Voluntary Carbon Markets

LSE: Thinking outside its box

By Nigel Hawkins

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Executive summary

- In terms of environmental policy, the quest to cut carbon emissions dramatically and to achieve net zero remains high on the political agenda, although the war in Ukraine – and specifically the issue of gas supplies – may weaken these commitments.

- In any event, the environmental performance of China and the US – responsible, between them, for around one half of global emissions – will be key. In Asia, where ca.85% of energy consumption is currently being met by fossil fuels – there are ca.4.6bn energy users – the carbon emissions impact of these two figures is self-evident.

- In the wake of Singapore's establishment of Climate Impact X (CIX), the London Stock Exchange (LSE) is planning to launch its own Voluntary Carbon Market (VCM) initiative, which aims to both attract more institutional investment into low-carbon projects and to establish a more credible benchmark for trading in the carbon credit (CC) market. The LSE's VCM proposals are out for consultation until 11 July 2022.

- The VCM initiative presents a major market opportunity for the LSE, as it seeks to establish a more credible – and less volatile – carbon price. With the LSE poised as the financial ringmaster, viable carbon-saving projects should stand a better chance of securing long-term investment.

- Individual CC regimes will be pivotal in enabling potential projects to create offsets and to move to a financial close. At present, most CCs are generated in the EU, the US, the UK, Canada, China, Japan, New Zealand, South Korea and Switzerland.

- The LSE has identified quoted closed investment trusts as its target market. In paragraph 16 of its recent announcement, the LSE stated that a "fund's investment strategy should have a focus on investing in carbon reduction and/or removal projects that can be expected to yield CCs". Furthermore, paragraph 17 specifies a three-year investment window before which at least one qualifying project should have been closed.

- The most obvious qualifying projects probably lie in energy generation. Replacing a 100MW coal-fired plant with a solar plant, the different name-plate capacity of which enables it to generate the same amount of output in a normal year, would be an obvious case in point.

- The transport sector, the largest carbon emitter in the US, and the agriculture sector also offer real opportunities. In the former's case, progressively switching to clean aviation fuels is an obvious option. In the case of the latter, finding viable projects offering decent financial returns, along with the required environmental benefits, may be challenging.

- In terms of countries involved in VCM projects, there is likely to be a real mix. Many third-world countries may struggle to deliver a qualifying project, although those with urgent energy requirements may be prevailed upon – in a few cases – to expand their use of renewable power, especially wind and solar generation.

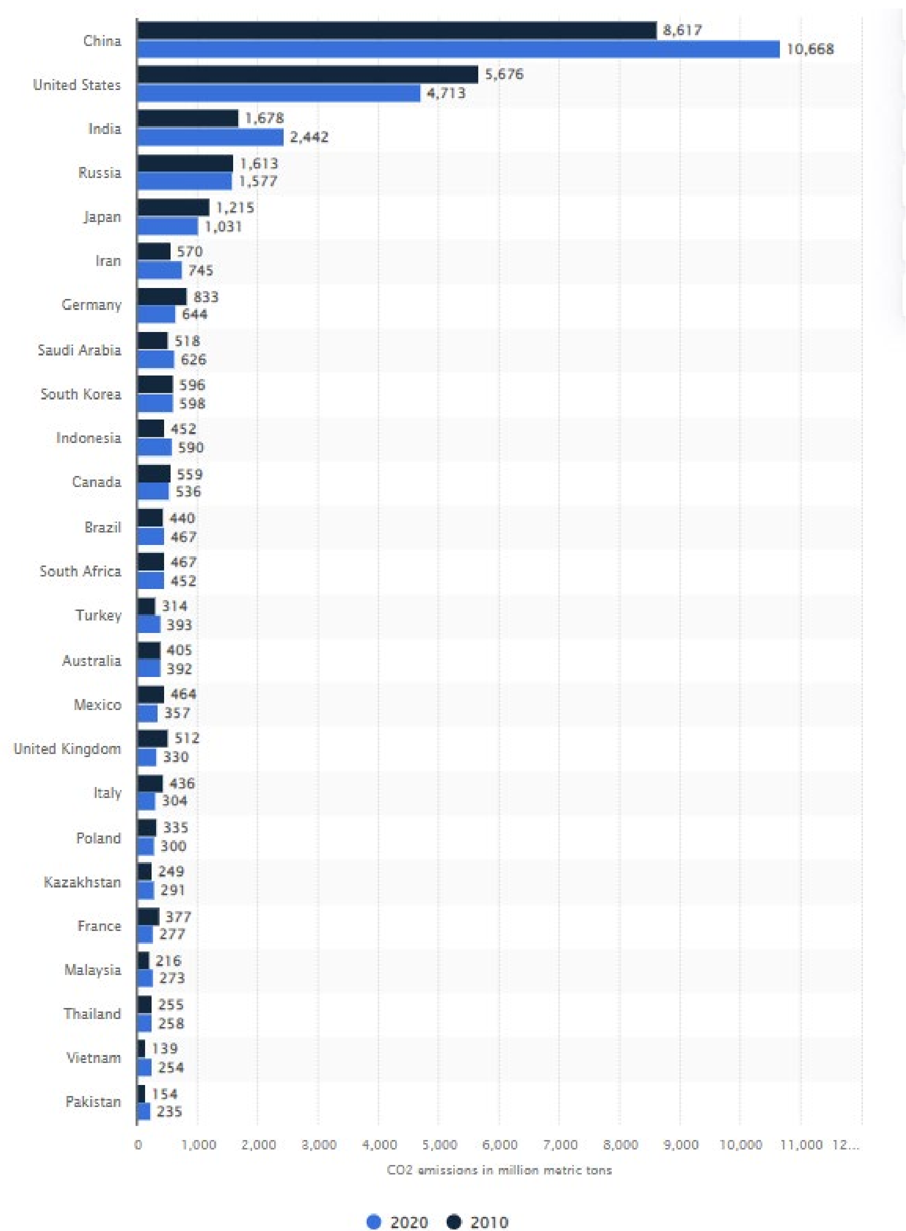
Background

The climate change/net zero driver

Undoubtedly, the background to the LSE's VCM initiative is the issue of climate change, which has moved up the political agenda quite rapidly in recent years, along with net zero, which the UK seeks to achieve by 2050.

The chart below from Statista lists the most polluting countries, and identifies where major carbon emission reductions are most needed.

Carbon dioxide emissions in 2010 and 2020, by select country (in million metric tons)



Source: https://www.statista.com/statistics/270499/co2-emissions-in-selected-countries/

Between 2010 and 2020, Chinese carbon emissions grew by 24%

The data above confirms that China, carbon emissions of which have risen by 24% in the past decade, and the US, between them, account for around half of global carbon emissions.

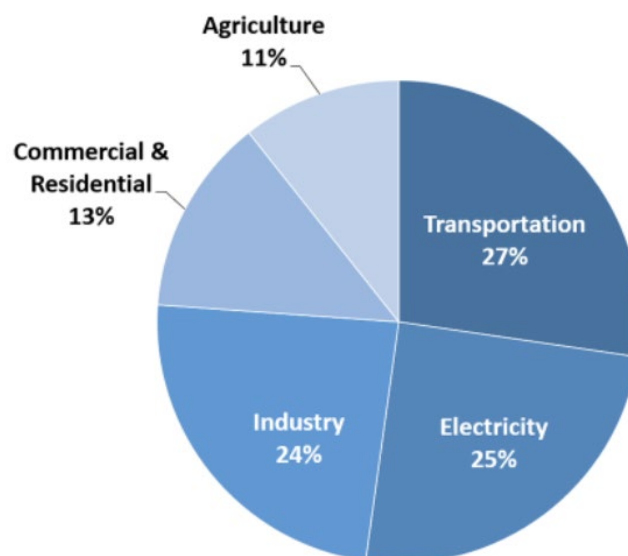
China's massive coal capacity

Clearly, China's extensive coal-fired generation capacity – amounting to more than 1,000GW – is the key factor. Given the recent very sharp increases in gas prices, markedly more output should be expected from China's coal-fired generation portfolio over the next few years.

Transportation a major US polluter

In the US, as the Environmental Protection Agency (EPA) pie chart below highlights, transportation is the largest carbon emitter. In recent decades, US dependence on coal as a fuel has fallen materially – to the benefit of its emissions record.

Total US greenhouse gas emissions by economic sector in 2020



Note: total emissions in 2020 = 5,981m metric tons of CO_2 equivalent. Percentages may not add up to 100% due to independent rounding.
Source: epg-gov/ghgemissions/sources-greenhouse-gas-emission

The appeal of CC offsets

To cut these emission levels, financial incentives are key, along with the necessary pressure on the political front, especially in respect of China. Offsets via the evolving CC market are one such initiative.

LSE targeting closed investment trusts

By enmeshing it within the financial environment, the LSE seeks to make projects more viable, in the hope of securing materially higher funds from quoted closed investment trusts, where – it is believed – there lies a "wall of money" suitable for this type of investment.

Target countries

At a general level, many countries, whether in the first or third world, fit the required categories. Deploying CCs, as a policy, is far further ahead in the first world, so that renewable projects, whether in the power sector or outside it, may well qualify under the LSE's VCM strategy.

CC regimes mainly in the first world

Currently, many countries are assessing their CC opportunities. Among the existing CC-generating countries are the EU, via carbon trading, the UK, Canada, China, Japan, New Zealand, South Korea, Switzerland and the US.

Replacing old coal-fired plant with renewable plant is a priority

Beyond the first world, the VCM policy does offer real opportunities, especially in third-world countries where outdated coal-fired plants need to be replaced. Choosing the renewable option has many advantages, although – in many cases – the need for base-load power or the ready availability of competitive fossil fuels, such as gas, may eradicate the anticipated CC-generated benefits.

In the agricultural sphere, too, African countries may well be able to develop projects that remove, or at least reduce, carbon emissions.

Target sectors

The base-load issue

Power projects, especially those replacing coal and – to a lesser extent – gas, offer the most obvious target for the LSE's VCM strategy. However, the need for base-load output, something that most renewable sources cannot offer, may be a major stumbling block.

Assessing the carbon saving should be straightforward

However, the straightforward replacement element, whereby a new solar or wind plant simply replaces an old polluting coal-fired plant, does offer attractions. Measuring the average annual carbon emissions from the latter should enable an accurate CC reduction figure to be established.

Many African countries backing gas

In many African countries, there are abundant gas supplies, which make gas-fired generation relatively attractive. Several African countries, including the Democratic Republic of Congo (DRC), Nigeria, Cameroon, Equatorial Africa and Mauretania, have recently confirmed their policy to invest aggressively in gas-fired generation plant.

Soaring gas prices could change thinking

Whether the recent surge in gas prices – the gas input costs, even pre the swingeing price hikes of the past nine months, were already very considerable – causes these planned investments to be substantially curtailed remains to be seen. In some cases, CC-backed renewable power projects may offer better net returns.

Challenges for agriculture

The LSE's VCM initiative is reputedly particularly keen to focus on agriculture projects, many of which are quite diverse. Currently, far higher food input costs, such as fertilisers, are pushing up food prices, while Ukraine's grain exports (Ukraine is a major supplier to the Middle East, in particular) are being severely curtailed.

The need to embrace big agri

A major offensive to persuade the world's largest agricultural businesses to become more aggressive in cutting their carbon emissions may be necessary. These businesses include such well-known names as Cargill, Bayer (since 2018, the owner of Monsanto), Yara (the former Norsk Hydro) and the Swiss-based Syngenta, *inter alia*.

Unleaded petrol success story

On the transport front, extending the use of low-polluting fuels remains key. A major effort in recent decades to replace heavily leaded petrol with the unleaded variety has proved highly successful. However, the switch to genuinely clean fuels needs to continue.

Can airlines step up to the CC fuels plate?

While several well-known airlines have adopted some non-polluting fuels in recent years, including Virgin Atlantic, this initiative has been on a very modest scale. It may well be that some airlines may be able to put together – in time – a robust fuel conversion package that qualifies for CCs.

Rio Tinto's shipping trials

And, on the shipping front, Rio Tinto will begin using recycled cooking oil to help fuel one of its iron ore tankers; this initiative is part of a trial to reduce the carbon emissions from its shipping operations.

LSE – the need for a template

Many outstanding CC issues

For the LSE's VCM scheme to prosper, resolving some of the issues relating to CCs is necessary. The LSE has been forthright in its determination to preside over a properly managed – and audited – CC eligibility regime.

One central issue is determining how the level of carbon reductions should be calculated following the commissioning of new carbon-free investment.

A simple case would cover an old coal-fired plant, which was being replaced by a new solar plant. A like-for-like replacement would assess the carbon emissions of the former over a defined period – say of one year.

The one-tonne benchmark

Given that, according to the US-based EPA, approximately one tonne of CO_2 is produced by a typical coal-fired plant for each MWh of electricity that it generates, the emission savings should be considerable. By way of comparison, emissions from gas-fired plants are ca.40% of the coal-fired figure.

LSE's resolve to regulate effectively

At a more general level, the LSE remains resolute in its determination that its VCM proposals should be properly regulated. It seeks to avoid becoming involved – directly or indirectly – in any illegal carbon trading schemes: some have already resulted in successful criminal prosecutions.

REIFs offer food for thought

In assessing the potential of its VCM proposals, especially with regard to the appetite for institutional investment, the LSE may well focus on the expanding Renewable Energy Investment Trust (REIF) sector, which is now worth more than £15bn.

Renewable sector fundraising on a roll

Currently, there are 22 quoted REIFS, which have raised over £6bn of new funds since January 2020. Elsewhere in the renewables space, FTSE 100-quoted SSE recently confirmed its planned acquisition of ca.3.9MW of onshore wind capacity from Siemens Gamesa Renewable Energy (SGRE) at a cost of €580m.

Among the REIFs, the two leaders are Greencoat UK Wind and TRIG, with market capitalisations of £3.5bn and £3.2bn, respectively. Virtually all the investment by the 22 REIFs has been in the EU, the UK or the US.

Possible models

However, there are exceptions, and two recently floated REIFs – Victory Hill GSEO and Thomas Lloyd Energy Impact (TLEI) – merit particular mention in terms of providing a suitable template for a typical LSE-backed renewable energy investment, albeit without the specified CC element. Both REIFs have invested outside the first world, and have been able to report a solid share price performance since their flotations, along with retaining a decent premium to their NAVs.

Victory Hill in rural Brazil

A key element in the strategy of Victory Hill GSEO – currently capitalised at £360m – is to undertake "direct investments in energy infrastructure that have a high impact value and align with the United Nation's Sustainable Development Goals". In implementing this strategy, Victory Hill GSEO has recently confirmed a $63m commitment to fund the construction of 18 remote distributed solar generation projects across 10 Brazilian states with a capacity of 75MW.

Thomas Lloyd in the Philippines

TLEI, with a market capitalisation of £141m, claims to be "the first and only impact-focused company on the LSE dedicated to sustainable energy infrastructure projects aimed at helping to reduce Asia's significant greenhouse emissions". Recently, it has announced its first acquisition: a 40% stake in the 80MW Negros Island Solar Power (NISP) solar portfolio in the Philippines.

81,330 tonnes emissions saving

In assessing this project, TLEI Chair, Sue Inglis, stated "…NISP will provide clean electricity to 127,000 people, avoid the production of 81,330 tonnes of CO_2 and generate first year dividend income which will support the target dividend in 2022". Such a scenario hits key stakeholder priorities on several fronts.

TLEI also proposes to acquire a 43% economic interest in Solar Arise in India, which owns seven solar plants with a total capacity of 434MW.

Mechanics

The financial mechanics for investors are key

Clearly, with the LSE's proposals out for consultation, it is difficult to be precise about how the VCM investment might eventually work, especially in terms of some of the technical details.

However, as far as potential investors are concerned, the following financial issues are particularly relevant:

- **Liquidity:** Central to the LSE's VCM proposals is its quest to make the carbon emissions market more liquid. The investment company (IC) model is eminently suitable for creating a viable structure for seldom-traded assets.
- **CC requirements:** Some corporates will have a long-term need for CCs; as such, they offer an obvious target for holders of CCs. Corporates with substantial pension fund surpluses or large tax credits have attracted similar interest in the past.
- **Audit:** For investors, it is paramount that the CC figures are accurate; hence, the LSE has been insistent that independent audits of CCs – and, importantly, how they are calculated – are essential.
- **Investor returns:** The LSE has indicated that not only can dividends be paid, but that there will also be scope for CCs to be monetised as "in-specie" payments; for some investors, the latter may offer real attractions. Monetised CCs will probably be more volatile than a standard income-based dividend stream.
- **The CC kicker:** For some corporate investors, the ability to receive CC "in-specie" payments may offer notable financial advantages, some of which will be tax-related; hedging opportunities will also be available.
- **Share classes:** While varying share classes for leading FTSE stocks, as issued by Shell, are often frowned upon, there is less of a constraint for more niche investments – a scenario that should benefit the LSE's VCM proposals. It is easy to envisage more than one share class being issued that perhaps includes a proviso that, while both classes would be eligible for dividends, only one class would receive an annual CC "in-specie" payment.
- **Balance sheet treatment:** In time, CCs may be regarded as a balance sheet asset, on a similar basis to tax credits. In the longer term, some leading corporates may treat CCs accordingly.

Clearing the legal path for quoted closed investment trusts

During the consultation process, these and other technical financial issues will be discussed. In the final analysis, the key will be to provide sufficient investment incentives to persuade quoted closed investment trusts to participate in the VCM market – and to provide a legal framework that enables them to do so.

Opportunities

Replicating the Singapore model?

Undoubtedly, the rapidly developing carbon market, with its various flaws – volatility included – offers real opportunities for the LSE. This feature was also highlighted by the Singapore authorities, who recently established their own CIX market.

Improving the price-setting element

Although carbon trading has been a feature of the EU for some years, it is widely seen as a poor – and potentially misleading – carbon price setter. Price movements are erratic, volumes are often too low and market manipulation has, at times, been alleged. Furthermore, the involvement of major institutional and corporate investors has been limited.

However, it would be illusory to believe, for the moment at least, that carbon pricing could become efficient in the near term. Even the Brent oil price – for decades the pillar of North Sea oil valuations – has been criticised of late for being unrepresentative of sector movements.

Investors may be eligible for recurring CC stubs and a dividend

Nevertheless, for investors in quoted closed investment trusts, without doubt, there will be opportunities to earn decent dividends from a well-regulated holding, as well as "in-specie" CC payments, which – in equity markets, especially where takeovers are concerned – could be compared with recurring stub payments.

Conclusion

Consultation ends on 11 July 2022

Given that the LSE's VCM proposals included various broad-brush aims and aspirations, it will certainly be interesting to see how the final set of market rules for VCM's evolves. The consultation period ends on 11 July 2022.

Analysing the "guinea pigs" will be pivotal

Even more interesting will be the identity and the nature of the initial CC-based projects – a form of financial "guinea pig" – that eventually emerge, along with gauging the level of institutional support.

About the author

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Nigel specialises in the energy sector, with a particular focus on the expanding renewable generation market, in both the UK and overseas, about which he has written several reports assessing the sector's finances. He has been involved in analysing the utilities sector since the 1980s. He covered the privatisation of the water and electricity companies for Hoare Govett between 1989 and 1995. Subsequently, he researched the UK and EU telecoms sector for Williams de Broe. He has also written many feature articles for Utility Week magazine since the mid-1990s.

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