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Carbon and emissions trading – the opportunity explored

A message from Rory Dyer exclusively for *Trader's Bulletin* members

My name is Rory Dyer, and I'm the Head of Trading at VER Carbon Trading.

Interest in carbon and emissions trading is growing very quickly at the moment. As with any new and dynamic market, it's important to get your hands on the facts, which is why I want to cover all the key areas in this report.

The 'bull market' phase of the stock market is officially behind us. Gone are the days of having 60-70% of your portfolio in blue chips. Banking and Insurance stocks (once the cornerstone of any portfolio) regularly move 30% up or down in a single trading day – not somewhere you want your hard earned cash to sit.

The bond market, which has traditionally been viewed as a 'flight to safety' is now anything but. As the US and Euro zone countries are having their credit worthiness downgraded and a number of developed nations look like they are going to default, the bond market should be treated with extreme caution.

The UK property market is being artificially supported by low interest rates which, in the long run, is completely unsustainable.

Having cash in the bank is no longer a viable option. Inflation sits at over 5% and record low interest rates mean that for every £100 in your account by the end of the year it is worth less than £95.

These are unprecedented times. With traditional asset classes on their way out there is a very real need for something new that can deliver considerable upside potential and I firmly believe that carbon and emissions trading is it.

Rory Dyer, enquires@vertrading.co.uk

Carbon market – where did it begin?

As outlined in Article 17 of the Kyoto Protocol, emissions trading allows countries to sell extra emissions allowances that they have not used to countries that exceed their targets. This has created a new commodity known as emission reductions, 'carbon credits'. Each carbon credit represents 1 tonne of carbon (CO_2).

Carbon trading

There are two main kinds of carbon credits.

- Certified Emission Reduction (CER) Minimum order size £250,000
  - Were the credit of choice by institutions, until now.
  - Trades on exchange, subject to volatility
- Voluntary or Verified Emission Reduction (VER) Minimum order size £5,000
  - Very low barrier to entry
  - Now being favoured by many major institutions HSBC, Barclays etc.
  - Cost effective
  - Trades OTC (Over the counter)

Where do carbon credits come from?

A carbon credit is an emission offset typically derived from a renewable energy project like a wind farm, hydro plant or solar panel project. Recently re-forestation and methane capture projects have also been able to issue carbon credits. Examples can be found here:

www.vertrading.co.uk/project-examples

One carbon credit offsets one tonne of Carbon ($C0_2$).

The amount of CO_2 produced by an individual, family or company is called a 'carbon footprint' and the number of carbon offset credits required to neutralise one's footprint depends on its size – the bigger the footprint, the more credits are required to offset it.

Offsetting one's entire footprint is known as becoming 'carbon neutral'. For example, if a haulage company has five lorries each emitting 1,000 tonnes of CO_2 on an annual basis they would need to purchase and retire 5,000 carbon credits to become carbon neutral.

The haulage company could, of course, buy 10,000 credits and retire half of them and become carbon neutral whilst holding the other half as an investment. This is what a lot of our clients are doing.

There are two main types of carbon credit, VERs and CERs. They both represent and offset one tonne of carbon but while CERs are generated according to standards and requirements of the Kyoto Protocol, VERs are independently verified by a third party according to criteria that confirm that the emission reductions are real, measurable and credible. VERs trade at a discount to CERs but are increasingly popular as they are viewed as a cost effective emission offset.

Although we offer a comprehensive range of emission offsets we feel by far the most lucrative opportunity lies in the purchase of VERs as opposed to CERs or EUAs.

> Prices of carbon credits will increase by as much as 42% by 2012, Barclays says.
>
> Source: Bloomberg news 14/03/11

Hydro Electric Plant, India

Type and category of the project

The project is a run off river hydro power project and categorised in Scope Number 1;

Sectoral Scope – Energy industries (renewable/non-renewable sources) as per Sectoral scopes related approved methodologies (version 07 Oct 05|12:34). The specified project is not a part of a grouped project.

Estimated amount of emission reductions over the crediting period including project size:

Over the crediting period of 10 years, project would generate 14681060 tCO_2e

Project purpose

Project activity will generate electricity using renewable hydro energy and sell it to a large power corporation. The Company has already been entered into a power purchase agreement (PPA) with the power corporation for this purpose. 70% of power at the northern grid of India is obtained by fossil fuels. The project activity involves generation of electricity by renewable sources of energy; it will reduce anthropogenic green house gas (GHG) emissions that would otherwise have been generated to supply power to the grid using fossil fuel.

Project technologies, products, services and the expected level of activity

VHEP is a run off river scheme with no storage dam upstream and downstream. The project, as envisaged, comprises 60m long, 17m high (above river bed) diversion barrage across the river, two intakes and two underground sedimentation chambers, 11.343 km long head race tunnel, an underground power station and 1.92 km long tail race tunnel and outfall works. The water is delivered to the power house through a steel lined pressure shaft. A surge shaft is constructed between the head race tunnel and the pressure shaft which would be used to regulate the flow. The project activity utilizes impulse type. In an impulse turbine, the power is generated due to a high velocity water stream striking the turbine blades, which are designed in the shape of cups. The cups move as a result of the impact in the same direction as the flow. The turbine shaft is coupled with the shaft of generator.

Two recent, significant developments.

1. European Union carbon tax

EU's top court adviser: "airline carbon cap is legal". European rules forcing all airlines to pay for carbon emissions are within the law, an adviser to Europe's highest court said recently in the latest stage of a bitter battle between the European Union and the aviation industry.

From January next year, all airlines will have to buy permits under the European Union's emissions trading scheme (EU ETS) to help offset the carbon emissions of flights that land or take off in Europe.

"EU legislation does not infringe the sovereignty of other states or the freedom of the high seas guaranteed under international law, and is compatible with the relevant international agreements" said the opinion from Advocate General, Juliane Kokott.

Critics of the EU rules have argued that under the 1997 Kyoto climate pact, countries agreed to address emissions from aviation jointly through the U.N.'s aviation body, the International Civil Aviation Organization (ICAO). More than a decade on, the talks have not yielded progress. Kokott said the EU was within its rights to take unilateral action.

European Climate Commissioner Connie Hedegaard welcomed the Luxembourg court's recommendation and added in a statement: "The EU reaffirms its wish to engage constructively with third countries during the implementation of the legislation."
The International Air Transport Association (IATA) said it was disappointed but that the debate was not over yet.

2. Australia agree a 'floor price' for carbon.

Aussie floor price $23 (£15). Current VER price £7.50 = significant upside potential

The European Commission considered following the example of the UK (and the proposed Australian scheme) and possibly install a floor price of 30 euros ($A41) a tonne to underpin its carbon market for the third phase from 2013 to 2020, and to ensure that sufficient investments were made in the clean energy sector. Miles Austin, the CEO of the Carbon Markets Investment Association said the EU should consider aiming for a 30 percent cut on 1990 levels by 2020 instead of the current 20 percent target because the economic recession has made it cheap to do so. Such proposals have been rejected by some countries because of the increased cost. Bloomberg said the UK committee is exploring ways of co-operating with other nations to achieve a 'fair deal' on climate protection and whether the EU, which runs the world's biggest greenhouse gas market, can sustain a credible carbon price without a global climate agreement. "The EU needs to consider what it really wants to do with the EU emissions trading system: if they want something that works and to be a world leader or if they want something that's essentially oversupplied and won't deliver," Imtiaz Ahmad, an executive director at Morgan Stanley representing the International Emissions Trading Association, told the hearing.

Austin said boosting EU prices by linking with other carbon markets is unlikely anytime soon, said Austin. "In the U.S. they were getting profoundly nervous about anything going over $20 a ton," meaning there would be little incentive for a programme there to link with the EU market, he said.

Australia, which has a fixed price of $23/t, rising to $29 a tonne by 2015, and a floor price of $15/t thereafter, is also seeking to link with the EU scheme.

Gold vs Carbon

There has been a lot of talk over the last year or so about gold as an investment. While gold still has attractive fundamentals it has had a stratospheric rise in the last five years – usually very few asset classes can continue to rise exponentially for so long.

As gold prices have risen and stayed buoyant this has led to a large increase in investment in gold mining. Like most cycles when prices are cheap very little investment is made in the exploration for new gold fields. While gold prices have been rising in the last seven years a number of new large mines and production facilities have come on line. This has led to an increased supply of gold to the market (the old addage of make hay while the sun shines). Large buyers of gold such as China have seen their economies cool and will have less cash available in the future for gold purchases.

Carbon prices have remained very defensive throughout the financial hiccups of the Euro Zone crisis. Right now the governments that are struggling need all the new money and taxes they can get and carbon presents an effective new revenue stream for them. This is bullish for carbon prices over the course of the next 18 months. At the same time governments around the world will see selling gold as a quick and easy way to raise fresh capital.

Carbon provides investors with an alternative asset class which has significant upside potential.

Why do we feel they could go up in value significantly?

There are a number of reasons why the value of these credits could increase.

1. Supply and demand – the single biggest factor that moves markets. As new legislation is brought in, demand will continue to grow.
2. VERs and CERs could merge into one type of credit, which would get rid of the current disparity in pricing. If prices were to meet in the middle, VERs could go from £7.50 to £11.
3. The right people are involved: governments, institutional investors, hedge funds and corporations are all investing in this market. The smart money is always in first – this is known as the stealth period where investors quietly build their stakes.
4. A growing and very real demand for new asset classes with upside potential will mean we continue to see money pouring out of equities and bonds and into carbon credits.
5. Everything is pointing to more 'green' taxation. The tax revenue generated will be pushed into projects such as these.

Large purchases

The Co-Operative Group recently announced they will need to purchase around £10 million worth of VERs over the next 12 months.

HSBC Holdings Plc says that the global market for low carbon energy will triple to $2.2 trillion by 2020.

Source: Bloomberg.com 06/09/10

A very interesting article on what the airlines will be purchasing can be found here: **www.thenational.ae**

Dumfries and Galloway Council:
www.dgstandard.co.uk/dumfries-news

Case study: Easyjet/Ryanair

Whenever I speak with new customers I usually ask whether he or she has traded carbon credits previously. Most will reply no.

I then ask whether they have ever flown with Easyjet or Ryanair, to which 90% of people say yes. I then respond by telling them that they have probably purchased carbon credits without them knowing.

> 4,000 airlines will be forced to adhere to emissions targets or buy carbon credits to cover excess emissions.
>
> Source: General news 08/03/11

When booking a ticket with these companies, customers are given the option to offset their carbon footprint from their impending flight by paying, for example, an extra £3.

The airline company uses this cash to go out into the market and purchase carbon credits to offset their own carbon footprint. Great idea really. By making the customer feel they have a sense of duty and by giving them the impression they are behaving in a socially responsible manner they can use YOUR cash to offset their own footprint. Remember, there are levies and taxes payable on CO_2 emitted, so what a great idea –pass this onto customers without directly increasing air fares. While Easyjet don't directly 'profit' in monetary terms they do benefit from the amount of emissions as a company they manage to offset.

Cap and trade

In the efforts to reduce, control and, one day, eliminate harmful emissions, each member state of the EU currently receives an annual emission allocation that is then divided between its worst emissions-producing companies. These companies are then legally obliged to comply with their set emissions targets. If a company comes in under its set target, it can sell its excess as 'carbon credits' to other companies that have overshot their targets. If a company exceeds its permitted levels, it has to pay a penalty and buy credits to make up the difference. Right now, with an abundance of carbon credits available, their price is relatively low. However, with the second phase of the programme, 2008-2012, now in play and a reduced amount of credits available and ever more stringent emissions targets, prices are set to rise.

What are the main risks?

- The impact of climate change isn't as big as expected and, subsequently, there is no longer as much demand to offset emissions.
- The carbon market is still in its infancy so liquidity is still growing.
- Climate change proved to be myth and carbon offsets are no longer required.

Why buy?

Carbon tax – how this translates into an opportunity for VER holders

It could be argued that emissions and climate change have provided world governments with the single biggest excuse to impose a new form of taxation on companies and individuals. There is plenty of evidence to support the claim that climate change does not pose the extreme threat that the governments and media lead us to believe. Consequently it could be argued that climate change is nothing more than scare-mongering on the part of the ruling classes.

Slowly but surely we are all being conditioned to believe that climate change is an extremely serious problem and we must act now to avoid a catastrophe. Of course this fear is highly beneficial as it means we are less reluctant as a nation to not comply with any 'green taxes' that our governments are 'forced' to introduce. Some of you will no doubt be outraged with my opinion, but the reality is that it is truly impossible for the general public to really know for sure to what extent emissions are damaging our world. Climate change has always been here, Earth has undergone huge changes over time. The real and greatest threat is over-population – 18% of all carbon emissions comes from livestock, while just 13% can be attributed to vehicles.

A fortnight ago the Guardian said 'Australia's top 500 carbon emitters will be forced to pay $23 (£14.61 approx) per tonne from July next year until a full carbon trading system is introduced in 2015 under controversial plans announced by prime minister Julia Gillard in July. Europe and Australia are currently in talks to link both their carbon trading schemes.' **www.guardian.co.uk/environment**

Head of the International Energy Agency expects carbon to rise to $175 a tonne by 2050.

Source: General news November 2010

At the current tax rate of $23 (£14.61) purchasing a VER Carbon Credit at around £7.50 would seem to make huge commercial sense. As new legislation is introduced we would like to see demand for offset products such as VERs grow significantly. As demand grows so does liquidity. Increased liquidity could mean VERs become an exchange traded product and not OTC (over the counter) as they are at present. The value of a carbon credit is influenced by the amount of tax levied on the carbon or other greenhouse gas emissions, the penalties provided for exceeding an agreed upon emissions target, the cost to achieve the reduction, and the traditional supply and demand of the reduction product in question.

Purchasing and holding VERs whilst this market is still in its infancy could provide significant upside potential to the holder as taxes become more widespread and the levels increased.

How do I get involved?

It's very simple. Once you know how many credits you would like to purchase or if you have any questions at all simply email **enquiries@vertrading.co.uk** or call **0203 086 7035**

Becoming a client and building your own portfolio in alternative investments is very straight forward. We will issue a purchase order for you to sign and and return and once funds are cleared we allocate you your credits.

The current indicative spot price for VERs is £7.50 per credit as defined by JP Morgan Climate Care. Depending on market conditions we are sometimes able to offer better prices for transactions over a certain size.

Step 1

Calculate how many you need.

The current spot price for VERs is £7.50 per credit and our minimum order size is 500 credits.

500 VERs @ £7.50 = £3,750

1,000 VERs @ £7.50 = £7,500

2,000 VERs @ £7.50 = £15,000

For orders in excess of 5,000 VERs please contact us for the best possible prices.

Contact us here

Step 2

We will issue you a purchase order for you to sign and return to us along with scanned copies of:

- proof of address
- driving licence/passport.

We require these for anti money laundering purposes.

The purchase order contains the banking details of our wholesaler for you to make payment. We use an FSA regulated company to handle ALL client funds for your protection.

VER Carbon trading charge a **£7.50 commission** per transaction whether you buy or sell.

Step 3

On receipt of your funds and paperwork our wholesaler **www.cn-investments.com** will issue you with login details to the APX registry where your credits are held.

They will also issue you with a 50 page PDD document which outlines all the information on the project your credits are derived from – **see example PDF here.**

Who oversees/regulates this product?

Our wholesaler who handles all client funds has been FSA Registered since 2004. The purchase of VERs is not a regulated investment however we use an FSA regulated counterparty to settle your trade. This is for your complete peace of mind. Much like the tech boom there are hundreds of companies trying to enter the carbon market hence it is important to consider who to deal with.

All our credits are VCS Registered and sourced from projects that are fully accredited by the relevant bodies. Every VCU can be tracked from issuance to retirement in the database, allowing buyers to ensure every credit is real, additional, permanent, independently verified, uniquely numbered and fully traceable online. VCS is a comprehensive quality-assurance system for carbon credits issued in voluntary markets.

Projects use Verified Carbon Standard requirements to ensure their carbon reductions meet accepted quality standards and are independently verified, uniquely numbered and transparently listed in a central database. VCS is among the most widely used carbon accounting standards by projects issuing credits in voluntary markets.

http://www.cn-investments.com

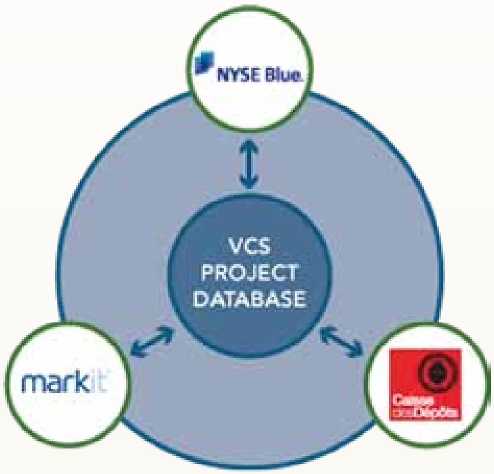
http://www.v-c-s.org

Why use VER Trading to enter the carbon market?

- Our counterparty Carbon Neutral Investments, who handles all funds and settles trades has been FSA registered (403428) since 2004.
- All our credits are VCS Registered and derived from real and verifiable projects across Europe and the Far East.
- Your credits are held on the relevant registries in a nominee account. We do not shareyour details with other companies.
- Our personal management team have diversified expertise. Most of you know already know my background. My colleagues have all previously held/still hold senior positions at blue chip firms within the industry.
- We do not cold call. Quite simply we don't agree with it and we don't need to do it.
- We provide quality research, market updates and full support to existing and potential customers.
- VER Trading prides itself on an open door policy. So, come and visit at; Cardiff Bay or Mayfair, London.

I've purchased credits now what?

Your credits are held within a nominee account (for your protection) on one of the registries on the diagram below. You are free to transfer or retire them as you wish as you are in complete control. As liquidity increases over the coming months and years it could be possible for carbon credit holders to trade these online via a web based exchange. A number of these are currently in development. This is not a product for those who want short term gains, the true potential and profits may only be realised as legislation changes and this market develops much like many other commodities those who make the real returns are in at the market's inception. Our analysts are looking at a 2-5 year time-frame.



NYSE Blue: a leading environmental market infrastructure provider, subsidiary of New York Stock Exchange

Caisse des Dépôts: a leading French financial institution and developer of CO_2 registries in Europe

Markit: a leading international financial markets meta-registry

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Disclaimer

Any prices of carbon credits shown are indicative only and are based on current exchange rates. Carbon credit prices can go down as well as up. It may be difficult to obtain true market prices for VERs as many are transacted "over the counter" and as such values may vary from reseller to reseller. Currently VERs are not as liquid in comparison to the compliance EUA credit market. There may be a big difference between the buying and selling price of carbon credits. Trading in carbon credits involves risk. You may get back less than your total outlay. Any growth shown or suggested is a projection only and cannot be guaranteed.

Whist efforts have been made to ensure that the data and other information in this report are accurate, no warranty as such can be given and, additionally, information applicable to the carbon credit markets is subject to change.

The purpose of this report is solely to provide introductory information and some background to the specific topic. It is not intended for use directly or indirectly in market forecasting or for making decisions.

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VER operate in the physical delivery of the carbon credits to intended buyers, who have agreed to purchase the asset. They are not traded, VER only participates in the selling of the VCS Verified Carbon Credits (VERs).

The credits are held in Nominee account, on behalf of the purchaser.

The VCS Project Database is powered by NYSE Blue which is a leading provider for environmental and energy markets, specialising in renewable energy and greenhouse gases.