**COMMUNICATIONS
ALLIANCE LTD**

CARBON POLLUTION REDUCTION SCHEME
GREEN PAPER

Submission

September 2008

TABLE OF CONTENTS

COMMUNICATIONS ALLIANCE

Communications Alliance welcomes the opportunity to make a submission to the Australian Government on the Carbon Pollution Reduction Scheme Green Paper.

Communications Alliance is the peak communications industry body in Australia. Its membership is drawn from a wide cross-section of the communications industry, including service providers, vendors, consultants and suppliers as well as business and consumer groups.

Our vision is to provide a unified voice for the communications industry and to lead it into the next generation of converging networks, technologies and services. The prime mission of Communications Alliance is to promote the growth of the Australian information and communications technology industry and the protection of consumer interests by fostering the highest standards of business ethics and behavior through industry self-governance.

Communications Alliance believes it is in the best interests of all participants, customers and government that the industry takes responsibility for devising practical, self-imposed solutions that are developed by co-operative processes.

In doing so, Communications Alliance seeks to facilitate open, effective and ethical competition while ensuring efficient, safe operation of networks, the provision of innovative services and the enhancement of consumer outcomes.

1. Introduction

A global consensus is developing that there needs to be a move towards a carbon constrained future. Despite the ICT industry in Australia being a comparatively low carbon emitter, it has tremendous potential to be one of the major facilitators in reducing carbon emissions across the economy.

In principle, we support the establishment of an Emissions Trading Scheme and welcome the Australian Government's focus on achieving an economically viable solution. We believe the success of the Carbon Pollution Reduction Scheme (the Scheme) will partly depend on the ability to exploit the opportunities that developments in ICT offer in the area of carbon abatement.

Australia is a comparatively small country when it comes to our contribution to overall green house gas emissions. However, we are one of the largest per capita emitters in the OECD (28 Tonnes CO_2 equivalent per person[1]). Therefore the challenge of reducing these emissions to 60 per cent below 2000 levels by 2050 is significant.

International cooperation and buy-in will be essential to ensure that Australian businesses are not disadvantaged by the introduction of the scheme. Ensuring the strength of Australian international competitiveness across all industries is critical to the health of the Australian economy and should be a fundamental priority.

Communications Alliance is concerned that targeted concessions and assistance to a relatively small number of emission-intensive trade-exposed businesses and strongly affected industries will have the effect of passing on substantial costs to other sections of the economy. Such additional cost burdens on the ICT industry may have the unintended consequence of restricting ICT investments that have real carbon offset benefits across the economy.

> The ICT industry will have an important role to play in the success of the Scheme and in the achievement of any greenhouse gas emissions targets set under the Scheme.

2. Consultation is Key

There is no doubt that the Scheme will have profound effects on the nation and the economy as a whole. This kind of important economic and environmental policy requires extensive consultation – not just with the big emitters but also with other industries that will be affected by the proposal.

It is important to note that the ICT industry has not been included in the debate so far despite offering tremendous leverage to reduce emissions right across the economy. The potential benefits are real and should be taken advantage of.

> We submit that the ICT industry should be more directly involved in the consultations surrounding the introduction of the Carbon Pollution Reduction Scheme and have a seat at the table to assist the Government in formulating innovative responses to the climate change challenge.

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[1] *Tracking to the Kyoto Target 2007: Australia's Greenhouse Emissions Trends 1990 to 1008-1012 and 2020*, Australian Government, Department of Climate Change, 2008.

3. The ICT Industry and Climate Change

A Low Emitter

The global ICT industry accounts for approximately two per cent of global CO_2 emissions[2]. In Australia, a recent survey indicated that ICT use is responsible for about 1.4 per cent of national emissions.[3]

As networks expand, broadband penetration becomes ubiquitous and new technologies evolve, energy consumption and emissions may increase. However, we would argue that the potential offsets and benefits to the environment of developments in ICT will far outweigh any additional detriment attributed to expansion of networks and ICT infrastructure. Further, developments in technology mean that networks and devices can do more and do it faster. As a result, significant energy consumption reductions are now being realised. Therefore, the impact on the environment of the expansion of the ICT industry may be negligible in the longer term.

The 2007 Climate Risk Report, *Towards a High- Bandwidth Low-Carbon Future*: *Telecommunications-based Opportunities to Reduce Greenhouse Gas Emissions*[4] (the Report), stated that:

> *The assumption that the use and extensive growth of ICT networks gives rise to major increase in energy consumption is not valid.*[5]

The potential benefits for energy consumption are not limited to the ICT sector, but rather extend to the economy as a whole. The Climate Risk Report further argues that:

> *Information Communications Technology appears to have been causing significant decreases in the energy intensity of economic activity across the wider economy.*[6]

The Report concludes that the environmental impact of the expected growth in ICT industry will be 'dwarfed' by the potential benefits that may flow from development of ICT technologies.[7]

> The ICT industry is a relatively low carbon emitter and there is significant potential to utilise developments in ICT to reduce energy consumption and emissions across the entire economy.

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[2] *Gartner Estimates ICT Industry Accounts for 2% of Global CO_2 Emissions*, Gartner, 2007, www.gartner.com/it/page.jsp?id=503867

[3] *Policy Statement on Green ICT*, Published by the Australian Computer Society, 2007, www.acs.org.au/acs_policies/docs/2007/greenictpolicy.pdf

[4] *Towards a High-Bandwidth, Low-Carbon Future: Telecommunications-based Opportunities to Reduce Greenhouse Gas Emissions* (published October 2007) is a study commissioned by Telstra and prepared by climate change experts, Climate Risk Pty Ltd. The Report was peer-reviewed by independent experts WWF Australia's Chief Executive Officer, Greg Bourne, and leading Australian energy and environmental authority, Dr Hugh Saddler.

[5] *ibid,* page 16

[6] *ibid,* page 11

[7] *ibid*, page 17

What are we doing now?

Despite comparatively low emissions, the Industry is moving to reduce its carbon footprint. This means reducing carbon emissions, maximizing resource reuse and recovery and assisting customers manage their own carbon footprints with technology.

Some of the initiatives implemented by some of our members include:

- Carrier co-location of base stations.
- Development of high temperature batteries to reduce reliance upon air conditioning in base stations.
- Compression of transmission - advanced compression technology means more traffic can be carried using the same amount of energy.
- Availability of fibre broadband equipment that has been environmentally hardened to eradicate air conditioning/heat exchangers.
- Introduction of 'sleep mode' for mobile base stations, which go on standby when traffic demand drops.
- Availability of small micro-Radio Base Station solutions with very low power requirements - suitable for small sites such as in hilly areas.
- Availability of Radio Base Station products that have the radio units placed close to the antennas, which reduces feeder cable loss and makes natural convection cooling possible. The reduction in energy consumption is significant, primarily for the base station equipment but also for the mobile terminals/phones used in the network.
- Where appropriate, mobile sites today can be solar powered, and there is ongoing R&D to further support alternative energy sources to power sites, such as wind, solar and biofuels.
- Introduction of flexible work practices – encouraging people to work from home to help reduce carbon footprints by removing the need to travel to work.
- Encouragement of widespread availability and use of tele-conferencing and video conferencing to reduce reliance on air travel

> The industry has already begun on the journey to a low carbon future with implementation of initiatives to reduce energy reliance and carbon emissions.

What can we offer?

Although ICT is only one part of a much broader solution, we believe that the success of the Scheme will partly depend on the ability of the whole economy to utilise ICT to find innovative ways to reduce carbon emissions.

The Climate Risk Report found that taking advantage of a few identified carbon abatement opportunities using ICT that exist now could reduce Australia's total national Greenhouse emissions by nearly 5 per cent.[8] This potential contribution is significant.

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[8] *ibid,* page 60

The seven carbon-opportunities identified in the report are:

1. **Remote appliance power management** – identification and elimination of standby power wastage

2. **Presence-based power** – enable user-focused energy consumption where proximity activates devices

3. **De-centralised business district** – in a broadband enable world the capacity for people to work from home and not have to travel to and from work will significantly reduce emissions

4. **Personalised public transport** – an integrated network of transport modes with faster speeds, door to door service, high flexibility and lower costs.

5. **Real-time freight management** – networks to monitor vehicles and loads to ensure no empty trips.

6. **Increased renewable energy** – broadband to monitor and facilitate the management of heating and cooling and other loads.

7. **High definition video conferencing** – large scale reduction in air and other travel leading to significant reductions in emissions.[9]

This list is a start and is not meant to be exhaustive. It demonstrates the considerable contribution that the ICT industry can make to reduce Australia's greenhouse emissions and help the nation move to a more environmentally responsible carbon constrained future.

> The ICT industry has a lot to offer in facilitating economy wide emission reductions. The Government must work with industry to take advantage of the opportunities and harness the benefits of ICT to reduce emissions.

Low-emissions technologies

There is no doubt that adequate investment in low-emissions technologies will be integral to the success of the climate change strategy. Lack of such investment could cause considerable damage to the Australian economy. This view is argued strongly by the Australian Academy of Technological Sciences and Engineering in their response to the Garnaut Interim Report.[10]

Communications Alliance acknowledges the Australian Government initiatives in this area such as the *Climate Change Action Fund*, *Low Emissions Technology Demonstration Fund* and the *Renewable Energy Development Initiative*.

However, we are concerned that the focus of these initiatives has been on electricity generation and transport. We submit that the government should provide support through these mechanisms to unlock the potential benefits of development of low-emissions technologies through the ICT industry. The ICT industry offers technologies that bypass sources of emissions by eliminating energy intensive activities altogether.

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[9] *ibid*, page 21-23
[10] *Emissions Trading Needs Technology Investment*, Media Release, April 2008, Australian Academy of Technological Sciences and Engineering, www.atse.org.au/index.php?sectionid=1150

This support could include funding of capital investment in new technologies that reduce emissions (including research and development) and tax incentives to encourage innovation.

> Communications Alliance encourages the Australian Government to support the development of low-emissions technologies through the ICT industry.

4. Starting from a position of disadvantage

We submit that targeted exemptions and special arrangements on emission-intensive trade-exposed and strongly affected industries could concentrate the costs of the introduction of the Scheme to other sections of the economy such as the ICT industry. This could have the perverse outcome of rendering some of the best and innovative emission reduction solutions less economically attractive than they otherwise would be.

There are substantial potential benefits to the wider economy of utilising ICT to reduce carbon emissions. We submit that the ICT industry should not be disproportionately disadvantaged by other industries receiving favourable treatment – just because they are heavy emitters.

We acknowledge that emission-intensive trade-exposed businesses and strongly affected industries will need assistance so that they can compete internationally. Potential carbon leakage is a significant threat to the economy and early assistance will be critical. However, we would argue that nearly all industries are "trade exposed" in Australia. In the highly competitive world of communications, where margins are increasingly shrinking and competitors are being squeezed out, it seems unreasonable that relatively low emission industries such as the ICT industry should bear the burden of the cost for the larger emitters.

There is also a very real danger that cost creep could occur as protected industries seek further concessions and other industries successfully lobby to be included in the assistance scheme. Costs could be further shifted to those industries with relatively low carbon emissions. The realisation of this scenario would undermine the foundations of the Scheme and the Government's Climate Change Strategy.

Fundamentally, a move to create a protectionist regime for a small proportion of the highest polluters disadvantages competitively the rest of the economy. The Green Paper acknowledges that the result of implementing the policy as it stands would "impose a greater adjustment burden on the rest of the economy".

Although we acknowledge that assistance should probably be provided to emission-intensive trade-exposed businesses and strongly affected industries, we do not believe that the case for confining assistance measures to these most highly affected industries alone has been adequately made.

Communications Alliance is not in a position to comment on the specific level of support that should be provided to different industries.

> We recommend that to avoid distortions to relative competiveness within the economy, consideration should be given to transitional measures that broaden the compensation and assistance regime to take into account the potential cost shifting to other sections of the economy that will occur under the current proposal.

5. Conclusion

The ICT industry has a lot to offer in facilitating economy wide emission reductions and will have an integral role to play in helping Australia achieve its greenhouse gas emissions targets. The Government must work more closely with the industry to take advantage of the opportunities and harness the benefits of ICT to reduce emissions.

The ICT industry is a relatively low carbon emitter and has already begun on the journey to a low carbon future with implementation of initiatives to reduce energy reliance and carbon emissions.

Communications Alliance encourages the Australian Government to support the development of low-emissions technologies through the ICT industry.

To avoid competition distortions, consideration should be given to implementing transitional assistance measures across the broader economy to take into account the substantial potential cost shifting.

The ICT industry stands ready to help Australia move towards a more environmentally responsible carbon constrained future.