Newsletter

August 2014

CLEAN ENERGY CORPORATION AUSTRALIA

Welcome to our newsletter for August

Featured

Following last months Carbon Tax repeal, the Australian Prime Minister is continuing to pursue his ambition to abolish the Renewable Energy Target. We look into the forward thinking and successful carbon reduction initiatives being undertaken by the rest of the developed world and how they should be used as examples for Australia's renewable energy future.

Featured is a recent project completed for Australia's largest dog and cat supplies store and also a case study about how solar PV can benefit large commercial enterprise both financially and environmentally.

Global Initiatives To Reduce Carbon Emissions

Contributions By
Kit Man Chan

As a scientific consensus has developed around the existence of anthropogenic climate change, governments around the world have been taking steps to reduce their nations' carbon emissions. A variety of methods exist to help curb carbon emissions, and many are currently in use, including:

- Emissions Trading Schemes and Carbon Markets
- Renewable Energy Initiatives, increasing the amount of low-to-no carbon energy
- Energy Efficiency Targets
- Vehicle Fuel Efficiency Standards

The European Union has the longest running emissions trading system (ETS) in the world. In operation since 2005, the ETS is based on the idea of a "cap-and-trade" system and has been the European Union's key measure to reduce carbon emissions. Within the ETS, the EU sets a limit on the total allowable emissions for each emitter, the "cap" in "cap-and-trade." At the end of each year, the emitters, primarily factories and power plants, must deliver enough carbon allowances to the government to cover all of their emissions; otherwise they are subject to heavy fines. The "trade" comes in when a certain company's emissions are lower, or higher than predicted. If they emit less than expected, they may sell their extra carbon allowances on the ETS market for additional revenue, and if they emit more, they must purchase additional allowances from the market. This system has reduced emissions by nearly 10% since inception, and is projected to result in even higher savings as the market for carbon allowances grow and mature.

More recently, the United States has developed Renewable Portfolio Standards throughout the country. The standards require that a certain amount of renewable energy, sometimes up to 50%, must be incorporated into power grids by a given deadline, usually 2020 or 2030. The government has also supported the Renewable Energy Industry with a variety of tax credits and

adoption incentives for consumers, hoping to spur development in the near term. The most aggressive policy in the US for combatting climate change is President Barack Obama's recently announced Climate Policy. The administration has supported a significant increase in vehicle fuel efficiency standards, widespread energy efficiency programs, and most importantly, a plan to reduce emissions from power plants.

In China, the central government has overseen the development of a pilot program for the upcoming emissions trading system. Driven by recent environmental concerns, the country has also put restrictions on vehicle fuel economy and power plant emissions. Perhaps the most drastic effort by the world's largest emitter is the consideration of significant reductions in the amount of coal utilized by the country's many coal-fired power plants.

With countries like the US and China taking strides to limit carbon emissions, there is plenty of momentum for new climate policies around the world. In Australia, recent surges in solar power installations and the adoption of a Renewable Energy Target of 20% by 2020 have set the tone for progress on climate change. However, the recent repeal of the carbon tax, one of the most progressive of its kind, has stalled the country's prior advances. Without the carbon tax, the renewable energy industry is without a powerful ally, and the additional economic incentive for lower-emitting technologies.

Australia is certainly contributing towards the goal of reducing global carbon emissions, but without comprehensive and advanced policy initiatives like those in the USA and China, the country's impact will be limited. The hope lies in the continued expansion of solar power in Australia, providing abundant, inexpensive, and carbon-free power to a growing economy. This, paired with a new carbon tax and/or trading system to support the development of a cleaner electricity grid would place Australia at the forefront of international climate policy and usher in a new era of sustainable growth.

Power Purchase Agreements

Power Purchase Agreements

With our Power Purchase Agreements you can purchase electricity generated from solar and reduce your carbon footprint. In addition, you get huge savings on your electricity costs immediately and into the future.

Our Power Purchase Agreements provide the opportunity for property owners and operators to lock in a lower electricity rate long term and guarantee a lower rate than the normal utility companies.

To learn more about our Power Purchase Agreements, contact us on 1300 510 169.

Recent Projects

Commercial warehouse
Brookvale NSW

Clean Energy Corporation Australia recently designed and constructed a 20 kW solar PV system

at Australia's largest dog and cat supplies store located at Brookvale NSW.

The solar system consists of 80 solar panels spread over 200sqm of the property's concrete roof.

The system is expected to produce over 25,500kWh of electricity per year, which based on the business' electricity rates is equivalent to savings of over $6,300.

The system has been designed so that **100% of the electricity produced will be consumed on site** and not be exported to the grid. The system will provide the business with 31.5% of the business' electricity needs (based on current consumption habits). The business expects to achieve a **payback period of 4.18 years**.

Case Study

Large scale global enterprise - Energy saved today is an asset for the future

By James Cronan

This case study is theoretical and based on the following assumptions.

Location	Sydney
Annual electricity expenditure	over $200,000.00 based on
Electricity rates	**Peak $0.173 / Shoulder $0.122 / Off peak $0.078**
Consumption habits	2:5 ratio for night time / day time consumption 7 day business

A 300kW system would be recommended to best suite the above consumption and would produce the following:

Solar power annual production	364,600kWh	valued at $45,000.00 (approx.)
Offset	21.5%	
System payback	**8.13 years**	

This example assumes electricity rates for a customer whom consumes more than 160MWH per year.

For customers whom consume less than the above mentioned 160MWH ie pay less than $40,000 per year for their electricity, higher tariff rates are applied by your electricity and network provider. **In the case of customers consuming less than 160MWH per year, a solar system payback would be around 4-4.5 years.**

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