
Carbon Monitor

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NZETS Drifts as Compliance Returns are Due

Continued stability in the NZU means prices sub \$20.50 after two short weeks. Trading conditions have been relatively liquid, occurring between \$20.10 and \$20.50 on a spot basis.

There has been a slight increase in market activity as demand for NZUs leading into the May surrender date seem to be slightly out-stripping the current volumes of NZUs being made available for sale.

This has also taken place against a backdrop of higher CER prices (in NZ\$). A swift drop in the NZD/EUR exchange rate (0.5510 to 0.5410) has seen CER prices move further north to around NZ\$ 24.20 - a level which not only makes them a less attractive option for liable entities, but also closer to levels which have previously attracted more international interest for NZUs.

With just one month remaining until the first obligation date for liable entities, the key factors that could drive the NZU price;

- emitters need to purchase for surrender in May-2011
- the CER price in New Zealand dollar terms
- on going issue of NZU into the market for pre 1990 and post 1989 forest owners
- the extent to which holders of allocations are willing or compelled to sell

source: Westpac Institutional Bank

Carbon Credit Insurance Announced

Underwriter Parhelion has launched what it says is the first insurance policy protecting the value of carbon credits should the projects generating them be deemed ineligible by regulatory bodies.

Parhelion said that the product was created in response to its clients increasing worries over regulatory risk in the carbon market, and is the latest in a flurry of green insurance policies following offerings from [Munich Re](#) and [Aviva](#).

Under the UN's Clean Development Mechanism (CDM) and the EU's Emissions Trading Scheme, countries and companies can buy credits known as Certified Emission Reductions (CERs) to offset their own emissions and contribute to meeting reduction

targets. Institutional investors also purchase credits to sell on at a higher rate.

These credits are generated by emission reduction or renewable energy schemes approved by the CDM executive board under the Kyoto Protocol.

But Parhelion said that investors were unnerved by the EU's decision to outlaw credits from projects destroying industrial gases like HFC23 and the subsequent drop in value of those CERs.

The company said there was a significant risk that other credits could become ineligible as a result of decisions made by the EU, which damaged investor willingness to participate in this market.

Its new product, developed with insurance and reinsurance underwriting group Kiln, protects the value of the credits in these circumstances, which Julian Richardson, chief executive of Parhelion, said would improve market liquidity.

"This important new product ... was developed following requests from a number of clients concerned about this risk," he said. "Since the carbon market is entirely dependent on regulation, the ability to manage and transfer regulatory risk is key to participants' success."

Alice Chapple, director of sustainable financial markets at think-tank Forum for the Future, added that mitigating the risk of regulatory changes would encourage more participants in the market and therefore increase rates of emissions reduction.

"Policy uncertainty is one of the main barriers to investment in carbon emissions reductions. By reducing the policy risk, an innovative insurance product of this kind will give confidence to the buyers of CERs and support projects that are critical to the fight against climate change," she said.

"It is a great example of how imaginative approaches in the private sector can help to make carbon emissions reductions happen further and faster."

Clean Jet Engines Receive Carbon Credits under the VCS



In recognition of the fact that dirty jet engines are less efficient and burn more fuel Pratt and Whitney the engine manufacturer has recently submitted a standard for cleaning engines that receives credits under the verified carbon standard or VCS.

Aviation emissions are set to enter the EUETS shortly and are already subject to the NZETS.

Aviation operators willing to meet the standards of the VCS will be rewarded with VCU units. Those already operating in an ETS environment will benefit from reduced fuel use and therefore lower carbon charges.

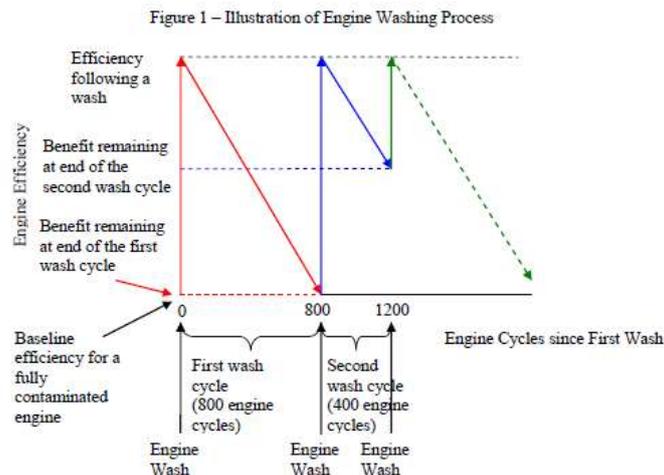
It is not immediately clear the extent to which this cleaning affects airline operational issues. However with the spiralling increase in fuel cost it may be a way of reducing these costs whilst reducing their GHG emissions.

This methodology was developed to calculate the emission reductions generated by washing jet engines. All engines become contaminated through normal operation leading to restricted airflow, higher exhaust gas temperature, and increased fuel consumption. By eliminating engine contamination, engine washings improve propulsive efficiency measured as a decrease in thrust specific fuel consumption or TSFC, resulting in decreased emissions of carbon dioxide (CO₂).

It is anticipated that the methodology will be used by airline owners of jet engines who wish to utilize on-wing jet engine washing as a means of increasing engine thrust efficiency and reducing CO₂ emissions. Jet engine washing technology service providers might also use the methodology to assist airline customers in overall engine emissions reduction measurement.

Figure 1 illustrates the general process of washing a jet engine. Once an engine is washed, it starts a wash cycle defined as the interval between two consecutive washes. As a result of the washing, engines will experience improved propulsive efficiency while in operation; the operation of an engine between one takeoff and one subsequent landing is called an engine cycle. As the number of engine cycles increase, the engine will become re-contaminated and the efficiency improvement realized by the washing will decline until the engine is washed again. The change in the efficiency improvement during the first washing cycle is tracked in red in Figure 1. This second washing terminates the first cycle and begins the subsequent cycle. The change in efficiency during the second wash cycle is tracked in blue in Figure 1. As demonstrated in Figure 1, washing cycles may not contain the same number of engine cycles for a variety of reasons, including:

Safety procedures – Some maintenance procedures prevent all engines on an aircraft from being washed at the same time. This reduces the risk that the same



mistake made on one engine will be repeated on all engines of an aircraft, thus reducing the chance that all engines will fail at the same time.

Scheduling – Due to time constraints, it may not be feasible to wash all engines on an aircraft at once. Also, as engines are routinely switched between airplanes, the optimal wash interval for one engine may be different from that of the other engine on the same plane.

Since the number of engine cycles is directly correlated to the change in efficiency following a washing, the average efficiency improvement realized during the washing cycle will differ. Taking into account the average efficiency benefit realized during the wash cycle and the amount of fuel consumed by each engine cycle in a wash cycle, the fuel savings can be calculated and converted to emission reductions. As an additional environmental benefit, the methodology uses a closed-loop system for the collection, filtration and reuse of water used to wash the engine. This both saves water (of particular importance in water constrained areas of the world where engines may be washed) and eliminates the potential contamination of soil and groundwater associated with non closed-loop engine washing.

Australia to Push Through Carbon Tax

It is widely reported the Australian Carbon Tax will be pushed through to commence in July 2012.

Public support according to polls is a low 30% whilst some 60% oppose the carbon charge. This in stark contrast to the 72% support in the past for the proposed emissions trading scheme called the CPRS.

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