Clean Energy for Eternity Submission to Garnaut Report

Professor Ross Garnaut
Climate Change Review
Garnaut Review Secretariat
Level 2, 1 Treasury Place
Melbourne 3002 VIC

Friday 14th January 2008

"The Review will examine the impacts of climate change on the Australian economy, and recommend medium to long-term policies and policy frameworks to improve the prospects for sustainable prosperity."

Dear Professor Garnaut,

I write as Public Officer of Clean Energy for Eternity (CEFE), a community-based not for profit climate change organisation that has its base in the far south coast of New South Wales.

Background

CEFE, was begun by local orthopaedic surgeon Dr Matthew Nott in 2006 – he is a surf life saver in his 'spare time' and was on duty on New Years' Day, when the thermometers in Tathra soared 6 degrees above average recorded temperatures. In response to his call to action, 3000 members of the public turned out on 21 May 2006 to write Clean Energy for Eternity along Tathra Beach. On 21 August, a large community meeting unanimously adopted targets of 50% reduction of energy and 50% clean renewable energy by 2020 in the Shire (50/50 by 2020).

Since then, a wide cross section of the Bega community, from the local council to businesses and households, has become involved and whole heartedly support CEFE efforts to make our region a **Centre of Excellence** for climate change mitigation (see Attachment 1). At the same time, this movement for inspired local action on climate change has spread horizontally around the region, so that we now have seven groups – in five local Shires (Bega, Eurobodalla, Snowy River, Cooma-Monaro and Shoalhaven) and two Sydney suburbs (Mosman and Manly) – that have formally adopted or are rapidly moving to adopt the 50/50 by 2020 targets.

Two pivotal projects for CEFE in 2008 will be:

Lifesaving Energy is a micro energy generation/awareness raising project. The community raised enough to install solar panels and wind turbine at Tathra surf club, with matching funds from the local Council. Surf LifeSaving Australia and Coastcare have just taken this project on as a national pilot and committing to install renewable energy on all 305 surf lifesaving clubs within two years.

Macro Solar Farm is designed to demonstrate the potential for community owned macro renewable energy generation. We have a commitment from the Rudd Federal government for $100,000 for a feasibility study, with a possible $1million to follow for the actual development stage (Press release Attachment 2). The aim is to demonstrate the possibility of building a 10 ha farm in Bega Shire and to inspire other local communities to follow suit.

Relevance for the Garnaut Review – Issues Paper 1 Land-Use Agriculture and Forestry

1. We all recognize that that the economy is a subset of the environment and time is critically short. Without a functioning ecosystem, a well positioned economy will not be much use. CEFE therefore urges you to call for prompt action on reducing greenhouse gas emissions.

2. The communities most actively involved in Clean Energy for Eternity are primarily rural, with regional economies heavily dependent upon agriculture, forestry and tourism for employment and income. These communities are keenly interested in learning how to rise to the challenge of mitigation and adaptation to climate change, seizing the opportunities where they arise and laying down positive pathways that can inspire others into action.

3. Communities like ours all over Australia require good science, good support, and good incentives. Your report will inform the development of policies and policy frameworks. You may wish to consider the potential to trialling various options with real communities.

4. CEFE has the benefit of an illustrious and highly experienced advisory group (Attachment 3). We are aiming to tackle climate change in a holistic and credible manner that may in time provide a valuable model for other communities across Australia. We are keen to assist.

5. Our promotion of community owned renewable energy installations may help to overcome some of the public resistance to wind farms. There are some valuable models around in which the income generated through the sale of renewable energy is distributed across the community. An example is in Ararat, where approx. $30K from a large wind farm is distributed afross various community organisations every year.

6. Action on mitigation at the landscape scale will require involvement of rural industries. Given the high figures given for Australia emissions from methane generated by ruminant livestock, emissions reduction in the dairy and cattle industries will be important. CEFE is in the very early stages of developing a dairy pilot that aims to capture methane from local dairies and convert it into a source of renewable energy (using models from Austria and the USA).

7. Adaptation is an issue that will largely be site specific. However, it will be aided by some long term investment and clear guidelines and information pathways set at the national scale.

8. It will be well worthwhile investing sufficient funds in developing appropriate functional national systems at the outset, rather than trying to retrofit policy frameworks after the event.

9. Offset regimes should be considered as a last line of action, as it is more important to actually reduce emissions outright than to transfer incentives via offset regimes.

10. The real solutions to climate change will come about through a partnership approach between governments, communities, industries and individuals. Members of Clean Energy for Eternity look forward to forging these partnerships and making progress in tackling climate change.

Clean Energy for Eternity admin@cleanenergyforeternity.net.au Web www.cleanenergyforeternity.net.au
PO Box 1177 Bega NSW 2550 Tel 02-64990658

Attachment 1

Bega Valley Centre of Excellence, an opportunity for a Clean Energy Future

Executive Summary

We envisage the potential of setting up a Centre of Excellence in climate change mitigation and adaptation for South-East NSW, headquartered in Bega Valley Shire and with strong links generated by Clean Energy for Eternity's grassroots community initiatives across the region.

The Centre of Excellence will promote innovative and collaborative research and development, facilitate education and learning practices, forge partnerships and shape public policies on climate change mitigation and adaptation. Practical application of research at the community scale would establish it as a leader in the region and beyond. The Bega area is ideally suited for renewable energy generation projects in many fields. The relative geographic isolation of our communities (at the end of the grid) can lead to effective measurement of success in energy efficiency modeling. Our rural industries will benefit from developing carbon sequestration and best practice initiatives that improve both profit and environmental health.

1. Why Have a Centre of Excellence for a Clean Energy Future?

There is no doubt that urgency surrounding global warming is felt at all levels of society and that climate change mitigation is one of, if not the fastest growing industry in the world. This document promotes the concept of a Centre of Excellence in renewable energy generation, carbon offsets and energy efficiency for the South East of NSW. We aim to establish a national focus on climate change mitigation in our region, so that the nation can be provided with tested and working models to address the most pressing issue of the 21st century.

Establishing a Centre of Excellence will expedite Australia's national and local responses to climate change. The working models we can produce can have a far reaching impact on this global issue, while continuing to inspire and inform local action. The global growth of installed solar and wind technologies is currently in the order of 30% per annum, a staggering figure from just one small slice of the climate change mitigation industry. The need for energy auditors, renewable generation engineers and operators, regulatory personnel, and more, will be needed in achieving climate change mitigation.

2. Why Have a Centre of Excellence in the Bega Valley Shire?

Location - The south east corner of NSW is ideally located between Sydney, Canberra and Melbourne, making us easily accessible to established universities and other educational institutions, as well as industry representatives and government agencies. We are one of the most isolated populations in NSW, yet our tourism industry attracts people from NSW, VIC and ACT due to its geographically central location and evident natural beauty. The deep sea water port at Eden makes investment in large scale appliance manufacture (such as wind turbine blades) feasible, with ready access to domestic and international sea transport.

A Committed Community - The population of our shire is diverse, yet a broad cross section of the community is clearly committed to climate change action as evidenced by the overwhelming support for the **Clean Energy for Eternity targets of 50/50 by 2020**. The '50/50 by 2020' target

refers to a 50% reduction in energy consumption and the use of 50% renewable energy by the year 2020. To date, this target has been unanimously adopted by the Bega Valley, Eurobodalla and the Snowy River Shires at community meetings hosted by CEFE, with several more shire communities showing a strong interest. This grass roots demonstration illustrates the concern for climate change and acknowledges the urgent need to act.

Strong Council Support - The Bega Valley Shire Council has given unanimous support to the community targets of 50/50 by 2020 by:

- vigorously pursuing energy efficiencies throughout its corporate structure
- subscribing to GreenPower for all 197 of its sites, saving 5,000 tonnes of CO_2 annually
- joined the Cities for Climate Change Protection
- sponsoring the installation of renewable energy on the roof of every Surf Club in the shire (for matching basis with community donations)as part of the LifeSaving Energy project
- paid for 7,000 50/50 by 2020 bumper stickers to distributed to the residents of our shire
- provided council facilities and a councilor to develop the Bega Clean Energy Action Plan
- and much more

Existing commitment to renewable energy - A staggering 10% of our population is already using stand-alone or grid-interactive renewable energy generation for their homes. Strong community support exists for other organizations relevant to climate change mitigation, including Landcare, Sapphire Coast Producers Association, CMA, and the unique BEND Sustainable Housing Development (see below). Bega was one of the first Shires to declare itself nuclear-free in 1983. It also hosted the first meeting of solar energy proponents (see below).

History of energy innovation - Our community has a proud history in energy innovation. In 1887 Bega built the first municipal gasworks in the colony, while in 1943 the Bega County Council commissioned the first hydro electricity plant at the base of the Brown Mountain. In 1993 Bega hosted the first Australian solar association meeting to help set standards for renewable energy installation. The community target of 50/50 by 2020 is a clear example of our community's will to be pioneers in energy innovation again.

Demonstrated need - The Bega Valley Shire stands to be severely affected by climate change. As temperatures and rainfall patterns change they will affect the major industries of agriculture (predominantly dairy) and horticulture. As transport and energy costs rise, our tourism industry will be affected. Our low lying coastal population will be affected by sea level rise, negatively affecting infrastructure and the ratable base and expenditure of local government. Establishing a major renewable industry in the shire will help mitigate the effect of climate change on our region as well as show leadership globally. This represents an opportunity for our region to develop both economically and socially, while improving our chances of a sustainable long-term existence.

3. Benefits of a Centre of Excellence

Economic benefits - The presence of a Centre of Excellence would diversify our regional economy, kick start new industries and encourage private sector investment in renewable energy generation and plant manufacture, efficiency products and strategies, and the various forms of sequestration. Regional economies threatened by increasing fuel prices and climate variability stand to be the greatest benefactors of climate change mitigation. Rural Australia has the land, infrastructure, resources and ingenuity to take an innovative leadership role in mitigation.

Socio-economic benefits - Increasing the diversity of the job market will help insulate our community from the impact of climate change on our traditional industries. Job creation and employment stability arising from a Centre of Excellence will give young adults more opportunities for local higher education and more hope, in turn helping our community retain more of our most precious asset – our children.

Pride generated through community involvement in the Centre of Excellence will strengthen bonds within our community. Educational development has worked well for other regional areas across the country. Universities in Wagga Wagga and Lismore attract students from far afield, to the benefit of their community's socio-economic well being and stability. The financial investment that can be generated through attracting government and industry support for the concept by developing projects locally will have far reaching benefits for our community.

4. Case studies

Ararat, Victoria - Ararat embraced a wind farm development some years ago, bringing the region increased employment during construction and contributing substantially to the ratable base of the shire's income. Since then Ararat has established an Energy Park industrial area, where a major manufacturer of wind turbine blades hopes to establish a plant to produce and export product via Portland overseas. Locally, this plant is projected to employ 700 people.

Güssing, Austria

In 1989 the small town of Güssing (pop. 4000) suffered 20% unemployment, when a handful of university students developed and subsequently implemented a series of pilot projects in renewable energy and efficiency. Today, Güssing is home to the European Centre of Renewable Energy. The region earns a thriving income from pilot projects via employment, fabrication, energy production and community owned enterprises. The committed community of Güssing has created 1,000 jobs in 15 years and has increased its wealth by 18.7 million Euros (since inception). (See http://www.osce.org/cio/item_1_24841.html?print=1)

5. The Framework for a Bega Centre of Excellence

The Centre of Excellence framework will be multifaceted, comprising leadership and vision from the Clean Energy for Eternity action group, and building on partnerships, local educational facilities and existing industries. A range of pilot projects can readily be developed to address the impact of climate change by developing clean energy sources, efficiency innovation and sequestration. A list of potential pilots is already laid out in the recommendations of the Clean Energy Action Plan, produced for the Bega Valley Shire in November 2006 by a community working group.

Bega Clean Energy Action Plan A community working group developed the Bega Clean Energy Action Plan, based on sustainability principles. This document addresses opportunities for climate change mitigation in the shire. It is a dynamic document which will be reviewed annually to ensure its relevance to the community. It reveals potential pilot projects that will aid the development of a Centre of Excellence, as well as the need to involve the community as a whole for success in achieving 50/50 by 2020. Each shire area that adopts the targets will produce an action plan relevant to their own natural systems and existing infrastructure, creating a specific grass roots address to climate change on a regional basis.

Partnerships - Partnerships are essential to the success of a Centre of Excellence, which requires endorsement and assistance from our local, state and federal representatives, as well as educational institutions, community groups and the business sector. Government can reap the benefit of reaching mitigation targets, by forming strategic partnerships with educational

institutions. Businesses can profit from efficiency gains and returns on investments in projects. The community will benefit from spin-offs such as employment, tourism and localised investment.

Education, research and development - Bega Valley Shire already hosts a range of educational facilities, offering home energy auditing and sustainability courses. The Centre of Excellence would drive these institutions to create new courses. A consortium of TAFE, satellite university and private education could provide our community education in energy efficiency, sustainability and carbon offsets, and train qualified people (eg. renewable energy certification, energy auditing, solar engineering) to enter in to the fastest growing industry of our time.

Focusing on renewable energy, offsets and efficiency education will place us in an ideal situation to develop partnerships with business and government for research and development in climate change and investment in our region. Our central location between Canberra, Sydney and Melbourne makes us readily accessible to some of the major educational institutions. The make up of our rural community can provide the context for definitive research and development modelling. Isolated townships will provide ideal circumstances for measuring tangible outcomes from efficency projects based on transport, bioregional trade, domestic energy use and perceptions.

6. Centre of Excellence Implementation

The initial step to implementing a Centre of Excellence is to set up a taskforce of committed individuals from across our community to lobby government, business and the community to actively participate in developing a Centre of Excellence. Timely establishment will allow us to respond when the market signals of an increased MRET, national efficiency targets and collective carbon trading are eventually announced. Key activities needed are:

- identify ourselves as a Centre of Excellence; promote our 'green credentials'; produce interest in our area for investment and give confidence to potential partners
- establish the central body to co-ordinate development and seek partnership and funding and promote concept
- community and stakeholder consultation
- set annual targets, facilitate projects and long term goals in line with 50/50 by 2020 target
- establish awards to highlight individual and collective achievements in energy efficiency etc; work to increase the status of this award.
- annual assessment to identify achievements of community and business sector against annual targets, communicate the results to maintain enthusiasm
- review Action Plan annually, plan for long term target achievement through annual and incremental review

2020 Vision. - The ultimate goal of the Centre of Excellence concept is to model a sustainable community that is carbon neutral, yet maintains the advantages of the modern life is. To actively engage and involve the whole of community is vital for success. With Clean Energy for Eternity's groundswell of support in Eden-Monaro and recent media attention, we are well placed to become leaders, establishing a Centre of Excellence in renewable energy, offsets and energy efficiency to address the nations concern about climate change.

Summary of Opportunities for New and Existing Industries

Renewable energy
A thriving micro renewable generation installation industry is set to grow as a result of the recent increase in rebates from the federal government. Businesses such as insulation installers, glaziers, builders, auditors etc all have the potential to profit from a community with a better understanding of their individual and collective power to reduce their emissions.

Our isolation in terms of the electricity grid can provide stimulus from the local energy retailers to develop local macro renewable generation. Covenants on electrical supply will require our region to have an upgrade of an extra power line to supply the shire, this situation may well drive these retailers to invest in local generation to offset this costly requirement. The need to satisfy the growing demand for the federal government initiative of Green Power will need to be met by the renewable generation industry.

Other areas to be investigated are wave/current generators, wind farms, solar farms both photovoltaic and thermal, pyrolisis and co-generation using waste heat from generation for other purposes. Our region has the ability to offer most, if not all, the natural systems currently under investigation in Australia for renewable generation.

Energy efficiency
The Centre of Excellence would promote innovation and support greater adoption of energy efficiency appliances and practices, saving energy and hence money, a critical step in dealing with climate change. Energy auditing will play a major role in the success of efficiency and it is estimated on the domestic front that we can achieve a 30%+ reduction in energy use with a pay-back time of 4 years.

The desperate need to address transport in the face of diminishing oil supplies cannot be understated. Regional Australia stands to suffer severe impacts from rising fuel prices, that will affect our entire business and community structure. New transport systems can be measured decisively in a rural community due to the make up of our small townships etc, making them attractive to developers of pilot projects.

The Centre of Excellence would support planning laws that mandate higher energy efficiency from new developments, thus reducing the burden on local government in providing water and sewage etc, and lowering cost and management of infrastructure. The local BEND sustainable housing development is about to move to the construction phase and set a bench mark in low energy living.

Forestry and agriculture
Forestry is a major industry in the SE of NSW. The Centre of Excellence would encourage local businesses to look at bio-energy as a way of increasing profits and improved management of their waste stream. Speculative figures state that 100,000 tonnes of waste wood is generated in the region from the saw milling and chipping industries. Opportunities in carbon credits, bio-gasification, pyrolysis, and wood pellets need investigation, while reduction in greenhouse gas emissions from harvest/management techniques also needs closer examination. Value adding to the waste stream will increase the value of the forest and hence place a greater emphasis on best practice management. The plantation industry is maturing and could well play a vital role in sustainable feedstock supplies in the long term

Similarly agricultural management practices are changing to reduce emissions, such as low or no till farming and again waste stream management The Centre of Excellence would promote the use of the waste stream for renewable generation, increasing the profit potential for the farming community. Bio-gas production from dairy waste shows good potential, as do bio-energy feed stocks both planted and derived from traditional weed species. Algae production has the potential to provide the bio-fuel for a new transport infrastructure.

Carbon sequestration and offsets

The Centre of Excellence would promote carbon sequestration through shrewd land management resulting in increased profits. Carbon offset is globally a multi-billion dollar business, our rural community and industry can benefit from participating in offsets. Areas to be developed are:

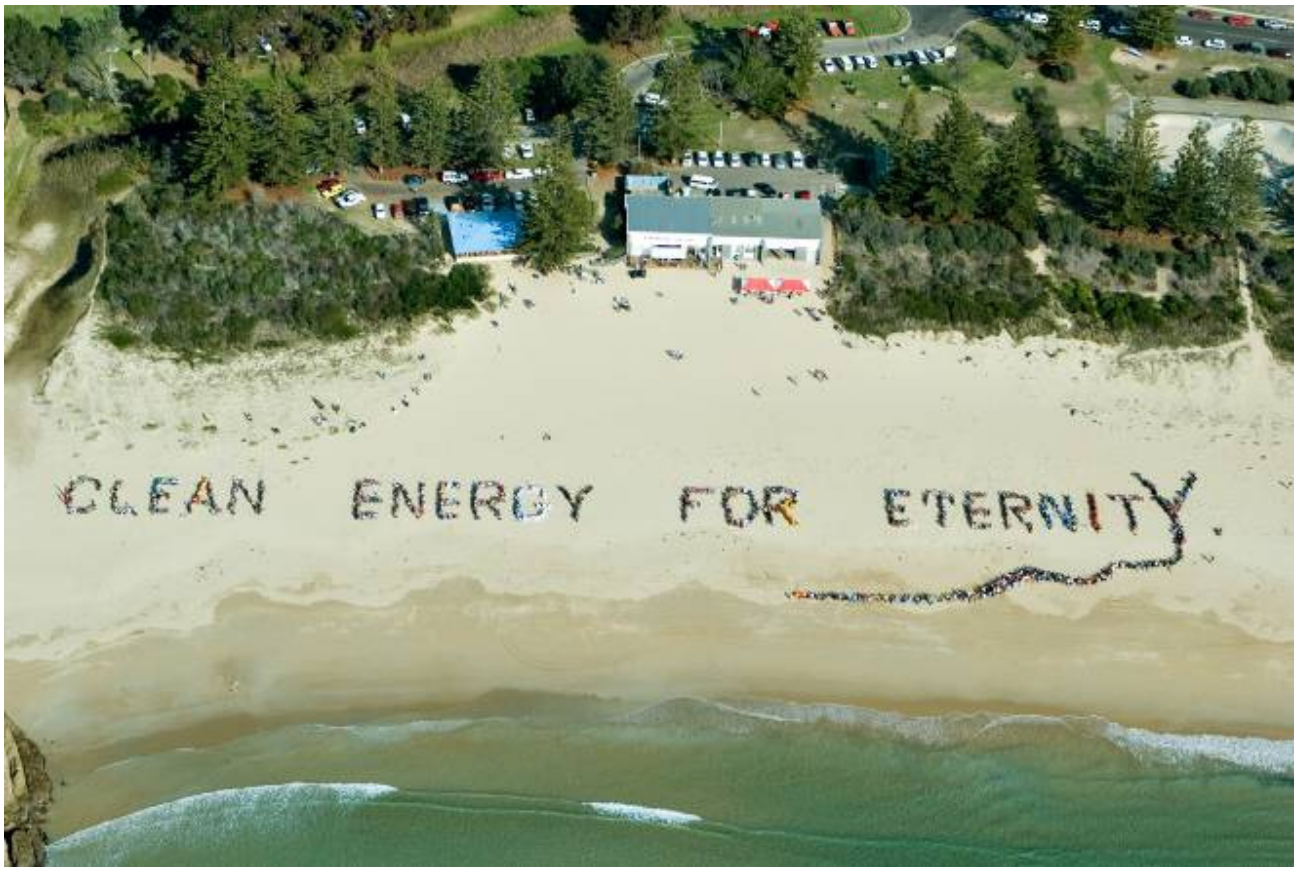
- tree planting for erosion control or wind breaking as well as carbon offsets
- promotion of carbon rich products such as sawn timber to the building industry as a legitimate, sustainable form of carbon storage
- soil carbon shows potential benefits in financial rewards and soil health
- support of Landcare's Carbon Smart project
- pyrolisis has the ability to provide measurable sequestration and improvement to soil health, as well as bi-products for the chemical and plastics industry
- research into new mechanisms for sequestration

Bio regional trade

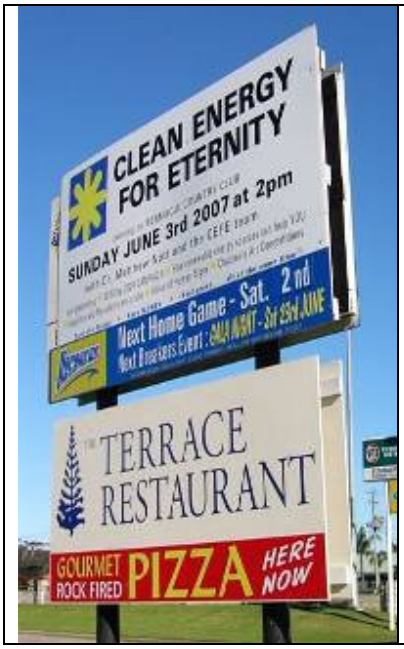
Bio regional trade is an avenue for energy efficiency, to trade locally produced products within our region will keep more money revolving within our region increasing the wealth of the community. The embedded energy in food accounts for approximately 30% of total household energy consumption. This will stimulate local jobs, increase training opportunities and create more diversity hence resilience in our local economy. Bio-regional trade is a key platform in successful long term mitigation. Our region already produces milk, beef, lamb, wine, olive oil, fish, fruits, cordials, mustards, dried fruit, etc the list is extensive, to increase these businesses local market share will have on-flow benefits for the whole community. To empower consumers to take the responsibility of their purchasing regime is vital, with education the consumer can make the choice to sponsor low energy food, products and services.

Tourism

Tourism in our region is a major employer and is set to benefit via the increased branding power our region will achieve through a Centre of Excellence. Our area has already increased its identity through the activities of Clean Energy for Eternity. The potential benefits from study tours, long distance education, conferencing specific to a Centre of Excellence will benefit and embellish our existing tourism industry. Eco tourism is set to be a beneficiary as well, as discerning consumers decide to spend their recreational dollars for minimum environmental impact. We already have some progressive tourism operators that are taking advantage of the developing eco-market.



The Human Sign that started it all - 3000 people on Tathra Beach on Sunday 21 May 2006



Sign advertising Bermagui Meeting in June 07 – Bega CEFE members after a regular meeting

Clean Energy for Eternity admin@cleanenergyforeternity.net.au Web www.cleanenergyforeternity.net.au
PO Box 1177 Bega NSW 2550 Tel 02-64990658

Attachment 2

MEDIA RELEASE

Senator Chris Evans

Leader of the Opposition in the Senate
Shadow Minister for National Development, Resources and Energy

Mike Kelly

Labor candidate for Eden Monaro

LABOR BACKS SOLAR FARM FOR SOUTH COAST

A Rudd Labor Government will provide up to $100,000 towards the establishment of a Solar Farm on the New South Wales South Coast as part of Federal Labor's Green Precincts program.

"A ten hectare solar farm on the South Coast could provide 2 megawatts of power - enough to power up to 1000 homes - and provide a positive working example for regional communities across Australia," said Senator Chris Evans, Shadow Minister for Resources and Energy.

"Solar power is one of the cleanest forms of energy, capable of significantly reducing greenhouse pollution and providing low-cost renewable energy to power our homes and heat our water."

"A Rudd Labor government will provide the funding to the South Coast community group ***Clean Energy for Eternity*** towards a detailed scoping study into a South Coast Solar Farm", said Mike Kelly, Labor candidate for Eden Monaro.

"This funding is a tribute to the hard work of Clean Energy for Eternity, which has galvanised public support throughout the South Coast and beyond for real action on climate change and clean, renewable energy."

"Should the project go ahead, Federal Labor would consider funding up to an additional $1 million in matching funds through Labor's $15 million Green Precincts program to support the construction of the solar farm," said Senator Chris Evans.

Federal Labor's Green Precincts program will fund at least ten high profile practical projects that:

- Demonstrate significant water and energy savings, including use of renewable energy;
- Are built at facilities that connect with or are used by thousands of people; and
- Include a significant community education component.

A Rudd Labor Government will deliver a comprehensive action plan on climate change and clean energy, including:

- Ratifying the Kyoto protocol;
- Establishing a national emissions trading scheme by 2010 and cutting Australia's greenhouse pollution by 60 per cent by 2050;
- Setting a 20 per cent renewable energy target by 2020;
- Establishing a $500 million Renewable Energy Fund, a $240 million Clean Business Fund and a $150 million Energy Innovation Fund;
- Making every Australian school a Solar School; and
- Offering generous rebates and low interest loans to help Australian families install solar power and solar hot water

Contact: Tim Friedrich (Evans) 0417 753 219
Mike Kelly

Attachment 3

Expert Advisory Panel on Climate Change Solutions for Bega Valley
Background on people who've offered their expertise to the Bega Energy Working Group

Dr Pep Canadell –Global Carbon Project

Executive director of the **Global Carbon Project,** formed to assist the international science community to establish a common, mutually agreed knowledge base supporting policy debate and action to slow the rate of increase of greenhouse gases in the atmosphere. The growing realization that anthropogenic climate change is a reality has focused the attention of the scientific community, policymakers and the general public on the rising concentration of greenhouse gases, especially carbon dioxide (CO_2) in the atmosphere, and on the carbon cycle in general.

Dr Peter Newman - Instititute for Sustainability and Technology Policy

Director of the Sustainability Policy Unit, Dept. of Premier and Cabinet, Western Australia, Professor in City Policy and Director of the Instititute for Sustainability and Technology Policy at Murdoch University. Peter is well known for his work on transport policy (his book with Jeff Kenworthy Sustainability & Cities: Overcoming Automobile Dependence was launched in the White House in 1999). He's Professor of City Policy & Director of the Institute for Sustainability and Technology Policy at Murdoch University, where he's been since 1974. In 2001-3 Peter directed the production of Western Australia's Sustainability Strategy in the Department of the Premier and Cabinet, the first state sustainability strategy in the world.

***Quote**: "No problem, I'd like to help. I am away on a Fulbright until February but can still help by email. These kind of visionary opportunities start in small places so don't feel you are not in the right place to do creative exercises like this. Peter"*

Dr Mark Diesendorf - Institute of Environmental Studies

Senior Lecturer, Institute of Environmental Studies, University of New South Wales. He co-authored A Clean Energy future for Australia with Hugh Saddler, wrote the recent book on "Greenhouse Solutions from Sustainable Energy", as well as teaching at UNSW, addressing numerous public meetings, conferences and seminars, and doing media. Mark teaches, researches and consults in the interdisciplinary fields of sustainable energy, sustainable urban transport, theory of sustainability, ecological economics, and practical processes by which government, business and other organisations can achieve ecologically sustainable and socially just development.

***Quote** "The process in the Bega Valley sounds great and I'll be happy to comment on drafts, especially from November onwards."*

Dr Hugh Saddler - Energy Strategies

Managing Director of Energy Strategies Pty Ltd, a consultancy company he established in 1982, specialising in the fields of energy, environment and technology economics and policy. He is the author of a book on Australian energy policy and over 70 scientific papers and articles on energy technology and environmental policy.

Professor Tony McMichael – National Centre for Epidemiology and Health

See http://nceph.anu.edu.au/Research/Env_Health/projects.php#climatechange
Prof. A.J. McMichael
Director, National Centre for Epidemiology & Population Health
Australian National University, Canberra ACT 0200 AUSTRALIA

Paul F Downton - Urban Ecology Australia

BSc(Hons) BArch(Wales) PhD ARAIA - Architect & Urban Ecologist
Director and Principal Architect of Ecopolis Architects Pty Ltd. Urban Ecology Australia formed in 1991, the national non-profit urban environmental community group which has been actively promoting ecological developments ever since. Through UEA and Ecopolis Architects I continue to disseminate and promote ecological city ideas in Australia and overseas. All this informs my approach to architecture and has reinforced my conviction that good, appropriate design is vital to making healthy human environments, and that defining the brief, understanding the site and listening to clients is the most important step in any design process.