

Catch the wind of change

Discover how a community minded approach to today's renewable energy technologies provides a solution to yesterday's fossil fuels.

CENREC

Sustainable
community
owned power.

Invest in our future

Combining community and health benefits with falling production costs, renewable and lower carbon fuel technologies sharply contrast the escalating social, health, environmental and financial costs of exploration, production and use of fossil fuels.

In addition to costs, we compare our current system with a less risky alternative, touching on themes of human health, technology, economic investment, natural landscape, water usage, farming, greenhouse gases and how energy ownership affects the community.

We explore the benefits of a community based approach and how individuals within the community can take responsibility to improve the way things are.

The logo for CENREC (Community Energy Network Resource Center) features the word "CENREC" in a bold, sans-serif font. Above the letters "E" and "N" are stylized blue waves. Below the main text, there is a smaller line of text that reads "COMMUNITY ENERGY NETWORK RESOURCE CENTER".

CENREC
COMMUNITY ENERGY NETWORK RESOURCE CENTER

*Sustainable
community
owned power.*

A problem brewing

from outdated systems



Burning fossil fuels increases risks to human **health**, particularly for the old and the young, including chronic respiratory disease, lung cancer, heart disease, and damage to the brain, nerves, liver and kidneys.



Old energy **technology** is wasteful. Our 'baseload' electricity grid operates at approximately 33 per cent efficiency.



Economic investment in old energy is in decline. Job opportunities were eclipsed by those in non-fossil fuel technologies a decade ago.



Fossil fuels and nuclear power massively degrade the natural **landscape** while competing for **water** resources and **farming** land.



The fossil fuel industry **costs** taxpayers \$523 billion annually in subsidies.



Burning fossil fuels for our energy adds carbon dioxide to more **greenhouse gases** threatening our food supply from both land and sea.



Current power system politics puts control in the hands of the few and leaves the **community** dependent, insecure and out of pocket.

A solution is here

for sustainable prosperity



Clean energy means good **health**. Replacing fossil fuels with renewable energy has been found to reduce premature mortality and lost workdays, and it reduces overall healthcare costs.



Renewable energy **technology** demonstrates both rising efficiencies and falling costs.



The Clean Energy Australia Report 2012 shows strong **economic investment** in the industry supports 24,300 employees nationally.



Harnessing renewable energy does not need **water**, complements other land uses such as **farming** and preserves the natural **landscape**.



Renewable energy technologies distribute electricity where it's needed, reducing baseload requirements, yet **cost** taxpayers less than one sixth of fossil fuel subsidies.



Power generated without **greenhouse gases** dramatically reduces further global warming potential. All renewable energy resources are low carbon.



Community renewable energy champions democracy, regional energy security, local leadership, as well as financial, social and environmental investment. **Community** owned power says it all.

An opportunity awaits

to benefit the community



No Australian or international medical or scientific body has found wind turbines to harm people's **health**.



Electricity generated regionally reduces peak demands on the wider network. Distributed energy **technology** means every kilowatt hour (kWh) we generate locally replaces the need for an estimated 1.1 kWh to be generated elsewhere.



NSW Government Office of Environment and Heritage estimates strong policy and **economic investment** will create 1,713 new clean energy jobs in the Central Tablelands in the next 15 years, including 200 permanent positions in wind energy.



Wind farm construction has negligible impact on the natural **landscape** and supports improvements to surrounding roads. **Water** is not required for wind powered electricity generation. At Flyers Creek, the proposed wind farm will supplement current **farming** practices.



NSW Independent Pricing and Regulatory Tribunal (IPART) estimates large-scale renewable energy target **costs** of \$40 for 2013/14, or \$10 a quarter, for the typical residential electricity bill.

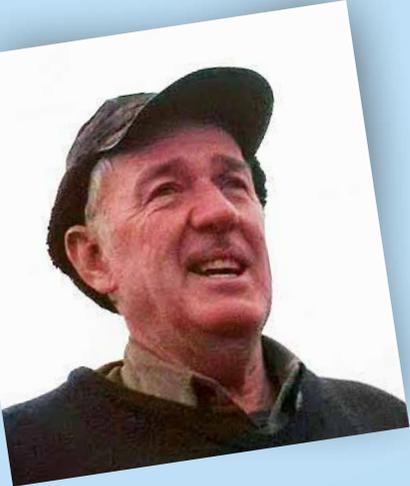


Associated **greenhouse gas** emissions from manufacturing a wind turbine generator are all offset within the first nine months of operation.



Cooperatives are unique business models with active membership tests. A very democratic process rewards members, who determine all major decisions taken by the cooperative, thus strengthening **community** power.

One farmer's view



Kim Masters, a farmer all his life, is also uniquely experienced from working in electricity generation, installing and maintaining coal, gas and hydro generation plants from the very small to the largest

units in Australia. His view explores similar themes to those we investigate.

*“Why should we expect another community to have the **health** problems associated with coal-fired power stations just so we can have electricity? There’s no pollution around wind farms like a coal fired power station or a nuclear power station; and they don’t use water. It’s basically a no brainer!”*

*“**Technology?** The newest power station that NSW has, coal-fired, is Mount Piper which is 21 years old.”*

*“A project like this **invests** a lot of money back into the*

community, and historically, farmers – when they earn a dollar, they spend it, either on improvements on the place, new machinery (or they give it back to the bank manager, too!) All the bureaucrats keep saying ‘farmers, you’ve got to drought proof your property; think outside the square’. By doing this, you get a guaranteed income 52 weeks of the year irrespective of what current market prices are.”

*“The beauty of wind turbines is, in 20 years time if there’s some silver bullet produced for generating electricity, all you do is come along, pick them up with a crane; they’re gone. It’s not like the legacy left after a coal mine, where the **landscape** has all been degraded.”*

*“There’s two 700 megawatt generators there [Mount Piper coal-fired power station], they consume roughly an Olympic swimming pool of **water** every hour; that goes up in steam.”*

*“There will be no difference in operations here if this wind farm goes ahead. It’ll still produce an agricultural product at the end of it. As we mine more and more coal, we remove our productive **farming** land from use.”*

“Currently, with nearly all power stations, the colliery supplying the coal is owned by the government too. The

***cost** they pay for the coal is a lot less than what they get for it when they ship it overseas. But the governments of the day have decided they want to sell off all this infrastructure so when that’s handed over to private enterprise they won’t be selling the coal to the power station for a cheap price. They’ll be selling it for what the world price is, so we can expect a huge increase in our electricity charges.*

*“Plus the coal they burn, the coal has to be mined, then carted in there. It’s not just the carbon **footprint** of the power station, it’s everything else that comes into it, and then you’ve got to maintain it. It’s huge.”*

*“The Flyers Creek Wind Farm will benefit our **community** in many ways, from employment in the construction phase and then for ongoing maintenance to local road improvements that may not otherwise happen for some time. The community owned turbine will create interest in renewable energy as well as draw tourists, while the establishment of an enhancement fund will contribute significantly to local community groups.”*

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Office of
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