

Rise Up Australia Party Clean Energy Policy – Renewable energy

* Domestic power bills have risen substantially across Australia over the last decade, and they are expected to increase further in coming years.

Rise Up Australia Party [RUAP] believes this should not be the situation, that there are easily attainable solutions to the rising energy and fuel cost that the nation is currently facing.

Whether we believe that that the Government is ‘shafting’ us by exporting excessive amounts of our oil causing a substantial shortage of natural gas, triggering high wholesale prices which in turn, push up our wholesale electricity prices where power stations have relied on backup power generation from gas. Or: If we agree with the thinking that the Renewable Energy Target is driving up power bills, it is at this stage irrelevant. Trends have shown that the cost of power will inevitably rise no matter what policies are put up, what procedures are endorsed or what Governments are in power.

An [analysis from .energy market experts ROAM Consulting](#) found that Australian households would pay over half a billion dollars more for power in 2020 without the Renewable Energy Target in place, and up to \$1.4 billion more per year beyond that.

We need change!

To address this seemingly insurmountable problem of rising energy prices, RUAP is off the belief that you take a ‘full fisted’ approach.

What do we mean by that? We don’t just focus on one source of energy or follow popular solution ideas, but we take into consideration what has been reliable and dependable in the past as well as adding new and improved methods of producing clean and renewable energy into the spectrum. Let us explain; we have 5 fingers in a full hand and we need to use all the fingers for the hand to function to the best of its ability, therefore we can use this same principal with energy.

We have available to us many natural resources: Wind, Natural Gas, Electricity produced by coal, and water. Solar energy from the sun, steam and even oil.

WHAT! Coal!! Yes, Coal still is ‘on the Table’ as a viable source of energy. Through new developments that eliminate emissions that have previously dammed the use of coal as a clean energy source.

We believe that all the resources cited above have their place in producing affordable clean and or renewable energy in this country. The use of energy produced and developed from using these sources will create employment, protect the environment and attract foreign investment. Also we have been researching developing techniques that can turn waste, plastics and coal into sustainable clean energy.

Combustion of Coal (1)

COAL POWERED POWER STATIONS

This article appeared in the Rockhampton morning Bulletin on 22.12.09.

Written By Terence Cardwell www.terrycardwellsblog.blogspot.com.au

The Editor

The Morning Bulletin.

I have sat by for a number of years frustrated at the rubbish being put forth about carbon dioxide emissions, thermal coal fired power stations and renewable energy and the ridiculous Emissions Trading Scheme. Frustration at the lies told (particularly during the election) about global pollution. Using Power Station cooling towers for an example. The condensation coming from those cooling towers is as pure as that that comes out of any kettle.

Frustration about the so called incorrectly named man made ‘carbon emissions’ which of course is Carbon Dioxide emissions and what it is supposedly doing to our planet.

Frustration about the lies told about renewable energy and the deliberate distortion of renewable energy and its ability to replace fossil fuel energy generation. And frustration at the ridiculous carbon credit programme which is beyond comprehension.

And further frustration at some members of the public who have not got a clue about thermal Power Stations or Renewable Energy. Quoting ridiculous figures about something they clearly have little or no knowledge of. First coal fired power stations do NOT send 60 to 70% of the energy up the chimney. The boilers of modern power station are 96% efficient and the exhaust heat is captured by the economisers and reheaters and heat the air and water before entering the boilers.

The overall efficiency is 42% with the Alternator at 99%, the turbine at 44% on a black bituminous coal fired unit. Brown Victorian coal has lower efficiencies mainly due to higher moisture content in their coal. The total figure can vary depending on the type and quality of coal and also the size of the unit. The later and larger units are more efficient.

The very slight amount exiting the stack is moist as in condensation and CO₂. There is virtually no fly ash because this is removed by the precipitators or bagging plant that are 99.98% efficient. The 4% lost is heat through boiler wall convection.

Coal fired Power Stations are highly efficient with very little heat loss and can generate massive amount of energy for our needs. They can generate power at efficiency of less than 10,000 b.t.u. per kilowatt and cost wise that is very low.

The percentage cost of mining and freight is very low. The total cost of fuel is 8% of total generation cost and does NOT constitute a major production cost.

As for being laughed out of the country, China is building multitudes of coal fired power stations because they are the most efficient for bulk power generation.

We have, like, the USA, coal fired power stations because we HAVE the raw materials and are VERY fortunate to have them. Believe me no one is laughing at Australia – exactly the reverse, they are very envious of our raw materials and independence.

Coal is an excellent choice for Australia as we have plenty of it still under the ground and with the new technology we have at hand coal can become a Sustainable energy

Coal and other fossil fuels are mined from the crust of the earth and burned creating major pollution problems in cities where usage is high. It is the incomplete combustion of fossil fuels which creates carbon monoxide and other gases which in turn reduces and pollutes the oxygen in our atmosphere.

Magnecules and magnehydrogen are seen to be the best additives to fossil fuels and can effectively enhance the combustion efficiency, reducing the amount of unacceptable gases.

Recently there have been advances made in combustion efficiency which is the work of U. S. professor R. M. Santilli who has developed a new clean combustible gas, called Magnegas. **(2)**

Coal as well as clean water or even domestic sewage water can be converted to Magnegas by systematic introduction to electric arc, generating a high current in microseconds.

What is clever and makes this new technology come across as efficient, is that the Magnetized hydrogen from Magnegas burns with elevated temperature and helps in complete combustion of carbon in coal and hydrocarbon in gasoline

With a development, such as we have with Magnegas we could produce a cheaper and more efficient use of coal generated energy, which has never been possible in the past. This would give us a whole new industry which would lift employment, giving a much-needed economy boost, and naturally, cheaper electricity.

Geothermal Energy (2) – The heat from the earth, is a natural clean economical resource of energy.

Technologies include:

- Geothermal Electricity Production - Generating **electricity** from the earth's heat.
- Geothermal Direct Use - Producing **heat** directly from hot water within the earth.
- Geothermal Heat Pumps - Using the shallow ground to **heat and cool** buildings.

Geothermal energy is a clean and sustainable means of obtaining heat which can be sourced from just beneath the surface of the Earth. It can also be taken from the hot water and hot rock found a few miles beneath the Earth's surface.

Almost everywhere, the shallow ground or upper 3 metres of the Earth's surface maintains a nearly constant temperature between 10°C and 16°C. Geothermal heat pumps can tap into this resource to heat and cool buildings. The pump system operates through a 'heat exchanger' - a system of pipes buried in the shallow ground near to a building. In the winter, the heat pump removes heat from the heat exchanger and pumps it into the indoor air delivery system. In the summer, the process is reversed. The heat removed from the indoor air during the summer can also be used to provide a free source of hot water.

Wells can be drilled into underground reservoirs for the generation of electricity; steam from a reservoir can power a turbine/generator; hot water near the surface of Earth can be used directly for heating.

Applications for the above have included heating buildings, growing plants in greenhouses, drying crops, heating water at fish farms, and pasteurizing milk, etc. etc.

Geothermal energy, hot, dry rock resources occur at depths of 3 to 5 miles everywhere beneath the Earth's surface and at lesser depths in certain areas. Access to these resources involves injecting cold water down one well, circulating it through hot fractured rock, and drawing off the heated water from another well. Currently, this technology is used only for domestic application; but this can be developed to include other applications. Many technologies have been developed to take advantage of geothermal energy.

This is definitely a viable option, supported by **RUAP** for maintaining lower cleaner priced energy.

Tidal Energy - What is Tidal Energy? ⁽³⁾

Tidal energy is a form of hydropower that converts the energy of the tides into electricity or other useful forms of power. The tide is created by the gravitational effect of the sun and the moon on the earth causing cyclical movement of the seas. Tidal energy is therefore an entirely predictable form of renewable energy, which can be harnessed in two forms:

Tidal Range

Tidal Range is the vertical difference in height between the high tide and the succeeding low tide. Artificial tidal barrages or lagoons may be constructed to capture the tide. Turbines in the barrier or lagoon generate electricity as the tide floods into the reservoir; water thus retained can then be released through turbines, again, generating electricity once the tide outside the barrier has receded.

Tidal Stream

Tidal Stream is the flow of water as the tide ebbs and floods, and manifests itself as tidal current. Tidal Stream devices seek to extract energy from this kinetic movement of water, much like wind turbines extract energy from the movement of air.

The sea currents created by movement of the tides are often magnified where water is forced to flow through narrow channels or around headlands. There are several locations around the coastline of the UK where the tidal stream resource is high, and it is in these areas where early technology developments are taking to explore the prospect of harnessing tidal energy.

Wind

We can harness wind energy and use it to generate power as long as the sun shines and the wind blows. Wind Turbines are already in use in many parts of Australia and NZ. Although there are many pluses with wind, there are also some negatives. The trick comes we believe, in Location, Location, Location. There is no doubt that the use of wind is cost effective, renewable and clean; one of the options for solving Australia's escalating energy crisis. The key is finding the right localities. Listed below are some of the pros and cons of wind turbines,

however we believe the Pros out way the cons, and we would endeavour to use this source of energy in balance with other sources of clean and or sustainable energy named in this policy.



<https://www.conserve-energy-future.com/wp-content/uploads/2015/01/Wind-energy-cons.jpg>

Like solar energy, wind energy is one of the fastest growing energy source in the world with the United States aiming to produce 20 percent of its electricity by wind power by 2030. There is no doubt from the research that wind energy is going to reduce our reliance on fossil fuels like coal, oil and gas in the coming decades, but to what extent is unknown. Wind is a renewable and clean source of energy that doesn't generate any greenhouse gases. Wind doesn't cost anything making operational costs close to zero once a turbine starts running. Furthermore there is ongoing research in the field of technology to make wind power cheaper, giving viable alternatives for individuals and businesses to generate power.

The benefits of Wind Energy:

1. Clean Source of Power

The production of wind energy is "clean". Unlike using untreated coal or oil, creating energy from the wind doesn't pollute the air or require any destructive chemicals. Thus, wind energy lessens our reliance on fossil fuels from outside nations as well, which helps our national economy and offers a variety of other benefits as well.

2. Renewable Source

Wind is free. If you live in a geological area that gets a lot of wind, it is ready and waiting. As a renewable asset, wind can never be drained like, non-renewable assets. The expense of delivering wind energy has dropped fundamentally lately, and as it becomes more popular, it will just continue to be cheaper. You will recover the expense of obtaining and introducing your wind turbine over time.

3. Cost Effective

Wind turbines can give energy to numerous homes. You don't have to possess your own wind turbine (keeping in mind the end goal is to harvest the profits) you can buy your power from a service organization that offers wind energy for a specific area. That means, you don't even necessarily have to invest any cash to reap the benefits of wind energy for your home or business.

4. Extra Savings for Land Owners

Land holders who rent area to wind homesteads can make a considerable amount of additional cash, and wind energy likewise creates new employments in this developing engineering field. Government organizations will

also pay you if they can install wind turbines on your land. In some cases, the electricity company may end up owing you if you produce more power than you use.

5. Rapid Growth and Huge Potential

Wind energy has seen enormous growth in last decade. According to the U.S. department of energy, cumulative wind power capacity has increased by an average of 30% per year. Wind energy accounts for about 2.5% of the total worldwide electricity production. Wind turbines are available in various sizes which means a vast range of people and businesses can use this source of energy to produce power or sell it for profits.

6. Can be Built on Existing Farms

Wind turbines can be installed on existing farms or agricultural land in rural areas, there it can be a source of earning for the farmers as wind turbine owners pay farmers for use of their land. It doesn't occupy much space and farmers can continue to work on the land.

The disadvantages of Wind Energy:

1. Wind Reliability

Wind doesn't generally blow reliably, and turbines usually function at about 30% capacity or so. If the weather is not what is required, you may end up without power unless you have another source. Bad storms, high winds, or lightning can cause harm to your wind turbine.

2. Threat to Wildlife

The edges of wind turbines can be unsafe to bird life, and other flying creatures. There isn't currently a way to prevent this, it is something we need to be aware of when considering possible locations for turbines.

3. Installation

Wind turbines can be a pain to install and deal with on a regular basis. They make a sound that can be between 50 and 60 decibels, and if you must put it next to your house it would be irritating. Some believe wind turbines are ugly. Neighbours may complain about them because they are concerned that it may tarnish the beauty of the landscapes.

4. Set Up Expenses - and Safety

Wind turbines and supplies needed to make wind energy could be costly, and depending upon where you live, it might be hard to find suppliers and maintenance people if needed. Severe storms and high winds can cause damage to the blades of the turbine, which can result in malfunctioning blades. This may become a safety hazard to people working nearby.

5. Suitable Locations for wind Turbines that Service Cities

Wind energy can only be harnessed at certain locations where the speed of wind is high. Since they are mostly setup in remote areas, transmission lines must be built to bring the power to the residential homes in the city. This requires extra investment to set up the infrastructure.

6. Environmental issues

Because we do not want to chop down trees, suitable areas for wind turbines maybe hard to find. Council requirement, city programs and authorisations may prove to be tedious when you are attempting installation. And height confinements may keep you from installing one on your property as well.

Natural Gas

This source of energy holds a valuable position in our commitment to give Australians affordable, clean and or sustainable energy. There are many varied and complex issues to consider when delivering affordable energy and we can't dismiss sources of fossil fuels just for that reason alone- that they are fossil fuels. As stated above we now have available to us up-to-date developments and technology that allows us to produce from fossil fuels, cleaner energy with a substantial reduction in carbon emissions. Considering also that the infrastructure for natural gas is well established and the cost to produce it is low, this resource should remain as an economical alternative to householders.

'Natural gas is a naturally occurring [hydrocarbon gas](#) mixture consisting primarily of [methane](#), but commonly including varying amounts of other higher [alkanes](#), and sometimes a small percentage of [carbon dioxide](#), [nitrogen](#), [hydrogen sulfide](#), or [helium](#).^[2] It is formed when layers of decomposing plant and animal matter are exposed to intense heat and pressure under the surface of the Earth over millions of years. The energy that the plants originally obtained from the sun is stored in the form of chemical bonds in the gas.^[3]

Natural gas is a [fossil fuel](#) used as a source of energy for heating, cooking, and electricity generation. It is also used as [fuel for vehicles](#) and as a chemical feedstock in the manufacture of [plastics](#) and other commercially important [organic chemicals](#). Fossil fuel based natural gas is a [non-renewable resource](#).^[3] ⁽⁴⁾

Natural gas is also vital in its contribution in assisting other sources of energy to produce affordable power.

Power generation:

Natural gas is a major source of [electricity generation](#) through the use of [cogeneration](#), [gas turbines](#) and [steam turbines](#). Natural gas is also well suited for a combined use in association with [renewable energy](#) sources such as wind or [solar](#)^[44] and for alimenting [peak-load](#) power stations functioning in tandem with [hydroelectric](#) plants. Most grid [peaking power plants](#) and some off-grid [engine-generators](#) use natural gas. Particularly high efficiencies can be achieved through combining gas turbines with a steam turbine in [combined cycle](#) mode. Natural gas burns more cleanly than other [hydrocarbon fuels](#), such as oil and coal, and produces less carbon dioxide per unit of energy released. For transportation, burning natural gas produces about 30 percent less [carbon dioxide](#) than burning [petroleum](#). For an equivalent amount of heat, burning natural gas produces about 45 percent less carbon dioxide than burning [raw coal](#) for power.^[45] (Right click, then "Open Hyperlink")

Solar

Because of the abundance of solar energy available to us we must take advantage of this valuable clean, renewable and cheap resource.

'Australia has the highest average solar radiation per square metre of any continent in the world. Large-scale solar electricity is rapidly expanding in the country. More than two million Australian households currently have a solar system on their rooftop.

Solar energy is energy created by the heat and light of the sun. Solar power is produced when this energy is converted into electricity or used to heat air, water, or other substances.' ⁽⁵⁾

The main advantages of solar to the nation are that It reduces carbon emissions, and the source is totally free as there are no costs in producing It, and it can help Australia to lead the world in energy independence.

Perhaps the most admirable and patriotic advantage of solar power is that it benefits our environment and takes us away from being heavily reliant on fossil fuel.

The main disadvantage to Solar is the setting up cost for the householder. Solar is a big financial investment, and it can take time to reach the break-even point which can vary from around 5 years onward depending on your power consumption.

The cost of solar panels and the installation is definitely an issue that the Government needs to investigate. This is the largest deterrent of householders installing solar. With the technology we have available to us there is no good reason why we cannot develop good quality efficient solar panels at a more reduced cost than what we are led to believe it costs. China seems to be able to manage.

China is the world's largest market for both [photovoltaics](#) and [solar thermal energy](#). Since 2013 China has been the [world's leading installer](#) of solar photovoltaics. Solar PV in China is a growing industry with over 400 [companies](#). In 2015, China became the world's largest producer of photovoltaic power, narrowly surpassing [Germany](#).^{[1][2][3]} By the end of 2016, total PV capacity had increased to over 77.4 GW.^[4] [Solar water heating](#) is also extensively implemented, with a total installed capacity of 290 [GWth](#) at the end of 2014, then representing about 70% of the world's total installed solar thermal capacity.^{[5][6]} ⁽⁶⁾

RUAP believes that the costs of Solar to the householder is too high. We would support an inquiry into company credibility and investigate the most economical avenues of producing and sourcing more cost-effective solar products. Having said this, we also acknowledge that the use of solar products in this country has provide us with a thriving industry that has the ability to grow and provide jobs for many Australians.

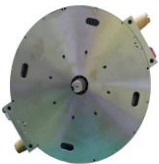
Steam - What is Steam?

Water once it is heated and the temperature rises releases vapour. The temperature at which liquid water turns to water vapour is called **the boiling point** of water. At sea level, this is 100 degrees C, or 212 degrees F. What's neat is that once you reach the boiling point, the temperature of the water will not increase any more. This is because, as more heat is added, more water molecules turn to steam, and you're not heating them anymore. Steam has a lot of energy. When you take the liquid form of water and heat it on the stove, you increased the energy in the water molecules. When you give them more energy, they get excited and start moving around more. It is a bit like when a person is energised they move around a lot more. This movement also causes the molecules to spread farther apart, so the volume of the gas is going to be much greater than the original volume of the liquid water you started with. As previously stated, this form of water is called water vapour, and it is very powerful stuff. So, the water has not disappeared, it is still nearby, but it's now in a gaseous form called **steam**.

Steam is Industrial

All that energy in steam makes it a very powerful and useful substance, and we can use it to our advantage. Steam can be used to generate electricity. For instance, in electrical power plants, water is heated by coal or natural gas, and the steam that results turns turbines that generate the electricity which powers our homes and offices. Steam has been around longer than humans! And yes, we have finally learned how to use steam for our own benefit. Since water occurs naturally, so does steam; we mostly find it because of **geothermal** activity which has been mentioned in detail earlier in this policy. Literally **geothermal**, means 'heat from the Earth,' geothermal energy comes from places on Earth called **hot spots**. These places where magma rises from Earth's interior are just what they sound like - places where there is **a lot** of underground heat.

Recent developments in technology have produced just what we believe is the beginnings of a range of motors and engines powered by liquids such as water/steam.



The Zired-Motor (7)

The Zired engine is a (newly applied for patent) rotary displacement machine. The motor can be turned in both directions (left or right) and also can be used for conveying or compressing. The engine impresses with its ingenuity. It has a simple design consisting of only five different, easy to construct, components (plus ball bearings and seals). The same device can be used without modification as a motor, pump or

compressor. This means that one can produce only one device with an enormous variety of possible applications. As a motor, the device behaves exactly like an electric motor, but the electric motor can only be driven by electricity. The Zired motor, on the other hand, can be driven with liquids or gases (this includes steam)

Rise up Australia Party encourages all such developments in this field, convinced that the production of motors and engines powered by renewable clean and cost efficient energy such as steam or water is a big step forward. We believe this is an industry that should be subsidized by governments. This would assist those that are passionate about researching and developing resources such as steam, encouraging them in developing steam powered equipment. These labourers should be funded in their endeavors to give the nation cost effective energy.

Oil

We are told, "that burning oil leads to massive pollution and greenhouse warming and nothing had been done to prevent its usage/growth". Yet, "Powerful oil lobbies run by massive industrial conglomerates like Exxon, Chevron, BP etc. have managed to kill legislation which would reduce the subsidies to the fossil fuel industry."

RUAP although committed to economical, clean and or sustainable energy believes that at this time, taking steps to move away from oil as an energy source would be unwise, having disastrous effects on the world economy

Oil is one of the most important commodities in the world playing an important part in some of the biggest industries like chemicals, transport, power, petrochemicals etc. High-energy density and easy availability has made mankind almost completely dependent on oil for most of his needs.

Advantages of Oil

- 1) **High Energy Density** – Oil has one of the highest energy densities which means that a small amount of oil can produce a large amount of energy. This makes it very useful as its high-energy density has made it the preferred choice for use as fuel in motor vehicles.
- 2) **Easy Availability, Infrastructure for Transport and Use** – Oil is widely distributed in almost all parts of the world. Also, there exists a massive infrastructure to transport oil to other places through ships, pipelines and tankers. This means that oil is available throughout the world.
- 3) **Crucial for wide variety of Industries** – Besides Transport, Oil is a critical component in a wide variety of other industries. It is difficult to think of a commodity which has such a huge role to play in a wide variety of human products from Vaseline, cloth, and medicines etc.
- 4) **Constant Power Source and Reliability** – Unlike solar and wind energy, oil can produce power 24/7 and is highly reliable. Oil engines are a mature technology and highly reliable to work with.

RUAP takes the position in this policy, that in all things we need to be balanced and be vigilant in our approach to the energy resources we use, therefore we have not dismissed all fossil fuels (as discussed above) from our options. We have taken the approach that they have their place in moderation in our over-all endeavours to produce clean, economical energy and create a sustainable ecosystem for the future.

(1) [http://www.santilli-foundation.org/docs/1.4912726\(Wazalwar-Tangde-Bhalekar\).pdf](http://www.santilli-foundation.org/docs/1.4912726(Wazalwar-Tangde-Bhalekar).pdf)

http://www.santilli-foundation.org/docs/FinalEdition_122015002_20150818.pdf

(2) How Geothermal Energy can cut up to 80% of the cost of energy use in the home ...

<https://youtu.be/IY3oGlgZRgI>

<http://www.renewableenergyworld.com/geothermal-energy/tech.html>

(3) <https://youtu.be/Jw08pr48dFU>

(4) https://en.wikipedia.org/wiki/Natural_gas#cite_note-46

(5) <https://arena.gov.au/about/what-is-renewable-energy/solar-energy/>

(6) https://en.wikipedia.org/wiki/Solar_power_in_China

(7) http://www.optimetron.com/?Products:Zired_motor

(8) <http://www.greenworldinvestor.com/2011/07/07/advantages-and-disadvantages-of-oil-cons-disregarded-by-powerful-lobbies/>

*** Study finds rising gas prices to blame for electricity bill hike, not renewable energy costs
A BLAME game has erupted over skyrocketing energy costs after a family business was forced to close due to a \$180,000 bill— and the worst is yet to come.**



Dana McCauley@Dana_Adele news.com.au ... JULY 13, 2017 3:00PM

