



Renewable Energy **Myth** vs. **Fact**

What Local Councils Should Know

As with any industry, myths abound regarding the use of renewable energy. Consider solar energy. It's too expensive, too land-intensive and provides few jobs for Australians, since most solar panels are made in other countries. Sound familiar?

These misperceptions can affect the view of government organisations, including local councils, and may influence the degree to which they support the growth of renewable energy installations in communities, homes and businesses.

The Clean Energy Council has produced a report, available on its website, entitled, "Solar PV Myths and Facts", that sets the record straight about household solar power in Australia.

Following the CEC's lead, let's explore some myths and facts about commercial renewable energy alternatives versus standard power offerings:

MYTH

Renewable energy technologies involve high total cost versus traditional power methods. And because "clean energy" technologies are immature, they cannot compete technologically with conventional energy approaches.

FACT

Although not all renewable energy alternatives are at the same stage of development, on-shore wind and PV solar are technologically mature and cost-competitive. In fact, recently released research from Bloomberg New Energy Finance (BNEF) shows that since 2011, the cost of wind generation in Australia has fallen by 10 percent and the cost of solar photovoltaic by 29 percent. In contrast, the cost of energy from new fossil-fuelled plants is high and rising. One factor is the increased cost of financing. As part of the BNEF research, four of Australia's largest banks were surveyed and stated that they would be unlikely to finance new coal without a significant risk premium.

MYTH

When discussing the benefits of renewable energy investment, the creation of "green jobs" is often high on the list. But this is empty rhetoric, since the bulk of economic benefit goes to foreign component manufacturers.

FACT

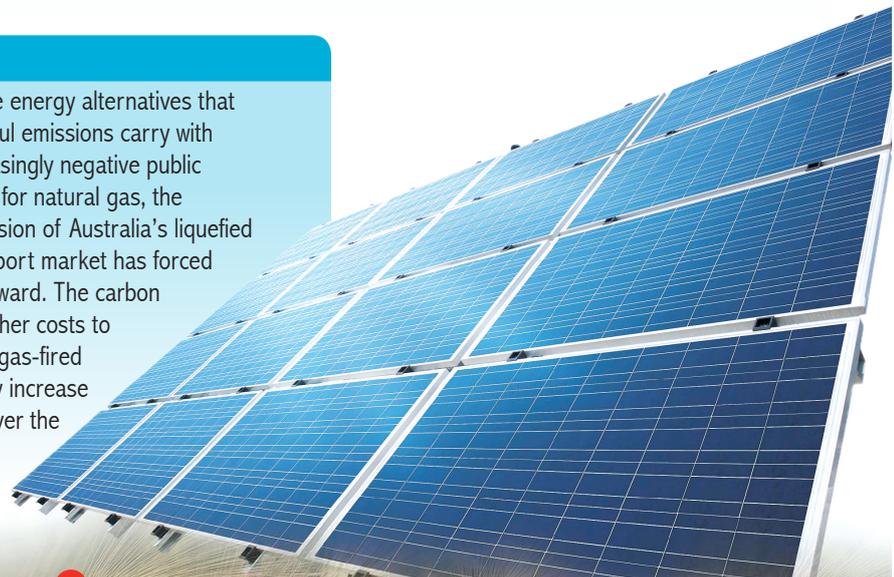
It's true that wind turbines and solar panels/inverters are largely sourced from foreign manufacturers. However, local economic benefits still accrue. For example, many foreign manufacturers have Australian distribution offices and those agents employ numbers of local citizens.

Renewable energy jobs in Australia have increased significantly over the past decade. According to a recent Clean Energy Council Report, "Building on the Employment Benefits of Clean Energy", more than 24,000 people were directly employed by the Australian clean energy sector by the end of 2012.

Yet the true economic impact of renewable energy must also include the indirect employment that is not always reflected in official figures. Much of the work needed to design projects, supply parts, and build renewable energy solutions is done by partners to the main contractor. Local biologists, surveyors and engineers may be involved in completing needed environmental and technical studies. **Construction jobs and permanent high-paying operation, maintenance and technical jobs are also part of the mix.**

Additionally, there are many instances of partnerships between the clean energy industry and other parties. For example, fuel for bioenergy plants is often sourced from agricultural waste such as sugar cane bagasse, which provides a new and stable income stream for farmers during rough environmental or market conditions. Meanwhile, the solar PV industry provides thousands of direct jobs in nearly every part of Australia through system installation, plus office-based management, technical, retail and administrative jobs. Solar energy also supports diverse indirect jobs in areas such as utilities (installing the metering), research and development (where Australia has significant expertise), manufacturing in balance of system components, and distribution.

Why? Because energy alternatives that produce harmful emissions carry with them an increasingly negative public perception. As for natural gas, the massive expansion of Australia's liquefied natural gas export market has forced local prices upward. The carbon price adds further costs to new coal- and gas-fired plants and may increase substantially over the plant lifetime.





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MYTH

Wind, and especially solar power is very land intensive.

FACT

A 2003 U.S. Department of Energy National Renewable Energy Laboratory report noted that a "100-by-100-mile area of Nevada could supply the United States with all of its electricity". If these systems were distributed to the 50 states, the land required from each state would be an area of about 17 by 17 miles. The area necessary is available right now from parking lots, rooftops and vacant land. In fact, the report points out that nearly 90 percent of that power could come from solar energy systems installed on the estimated five million acres of abandoned industrial sites across America.

Bearing in mind our much smaller population,
Australia has a similar amount of car parks, rooftops and vacant land that could be used for solar power generation.

MYTH

Climate change is real and the effects are taking place now. Rather than waiting till renewable energy technologies mature and become viable on a mass scale, we should invest in lower emissions technologies like coal seam gas or nuclear.

FACT

Climate change impact is indeed real, and clean energy technologies like wind, PV solar and thermal solar are mature technologies that are now commercially competitive and environmentally beneficial. The barriers to expanding renewable energy technologies in Australia are not economic or technological, but political.

Experts predict that by 2050, one-third of the world's energy will need to come from solar, wind, and other renewable resources. These experts include British Petroleum and Royal Dutch Shell, two of the world's largest oil companies. The driving force behind their prediction is not only climate change, but also population growth and fossil fuel depletion.

Coal seam gas is a contentious issue with farmers. It has the potential to destroy valuable farmland and pollutes waterways, with limited overall reductions in carbon emissions. Contrary to what many believe, this is not a clean fuel source. Nuclear energy-driven electricity is not favoured by the majority of Australians and is unlikely to become an energy contender within the near future.

Coal seam gas, carbon capture storage and nuclear energy only serve to distract attention from safe, cost-effective options such as wind and solar.

MYTH

Shutting down coal-fired power stations will cost jobs and hurt the economy.

FACT

An economy reliant on finite fossil fuel electricity generation is neither financially nor environmentally sustainable. Conversely, installing, operating and managing renewable energy systems can bring massive economic and employment benefits to Australia. According to Australia's Centre of Full Employment and Equity, it has been estimated that a 100 percent renewable energy sector would create over 73,000 direct and indirect jobs.

