 September, it is relevant to consider the setting of caps and targets in a post election environment of no carbon tax. Would this matter?

The use of a carbon price is not the only way that emissions can be reduced. One alternative is the scheme which the Opposition favours, others include direct regulation.

There are a number of issues that are relevant to consider in the SME context:

- With the Opposition's policy, the costs of any caps and targets would no longer rest with an explicit carbon price and its impact on higher electricity and gas prices but rather would be

⁷ See the Hon. Greg Hunt, Shadow Minister for Climate Action, Environment & Heritage, *The Coalition's Direct Action Plan on Environment and Climate Change: Incentives for Action*, Speech to the Australian National University Crawford School of Public Policy, Canberra, 18th April 2013.

funded by the Commonwealth budget. SMEs would therefore see lower electricity and gas prices.

- Noting the Federal Opposition is also finding budget savings by dismantling a range of current mitigation programs and agencies.
- The Opposition's policy, like the Government's, is aimed at finding least cost carbon abatement.

3. Promoting SME Interests to the CCA Caps and Targets Review

This section considers how, for each of their highest priority issues, SME interests can best be promoted to the CCA's Review of Caps and Targets for each of the Review's main issues. In doing so, it considers the CCA Issues Paper and the foregoing discussion of it. The economic interests of SMEs provide the section's anchor point.

3.1. Setting the Targets

The following would promote the interests of SMEs in relation to setting the target for Australia's carbon emission reductions:

- Supporting targets set on the basis of economic responsibility and that they do the least damage to business, especially SMEs. This means that targets ought to be set in an economic context first and foremost. The other key factors mentioned in the Issues Paper, such as global budgets, international action and sharing global emissions ought to be considered but not given prominence over Australia's domestic economic factors. This is even more important in the current environment where many SMEs are under stress and cost pressures, and given that international action is sporadic and far from certain.
- Regarding the target for 2020, provided it can be clearly established that there are no adverse impacts on growth and competitiveness, support no more than a 5 per cent reduction on Year 2000 levels given that there is no international agreement on carbon emissions, that none seems to be in prospect and that individual country actions are also uncertain and lack clarity.
- None of the Government's conditions for more ambitious 15 per cent or 25 per cent targets are yet in place. Hence, these ought to be put aside for now and considered in subsequent reviews to determine if circumstances have changed and warrant more ambitious targets. To do more now would involve unilateral action and risk possible economic damage to Australia.
- Setting of targets for years beyond 2020 is subject to significant uncertainty and risk – the CCA acknowledge this. The results of modelling are not a sufficient basis to commit to long range targets for reducing our emissions. Whilst targets may provide some apparent certainty for investors, the risks and uncertainties involved in setting a more ambitious target now means that this 'certainty' will itself be susceptible to forced changes to a moveable target. To the extent that more stringent targets are recommended by the CCA, their risks and uncertainties must be considered and made fully transparent.
- The target of an 80 per cent reduction in emissions by 2050 ought to be viewed as an aspiration only and should be adjustable over time as circumstances change. This should be made clear to all parties. It is far too distant into the future to be taken as firm.
- SMEs should support reliance on policies to give effect to targets which are based on achieving least cost abatement. Inferior policies which involve higher costs, such as the renewable energy subsidies, should not be relied upon and should be phased out.

3.2. Setting the Trajectory

The following would promote the interests of SMEs in relation to setting the trajectory for Australia's carbon emission reductions:

- The trajectory should be set on the same basis as the target (see previous section).
- A trajectory which is consistent with the target for 2020 emissions and is also with a non-firm longer term target.
- Improved measurement of emissions in uncovered sectors of the economy so there is greater certainty that covered sectors are not bearing a disproportionate burden.

3.3. Setting the Caps

The following would promote the interests of SMEs in relation to setting the caps for Australia's carbon emission reductions:

- Annual caps should be set so that they are consistent with the target and trajectory to which they relate.
- Caps should be set so that covered sectors are only responsible for delivering emission reductions that are commensurate with their contribution to total emissions.
- Consideration should be given to adding a counter-cyclical dimension to the caps, such that they can be adjusted up or down to reflect the prevailing state of the economy. That is, if economic conditions are weak, caps would be loosened and tightened again once the economy improved. This would ensure that emission reductions better reflect the ability of the economy to bear their costs.

3.4. Energy Prices

The following would promote the interests of SMEs in relation to the impact on energy prices of the caps and targets set for Australia's carbon emission reductions:

- Caps and targets should be set so as to minimise their impact on electricity and gas price increases. Electricity and gas prices are an important cost to SMEs and have already increased substantially in recent years, with further increases considered likely, such that they are now considered to be one of the most important issues affecting SMEs. The setting of caps and targets needs to recognise this and give it significant weight.
- They should also be set recognising that firm and clear international agreement on emission reductions has not yet been achieved and there are currently few indications that this will change in the foreseeable future. In the meantime, Australia should limit the extent of its commitments to reduce emissions so that it is not ahead of international actions. In short, Australia should move with the pack rather than lead it.
- Policies to support our caps and targets should also minimise electricity and gas cost increases and avoid distorting technological and investment decisions in energy.

- A policy which seeks to find the least cost forms of carbon abatement within an economically responsible cap seems best equipped to deliver the above objectives.
- Renewable energy subsidies and other interventions, such as energy efficiency targets, are poorly placed to do so and should be avoided or phased out where they already exist. They increase energy costs above the minimum necessary to deliver a certain level of abatement and can also conflict with a more broad based policy approach.

3.5. Energy Supply Issues

Energy supply issues are of significance to SMEs, especially ensuring a secure and reliable supply, the investment to deliver this and do so at the lowest possible cost. Maintaining a competitive supply chain (production and retailing), and ensuring it is well regulated where monopolies continue to exist (transmission and distribution), are also important energy supply issues. The following would promote the interests of SMEs in relation to the energy supply aspects of the caps and targets set for Australia's carbon emission reductions:

- Caps and targets that ensure that the continuation of a secure and reliable supply of energy is not put at risk. This needs to be considered in the level of ambition built into Australia's targets and its annual caps. Issues such as the rate at which new (lower emission) capacity can be built, its reliability and its cost are important to SMEs.
- Caps and targets that ensure that investment in energy supply continues to be made at a rate that matches demand plus reliability standards is also a significant matter for analysis and understanding. This is not just a matter of the level of ambition but also of considering the extent to which targets can realistically be achieved, as well as providing practically based predictability and certainty in setting them, including to investors, financiers and energy users. There are a complex range of factors that need to be considered here and the risks of error involve high costs – economic, social and political.
- Australia has built its energy markets around reforms focused on competition in the supply chain, where possible, or effective regulation of monopolies, where it is not. These reforms are intended to deliver outcomes that benefit consumers and the economy. Our caps and targets for emissions need to recognise this and not compromise it. Caps and targets, the way they are set and the policies needed to support them should be consistent with maintaining energy market competition and well regulated energy monopolies. Indeed, if energy markets are not competitive, not well regulated and not focused on delivering beneficial outcomes to consumers, prices in these markets will be higher than they should be. If energy markets are exhibiting price stress, as has been the case in recent years, this will make the task of delivering emission targets more difficult. Energy consumers will be reluctant to pay higher prices. This point was well recognised in the Garnaut Climate Change Review Update. It outlines that the shortcomings in the regulation of energy network monopolies have given rise to much higher energy prices and highlighted this as in need of attention from governments.

3.6.SME Business Issues

SMEs see a range of broader economic issues as important to the health of their businesses, which may be impacted by targets and caps. These include:

- A stable and predictable macro-economic environment that is conducive to supporting economic growth and improved welfare. This includes growth, budgetary settings, taxation, interest rates and the exchange rate.
- Regulation that limits the 'red' and 'green' tape burden that is placed on SMEs.

It would be beneficial to SMEs if the CCA's Caps and Target Review considered the impact which its recommendations will have in the context of these broader economic settings for SMEs. In particular that it:

- Does not worsen macro-economic settings and outcomes.
- Does not worsen budgetary outcomes.
- Does not impose additional taxes on SMEs.
- Does not result in higher interest rates.
- Helps to maintain a balanced exchange rate.
- Does not increase the 'red' and 'green' tape burden on SMEs.

3.7.CCA Modelling

The CCA proposes to use a range of modelling to help it understand the economic and social impacts of different caps and targets. In particular it will:

"... project what the economy will look like with the minimum 5 per cent emissions reduction target, and assess how it might change with the choice of a more ambitious 2020 target." (Issues Paper, p. 30)

The modelling to be used involves:

- The use of two top-down general equilibrium models, one global and one domestic, the latter of which produces outputs across states and territories for 58 industry groupings. These are the same models used by Treasury in their analysis for the *Clean Energy Future* package but updated to take account of recent developments and new data. We understand that CCA will specify the scenarios to be modelled under an MoU with Treasury.
- The use of detailed models covering the electricity, transport and agricultural sectors. These sectors produce around 54 per cent of Australia's emissions.

The use of modelling as part of the CCA's Review is supportable in the sense that the results can help decision-makers, in this case the CCA and the Federal Government, to better understand the possible consequences of their decisions, especially their economic impacts. Supplementing this with detailed sectoral models is also supportable as this allows more detailed conclusions to be reached on sectoral outcomes of special importance, in this case in three sectors where emissions

are significant. These sectors, in the context of this report especially electricity, are also important as an input to SMEs.

It should also be noted that the models have been previously used to examine the impacts of various climate change policies, e.g. Treasury's modelling for the *Clean Energy Future* package, various other government and private sector analysis.

However, SMEs should be cautious in how they view this modelling. In particular, the results will be heavily reliant on a range of factors such as the following:

- The architecture of the models and the assumptions behind them. In particular, the use of the Treasury models may be a cause for some concern as they are associated with the development of the Government's climate change policies and were subject to some criticism. As an independent body, the CCA should seek to avoid any controversy that could be associated with their use.
- The assumptions used in the models and the sensitivity of the results to changes in them.
- The scenarios chosen for modelling and their sensitivity to changes in key assumptions.
- The veracity of the data used as input to the models and its ability to withstand scrutiny.
- The consistency between and compatibility of the various models used – both the two general equilibrium models and between them and the sectoral models.
- Avoiding the risks of creating self-fulfilling prophecies. For example, it is not enough to compare the CCA's modelling results with those undertaken by Treasury and declare that they are similar and therefore must be a reasonable basis for decision-making. More rigour is needed to establish this fact.

The CCA should ensure that its modelling is cognisant of the points above and report on this.

A number of points about the CCA's proposed modelling are worth mentioning based on the contents of the Issues Paper and the separate set of papers on the modelling released by the Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education (DIICCS RTE):⁸

- There is no attempt to model the impacts on the gas sector, which is a significant source of energy in Australia, is likely to see increases its absolute level of emissions over time due to greater production of gas for export and power generation, and is a covered sector. This is notwithstanding that models of the gas sector exist and are widely used.
- A number of key parameters used in the electricity model are sourced from the Treasury, including electricity demand growth rates, international fuel prices, metals prices and labour costs and the exchange rate. However, it is not clear from the documentation what expertise Treasury has in relation to electricity demand and international fuel prices, or whether these forecasts are themselves based on information from outside experts? The forecasts of electricity demand are made more problematic by recent marked changes in

⁸ See DIICCS RTE, *Consultation on the assumptions that underpin Australia's greenhouse gas emissions projections*, ACIL Tasman, *Assumptions paper: PowerMark LT and RECMARK modelling of the Australian electricity generation sector*, 8 April 2013, CSIRO, *Transport Modelling Assumptions Paper*, March 2013 and Centre for International Economics, *Agricultural emissions projections: Modelling assumptions and sources*, April 2013. All published on the DIICCS RTE web site.

what was previously a long period of sustained growth in demand that has now become a downturn. It is an open question as to how long this will last but it will be an important matter to consider in the modelling for the Review (as the CCA propose to do).

- As sent out electricity, rather than demand, is used in the electricity model, demand growth is adjusted to take account of the growth in roof-top solar installations with embedded generation held constant. However, growth in solar is subject to significant uncertainty and should be subject to sensitivity testing, whilst it seems unrealistic to hold embedded generation constant, particularly in the context of tighter caps on emissions.
- The energy values used as inputs to the electricity model also need to consider the recent fundamental changes in growth of both energy consumption and peak demand. These are still being subjected to analysis to determine their causes and to what extent they will persist. We note that official projections of energy growth for the remainder of this decade have already been revised downwards significantly but still remain well above recent trends.
- The representation of generation plant as a combination of multiple band offers, reflecting the market floor price for minimum generation of thermal plant, short-run marginal cost (SRMC) for contracted capacity and a multiple of SRMC for uncontracted capacity is an approximation to the, more complex, actual operation of the market. This needs to be kept in mind and should be considered in interpreting the results.
- The electricity modelling does not appear to include any assessment of using nuclear power to help reduce carbon emissions? This is notwithstanding that nuclear is a mature low emission generation technology. Even though current policy precludes the use of nuclear power in Australia, modelling of its use could help to shed light on the most economic approaches to setting Australia's targets and caps.
- The modelling of sectors other than electricity, transport and agriculture, is to be undertaken using information from various public sources and based on "in-house" modelling. However, there is little specification or detail provided about these models or their assumptions. This is notwithstanding that some 40 per cent of Australia's emissions are uncovered. DIICSRTE needs to provide additional information that will improve the transparency of its approach and models. The CCA needs to consider what it can do to go beyond the current limited sectoral approach, noting that it has said that future reviews could do this as data improves and coverage increases.

At this stage only information about the models to be used and their assumptions have been released for comment. It may be that the CCA intends that results will only be made available in its draft report? It would be preferable if results could be exposed to public scrutiny before the draft report is released. The CCA has recently indicated to a Senate Estimates hearing that it acknowledges the need for public scrutiny and transparency in its modelling and will be releasing all relevant material, including assumptions used as inputs and the results of all model runs used to frame its draft recommendations. This openness is to be welcomed.

4. Other Review Issues

This section discusses a number of other matters raised in the CCA's Issues Paper that are relevant to SME interests but have not been specifically raised previously in this report.

4.1. Global Emissions Budgets

The Issues Paper describes a global emissions budget as:

"A global emissions budget is a level of cumulative emissions to give the world a certain probability of remaining within a chosen temperature limit. For any given global temperature goal, the associated budget illustrates how much of the world's emissions quota has been used and how much remains. In turn, this informs future actions; the more of the quota that is spent now, the less remains for future use." (Issues Paper, p. 17)

It goes on to say that:

"The later emissions peak, the faster emissions need to be reduced in the future. If more rapid reductions require abrupt and disruptive economic and social change, there may be a limit to the set of feasible trajectories." (Issues Paper, p. 17)

And that:

"The relationship between global emissions budgets and temperature outcomes is complex and there are a number of sources of uncertainty." (Issues Paper, p.18)

There are a number of important issues here for SMEs and business more broadly:

- Taking the IPCC climate science as a point of reference, for any given temperature limit, the later emissions peak the faster the rate of reduction needed in future and this may be associated with more economic and social disruption which could place a limit on future mitigation possibilities.
- This, however, ignores the role that adaptation might play in adjustment to climate change, which is a matter the CCA should consider.
- Accepting the CCA's position on global budgets also fails to deal with the fact that there is presently no global agreement for reducing emissions and there are still obstacles to one emerging. Australia setting emissions reduction targets within what would be a hypothetical global emissions budget would serve little purpose but may impose economic costs.
- The Authority has also recognised that there is a complex relationship between global emissions budgets and temperature controls with uncertainty present. This adds to the difficulty and the risks of setting Australia's target within a global emissions budget.

Overall, it would not seem to be in the interests of SMEs to support the adoption by Australia of any global emissions budget within which to set our target for emissions reductions at this time. To do so would ignore the lack of international agreement, as well as the complexities and uncertainties involved.

4.2. International Action

The Issues Paper discusses various aspects of international action that the CCA will need to consider in recommending caps and targets for Australia. A number of these are commented on below in the context of promoting the interests of SMEs:

- The Authority acknowledges that the international context is relevant to how Australia's economy will change over time and that it affects its competitiveness. It then suggests that competitiveness concerns are addressed "through a number of industry assistance mechanisms, and the Productivity Commission conducts periodic reviews of this assistance." (Issues Paper, p. 18) For SMEs, especially those operating in international markets, competitiveness impacts are of paramount importance. The absence of international agreement is a serious issue for them. Moreover, it is worth noting that SMEs are not recipients of the assistance provided under the carbon pricing mechanism.
- The CCA Issues Paper states that "it is action that is paramount, not its legal form, nor where it is captured (for example, whether it appears in domestic legislation or a new international agreement)." (Issues Paper, p. 18) This comment needs to also consider the considerable difficulties in aggregating individual actions, determining their consistency and continuity, tracking progress and the risk that individual nations' positions will change over time. To not do so would be risky for SMEs and business more broadly.
- The Authority proposes to assess the level of global climate change action towards a 2 degree or lower global goal in making its recommendations. However, as it points out, there are a range of uncertainties involved: data and measurement constraints between countries; differences in the way that individual countries' goals are expressed; and differences between countries. These problems appear to be confirmed by the list of policies and measures for a number of countries set out in Table 2 of the Issues Paper. The Authority needs to overcome these problems if it is to produce robust data on international actions upon which to base its recommendations. SMEs interests would not be protected unless the Authority did so.
- The CCA proposes to make cross-country comparisons of emissions using a number of metrics: changes in absolute emissions; changes in emissions intensity; deviations from business-as-usual emissions trends; and changes in *per capita* emissions. These are all commonly accepted ways to measure a country's emissions but each has a different purpose, as the CCA recognises, and may provide widely varying results. For example, Australia is a low emitter in terms of its absolute level of emissions but a relatively high one in *per capita* terms. The interests of countries, industries, firms or special interest groups can also play a role in which metric they favour. Given that the solutions to global climate change require cuts in the absolute level of emissions over time, the use of this metric must play an important part in the CCA's work.
- The Authority also discusses the question of how Australia's actions can influence others as relevant to its consideration of international action. If actions by Australia had a strong influence on those of others, then their justification would be more obvious. However, if our actions had little or no impact on those of others, their justification would diminish. We are not aware of any evidence, other than of a circumstantial or limited kind, that Australia's

actions on climate change have demonstrably influenced those of other countries. In our view, it would take broad international action, or at least collective action by the World's major emitters, to exert meaningful influence. The evidence that Australia's actions on climate change have influenced others to take action should to be clear and concrete before it is used to support additional action by us.

4.3. Sharing Global Emissions Budgets

In its Issues Paper, the Authority says that it will consider the main principles and approaches to sharing global emission budgets and the economic and social implications for Australia. It is seeking views on how Australia might approach determining its "fair and defensible share" of a global emissions budget.

Considering the interests of SMEs give rise to the following comments:

- There is no formal global emissions budget at present so the consideration of principals and approaches to sharing in such a budget is problematic. It is difficult to know how Australia could make informed decisions and choices about principals and approaches to sharing in a global emission budget without knowing with certainty what other nations will do. As the Issues Paper notes:

"Different approaches embody different views on which principles are most important and how to give effect to those principles. These choices can have a significant effect on the final result. For example, approaches based on the principle of responsibility must choose the starting point for counting emissions. Counting emissions from pre-industrial times gives a very different result to counting emissions since 1990 or from the present day". (Issues Paper, p. 26)

- Table 4 of the Issues Paper sets out a number of different approaches to sharing and sets out some of the advantages and disadvantages of each. This information highlights some of the complexity, conflicts and tension inherent in choosing between approaches.
- The CCA needs to make decisions on the sharing of global emissions budget on an informed basis. It should highlight areas of risk and uncertainty and do so in a way that safeguards Australia's interests, including the interests of SMEs.

SME interests would be best served by not supporting a sharing of global emission budgets at this time given the risks and uncertainties inherent in making choices about this, combined with the absence of any agreement on this area let alone any formal global budget. Their interests would be best served by the Authority setting a target based on no more than Australia's unconditional target for 2020.

4.4. Uncovered Emissions

The Issues Paper says that the CCA will need to estimate Australia's uncovered emissions (i.e. emissions for sectors not covered by the carbon price) and that it intends to do this through its modelling. Uncovered emissions are estimated to make up around 40 per cent of our total

emissions. They are also included in the target for emissions in 2020 and beyond but not in the caps. The accuracy of measuring uncovered emissions is problematic and subject to uncertainty which can affect how, when and whether Australia meets its target.

The following points would promote the interests of SMEs in relation to how the Review should treat uncovered emissions:

- If Australia does not meet its target in the next period, then it should consider using its carry-over from the first Kyoto period to cover any shortfall. The impacts of not doing so on growth and competitiveness and the many uncertainties associated with setting caps and targets could make this the best option.
- The Issues Paper suggests that the uncertainty inherent in estimating uncovered emissions could be managed by setting the first five year caps conservatively, that is, tighter so that a buffer against higher emissions is created. However, this would come at an economic cost partly resulting from higher carbon and energy prices. For business, it is important for caps to be set so as to avoid such damage. SME's interests would be better served if the caps were set in a way that minimises their potential for economic harm in the first period, that is, by setting them no higher than minimum levels.

4.5. Australia's Progress in Reducing Emissions

The Authority will consider Australia's progress in reducing emissions as part of its Review. It will look both backwards and forwards, seeking to understand key drivers for past performance and establish a framework for evaluating progress beyond 2020. However, it is not able to assess every sector in detail, but instead will focus, at a minimum, on progress in the electricity sector. The CCA also says that:

"A primary objective is to identify opportunities and risks to help ensure Australia meets its targets in an environmentally effective, economically efficient and equitable way." (Issues Paper, p. 35)

This objective fails to explicitly say that competitiveness will be considered, though this might fall within the words "economically efficient". For SMEs and business it would be better if the consideration of competitiveness was made explicit.

The CCA will report on progress against its recommended 2020 target and against the long term 2050 target. It was argued earlier in this report that the CCA should recommend no more than the existing target of a 5 per cent reduction in 2000 emissions by 2020 given the absence of international agreement and limited probability that one will emerge in the foreseeable future. Our view is therefore that the Authority should also use no more than the 5 per cent target to report on progress.

4.5.1. Past Emissions

The Issues Paper comments that the CCA will examine trends in emissions over time to seek to understand these and the drivers behind them. It particularly mentions changes in electricity demand and the emissions intensity of the economy. In doing so it should consider:

- The recent downturn in electricity demand and the reasons behind this.
- Whether this is likely to persist and for how long, noting that AEMO has substantially revised downwards its forecast growth rates (energy and demand) for the remainder of this decade. It should also consider that AEMO's forecasts remain substantially higher than recent trends and that the track record of forecasting electricity growth has been quite variable.
- That there are a variety of explanations being put forward for the recent trend of reductions in electricity demand, including substantial electricity price increases, other cost pressures facing business, the GFC and its aftermath, the high dollar, a decline in manufacturing and improved energy use efficiency (internal and policy driven). The future direction of gas prices should also be examined as this has significant and growing links to electricity demand. The Authority will need to carefully examine these factors and consider the extent to which each might explain recent trends in electricity demand and whether the impact is short term or longer term. This is likely to be a complex and contentious task.
- Similar issues apply to changes in emissions intensity. In addition, it should be pointed out that the high Australian dollar, the broad-based decline in our manufacturing (driven by the dollar position, high and rising input costs, including energy and carbon, low productivity, etc) have been significant contributors to this and are presumably a major reason behind the decline in emissions in Australia in four out of the six years to 2012 (see Issues Paper, Figure 8, p. 36 and Figure 1 in this report). The now widely anticipated subsidence of the mining boom will presumably also reduce emissions growth below business-as-usual.

4.5.2. Future Emissions

- The Authority discusses future progress and points out that projections depend on a wide range of assumptions, including about future global action, economic activity, investment in lower emissions technology and the extent of voluntary action. It will draw on modelling and other analysis to assess this. Key issues relate to the assumptions it uses and how it deals with the myriad of uncertainties and unknowns. For example, technological progress is a key issue in addressing climate change, but what may look like front-runner technologies today may fall by the weigh side, technologies that are not even known about today may end up playing a leading role, or technological change may not be as rapid as we think causing difficulties in meeting targets. The extent of these uncertainties should not be underestimated and making projections or setting targets based on them, especially those further out in time, are fraught with potential problems.
- Moreover, the Authority proposes to identify strategic milestones based on this work and assess if current policy settings are sufficient to deliver those emissions reductions. However, the Authority has said that it does not intend to specify prescriptively what must

happen in each sector, noting that emissions reductions may come from unanticipated sources. It prefers to “identify key markers”. This appears to be sensible.

- The Authority intends to identify milestones for different sectors of the economy and in this Review will consider, at a minimum, milestones for the electricity sector. While future progress would need to be assessed on a sectoral basis, the setting of milestones, even at this level, is still subject to considerable uncertainty especially further out in time when unknowns become more significant. If milestones are too ambitious they may simply not be attainable, if they are too lenient they may be so easily reached that they present no challenge. Also, it is not clear from the Issues Paper what will happen if milestones are not reached? The electricity sector is an obvious candidate for the setting of initial sectoral milestones, given it contributes the largest share to emissions of any sector and its emissions have grown the most over the past two decades. However, this is historical not future information and the Authority should consider the sector’s likely contribution to emissions in future as well as the likely future emissions from other sectors before settling this matter.
- The Authority says that it will explore the linkages between the domestic carbon price and international carbon markets in the longer term in assessing future progress. However, the uncertainties about carbon pricing in this country and abroad, which only increase over time, will make this assessment difficult.
- The assessment of future emissions is a highly problematic exercise and CCA needs to take a cautious approach. It should eschew adopting particular methods, approaches and recommendations, especially where they are highly specified and very long term.

5. Conclusions

The CCA's Caps and Targets Review will have potentially important ramifications for SMEs and business. Although the implementation of emissions caps will not commence until 2015, when Australia enters the flexible price phase of its carbon pricing mechanism, the Authority will recommend targets for reductions in our emissions that extend to 2020 and possibly beyond that to 2050. Under current Government's policy, these caps and targets will have a major bearing on the price of carbon well into the future, which will flow through into electricity and gas prices, as well as other input costs. They will also influence other aspects of energy supply that impact on SMEs, including reliability and security of supply, investment, technological change, the efficiency of energy use, demand trends and energy retailer actions. It is therefore important that the Authority makes recommendations to the Federal Government that reflect these impacts, and that it fully considers the impacts of its recommendations on business, including SMEs.

This report has found that SME interests would be best served if the CCA Review is conducted in a manner which emphasises economic factors in setting caps and targets. It has also found that the lack of international agreement on caps and targets, the uncertainties still associated both with the commitments made by countries to reduce emissions and their mechanisms to do this, and the risks and uncertainties that surround many of the issues the CCA needs to consider in framing its recommendations, mean that it should take an economically cautious and conservative approach to recommending caps and targets in this, its first review. This applies to both medium and longer term targets. Australia should move with the pack rather than lead it in setting caps and targets. In addition, some of these risks and uncertainties, particularly international ones, may become clearer in the years ahead, providing a better basis to make decisions on caps and targets in future reviews.

A major concern for SMEs is that setting ambitious targets now in the face of this risk and uncertainty will cause economic harm, in particular forcing electricity and gas prices higher. As is pointed out in the report, SMEs have limited capacity to pass or absorb on such costs increases and their profitability will suffer. Where firms are exposed to export markets or competition from imports, especially from countries that have no, or a lower, carbon price than ours, their position is even more difficult.

There is now a significantly increased policy focus on SMEs based around the view that they have very good prospects to stimulate economic growth, employment and innovation, if provided with supportive policy settings. ACCI's "**Small Business .Too Big to Ignore**" campaign is consistent with this. Climate change policy and the setting of emissions caps and targets should also take this into account and set policies that do not stymie SMEs, including with respect to electricity and gas prices, and their energy sector impacts.

Our recommendations to ACCI are set out at the beginning of the report (see table of Contents).