Industry in Focus

The race is on: commodity traders sprint into 'clean energy' markets

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Contents

The race is on: commodity traders sprint into ‘clean energy’ markets

Energy traders are poised to reap the benefits of the transition to a low carbon economy and growth in ‘clean energy’ markets:

Carbon markets globally are expanding, including demand for voluntary carbon credits, as corporates look to fulfil their net zero pledges.

Clean power markets are developing, as renewable energy penetrates more deeply into established electricity markets and grows into new domains.

‘New energy’ commodity markets are emerging, with the likes of critical minerals and hydrogen potentially displacing the dominance of conventional hydrocarbons.

And oil and gas operators seek sustainability (in the context of the net zero agenda), given the importance of gas to complement renewable power generation.

This market growth is underpinned by the alignment of net zero and ESG (environmental, social and governance) factors impacting corporate fundraising, as the global economy seeks a rapid pathway to decarbonisation. However, there are risks for traders to manage, such as greater carbon regulatory intervention and reputational risk. Nevertheless, those traders who can embed ESG into their operations, develop the technology road map to capture and analyse relevant data and deliver all this with the right people, will be best placed to break away from the pack.

PwC and IETA (International Energy Trading Association) collaborated to interview a number of trading entities. These ranged from independent traders to the trading arms of international and national oil companies and energy utilities.

The main themes from these interviews are captured in this paper.

The trading companies we interviewed who agreed to be referenced were: bp, Engie, Gazprom Marketing and Trading, Mercuria, OQ, SmartestEnergy, TotalEnergies, Trafigura and Vitol.

We would like to thank all the companies we interviewed for their contribution and perspectives.

The energy transition is creating new markets and trading opportunities

As the energy transition gathers momentum, our interviews with leading traders identified a number of emerging opportunities:

1 Growth of carbon markets

Across the board we are seeing strong growth in carbon markets. In Europe the EUA (EU Allowance) price under the EU ETS (EU Emissions Trading Scheme) has more than doubled since the beginning of the year to break through €85 in December 2021. The EU also launched its 'Fit for 55' reform package, which included the proposal for a carbon border tax (Carbon Border Adjustment Mechanism). Additionally, the Western Climate Initiative, which administers the shared emissions trading market between California and Quebec, achieved record prices at the November 2021 auctions. These prices in the compliance markets have generated strong interest from traders.

In addition, the voluntary carbon market has witnessed robust growth over the last 18 months. It is driven by demand from companies seeking to compensate for emissions in their business operations that cannot be avoided or abated cost effectively, by purchasing carbon credits generated from projects that reduce or remove emissions elsewhere.

According to Barclays research, the size of this global market is relatively small, some US$500 million. However, Barclays estimates this market is set to grow some 30% year-on-year, reaching US$250 billion by 2030 and potentially US$1 trillion by 2050, as more and more companies seek to fulfil net zero emissions pledges.

Traders are ideally placed to help grow this market, by driving liquidity, providing market access and relevant products to help corporates compensate for current emissions, whilst they reduce emissions in their value chains on their transition to net zero. As one of the traders succinctly articulated.

> **"Environmental products [namely carbon credits] are the bridging products in the transition.**

2 The growth of clean power markets

More broadly, the interviewees highlighted the opportunities in trading clean power, as the electrification of energy markets expanded. As corporates increasingly seek to decarbonise operations through renewable power purchase agreements (PPAs), this in turn is driving growth in clean power trading.

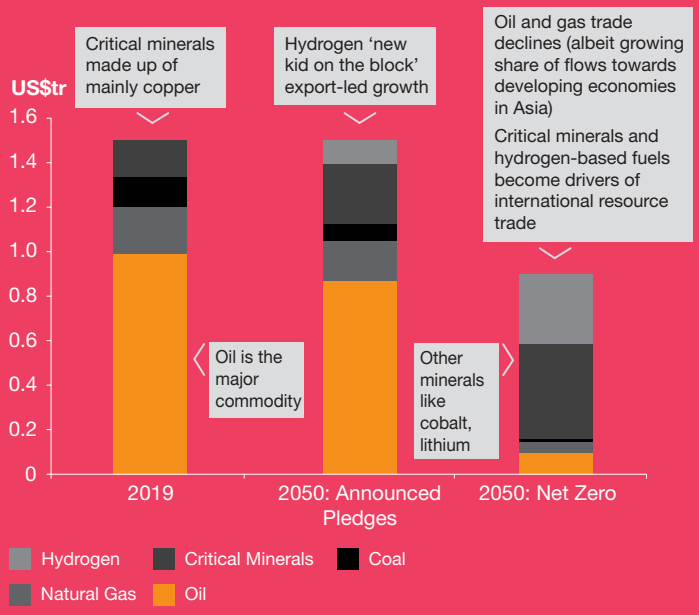
However, traders are not just upping their game in clean power trading. They are also investing directly in renewable assets and building up a 'green' asset base. Vitol for example, is investing in clean energy projects and is allocating some US$1 billion to invest in renewable projects including wind, solar and renewable natural gas projects. Mercuria is also partnering with CWP Global to build US$2.2 billion of renewable energy projects, generating some 2GW across solar, wind and battery storage in southeast Europe. Trafigura formed a joint venture with IFM Investors to create Nala Renewables, which seeks to invest in 2GW of solar, wind and power storage projects.

3 ‘New energy’ commodity markets are emerging, with critical minerals and hydrogen potentially displacing the dominance of conventional hydrocarbons

As illustrated in Exhibit 1, hydrocarbons and in particular oil, currently dominate the international trade in energy. Nevertheless, if the world is to hit net zero by 2050, according to the International Energy Agency (IEA), the transition will accelerate the growth of commodities essential to new energy, such as hydrogen and critical minerals in the shape of lithium and cobalt for example.

These new markets will need the capabilities of traders to connect producers with end users, improve liquidity and bring price transparency. Our interviews corroborated part of this narrative. Some traders did indeed acknowledge a greater contribution in international trade from critical minerals and hydrogen, however, they added this becoming significant was still some way off into the future.

Exhibit 1. Value of International Energy-Related Resource Trade by Scenario



Source: IEA World Energy Outlook 2021

4 Oil and gas companies seek sustainable operations

All the traders we interviewed recognised that oil and gas will continue to play a key role in the energy mix over the medium term. And in light of the current volatility we are witnessing in commodity prices, there are significant trading opportunities, as well as the need for corporates to adopt hedging strategies.

Gas in particular was highlighted as a fuel with a long tail, given its role in power generation, complementing the intermittency of renewables.

However, while demand for oil and gas may remain over the medium term, oil and gas companies may struggle to access capital as readily as they can today without reducing both the carbon intensity of their operations and offsetting emissions where this is not possible. Innovative solutions will need to be found, for example, bp’s 10-year deal to supply LNG to Singapore’s Pavilion Energy, where both companies will strive to co-develop and implement a greenhouse gas quantification and reporting methodology. Overall, the traders we interviewed had identified an opportunity to marry security of energy supply with ESG – in the words of one interviewee:

> **“The role for traders is to help these companies [oil and gas] continue to produce the molecules, but by finding mechanisms to allow them to do it in a way that addresses their ESG elements. Because if traders don’t address [the ESG elements] then access to finance will become limited and finance providers will not be able to touch them.**

And ESG is the driving force shaping these opportunities

It is not only energy companies that are responding to the impact of ESG, so too are the traders. Several have recruited heads of ESG and are starting to report on their ESG practices. A minority of traders have introduced incentives tying compensation to broader environmental metrics.

The corporate clients served by the traders are described as setting a higher bar of expectations to align trading product requirements with their own strategy. Traders said their clients are seeking guarantees that the origination, integrity and quality of carbon certificates were to a much higher standard than that required historically. Our interviews highlighted a spectrum of 'light' versus 'dark green' products, with the latter increasingly sought after by clients. The variation of shade refers to the perceived quality of the carbon credit. The darker the shade the greater the material impact of the carbon credit from an emissions perspective.

Moreover, in several cases clients were going one step further by scrutinising the ESG credentials of producers further up the value chain. One anecdote from the interviews highlighted automotive original equipment manufacturers (OEMs), producing electric cars, were now performing additional due diligence on the provenance of metals being traded and even going so far as to visit the related mining operations. They were doing this to verify that ethical working practices were being adopted to extract the critical minerals to be used in battery technology.

Not only did the traders we interviewed recognise the growing importance of ESG, but they were cognisant of the sometimes misleading nomenclature associated with carbon credits. For example, describing oil sold with bundled carbon credits or with a lower carbon intensity as 'carbon neutral oil' or 'low carbon oil', or in the case of gas 'green LNG', all ran the risk of misleading customers.

Some traders argued for more transparency. They suggested it was perhaps better to recognise separately both the emissions of specific hydrocarbons and the presence of the instrument to compensate for those emissions, rather than imply the emissions did not exist in the first place. Failure to acknowledge this overtly may expose traders to allegations of greenwashing. From our interviews it is clear traders are concerned about reputational risk (see below for more detail).

But there will be risks to manage, if the potential of 'clean energy' trading is to be realised

Many market opportunities in the energy transition were identified. However, the traders we interviewed also highlighted a number of risks that will need to be mitigated, namely:

Traders are concerned about future reputational risk

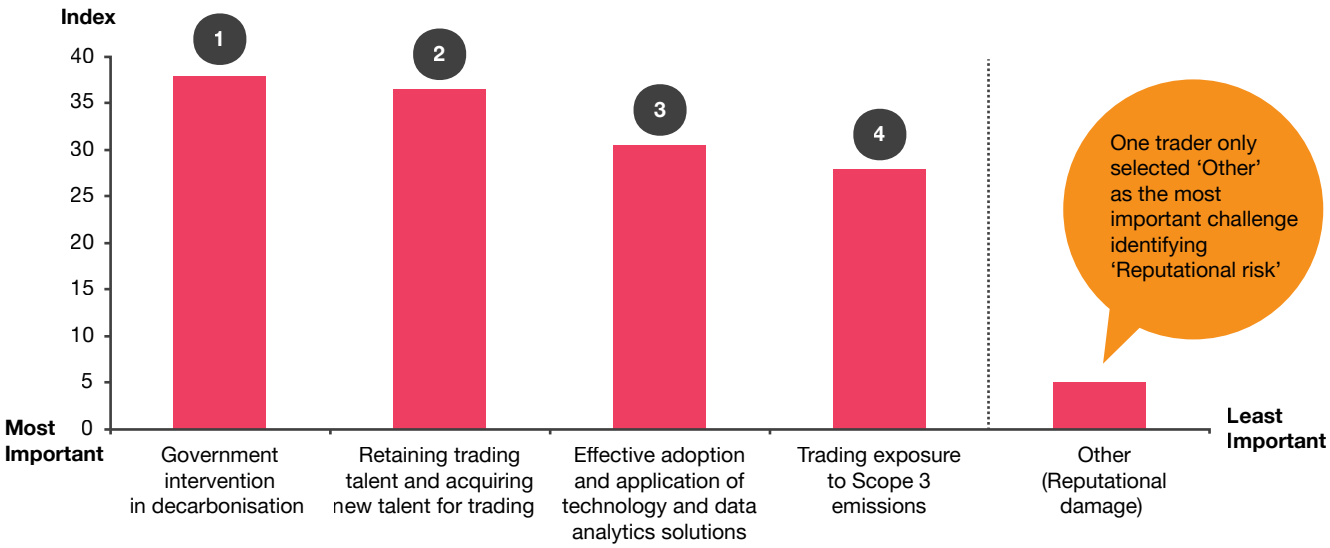
Some of the interviewees wondered whether their current and historic practices will be judged in the future against as yet unknown and undeveloped societal standards. For example, the current practice of selling a traditional hydrocarbon product, such as LNG, along with a bundled carbon credit and calling this 'green' may be considered as inappropriate in the future. And therefore, those who traded in such instruments could open themselves up to future criticism and reputational damage.

Carbon regulatory intervention is likely to increase

All interviewees acknowledged that government intervention and changes in policy will have an impact on carbon markets. In fact, when we polled the traders we interviewed, the biggest challenge they flagged was around regulatory intervention, such as carbon pricing and taxes (see Exhibit 2).

Opinions around the evolution of the regulatory environment varied. Some traders saw a gradually evolving regulatory environment as an opportunity, which they could react to and trade around the uncertainty such changes create. Other traders preferred a clear regulatory environment. In their eyes this would prevent market participants from 'cutting corners' and thus realising the benefits from increased market liquidity and transparency, and reducing concerns about the origins of certificates.

Exhibit 2: Ranking of Challenges Raised by the Energy Transition in Commodity Trading



Source: PwC Strategy& research

So looking ahead there are several key building blocks which will underpin success in 'clean energy' trading

Nurturing talent

1. **Attracting, retaining and incentivising talent will be fundamental to traders as they develop their capabilities** in low carbon/renewables. As illustrated in Exhibit 2, the whole theme of talent was considered the second most important challenge for those traders we interviewed.

2. As traders build capability **we are likely to see a growing war for talent**. Several of the firms we interviewed highlighted their teams were relatively new and in build mode with a growth in movement of people and teams (across front, middle and back office) between traders.

3. **Incentives tied to ESG metrics will also become more and more important**. Engie for example uses a 'People Planet Profit' framework to assess investments and bonuses. This kind of innovation, linking remuneration with ESG, will also be important to ensure trading firms continue to attract new talent.

Technology and processes are essential to develop new green products

- Several of the traders commented that **back office processes for environmental products were outdated**. One interviewee poignantly described the processes as still being 'in the stone age!' As a result, more investment to standardise and digitise these processes is required.

  For example, systems used to verify data and validate attributes around carbon certificates were described as outdated. Newer technologies, such as the use of satellite images and blockchain, were needed to improve the credibility and certainty around products. Equally, given the number of registries tied to mandatory and voluntary carbon schemes, the need for modern and digitally enabled solutions to track the vast volumes of data, will be all the more critical.

  Participants also highlighted that as expectations around ESG standards and carbon intensity increase, **a market in certificates of origin for conventional hydrocarbons products is likely to emerge**.

  While we already see this practice in the power markets (for example through the EU Guarantee of Origin mechanism), the back office technology and infrastructure required to track this for other product classes is not yet established.

- Traders also noted there needed to be **more robust processes around financial reporting and accounting** for carbon certificates and schemes. This was an area which still lacked standardisation and required more specific regulatory guidance.[1]

1 For a more detailed perspective on carbon accounting see the PwC report – Emissions trading systems: The opportunities ahead

So how should commodity traders prepare for success?

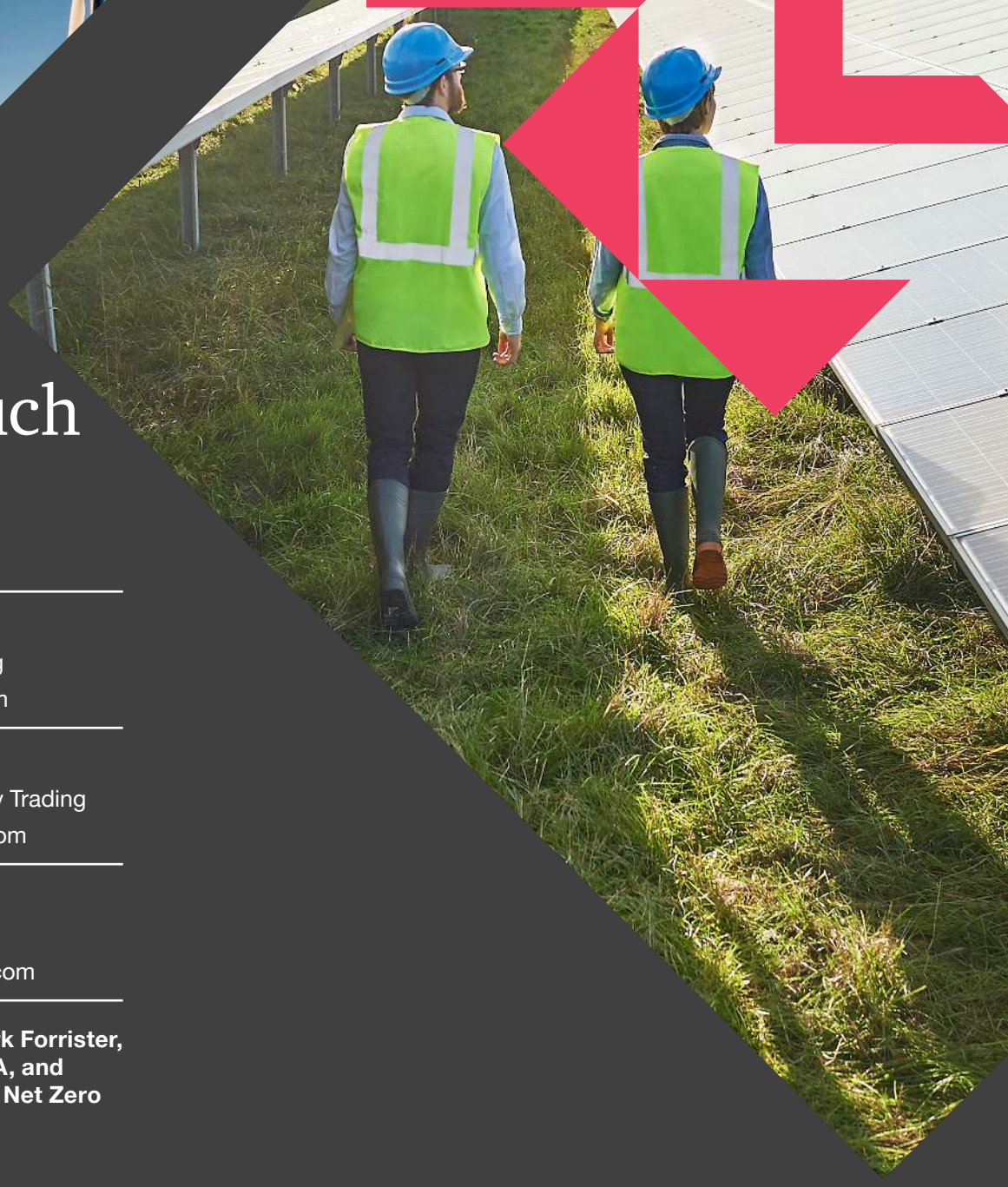
1. **Commodity traders will need to ensure ESG is a strategic priority** and is embedded in their operations. As we witness the ongoing alignment between ESG and international capital, a theme reinforced by COP26, strong ESG credentials will be essential for trading entities as lending institutions deploy their capital. Equally, traders are now considering ESG elements in their 'know your customer' (KYC) and counterparty credit assessments. Going forward, key considerations for trading businesses should include:
   - Is there an ESG strategy in place for the trading entity that is embedded in operations and links into the corporate strategy?
   - Has the carbon footprint of the trading organisation been measured? Have tools been developed to monitor the carbon intensity of the trading business, and do so in a way that reflects the specific carbon intensity of their commodities, rather than an industry average? And which emissions will need to be measured? Will the emissions be measured (and the basis of doing so disclosed) in a way that facilitates comparability? As illustrated in Exhibit 2, Scope 3 emissions are not yet considered by traders as a major challenge.[2]
   - Are ESG metrics linked to remuneration in trading to drive alignment with the overall ESG strategy?

2. **All trading departments will need to develop a technology road map**
   - Capturing emissions data in trading is a real challenge given the volume of transactions and the rapidly evolving nature of carbon trading. **Having the right technology and processes in place will be essential** to ensure traders can deliver on green certificates, new products and new instruments while ensuring the integrity of the governance model.
   - **Developing a detailed technology road map** (covering plans to select and implement new and/or enhance existing software and hardware solutions) to address these challenges will be critical. Traders will have a real competitive advantage if the road map enables them to identify and narrow down the right sources of data which they can subsequently exploit.
   - More broadly, **the need to reinforce data capabilities across trading operations is increasingly more relevant**. On the one hand climate change is making energy markets more volatile and unpredictable, the Texas energy crisis being a case in point. On the other hand, the evolution of new markets, such as sustainable aviation fuels will also stimulate the need for more accurate data to support trading transactions.

The pace of change is one of the defining features of the energy transition. The frequency of extreme weather events, the introduction of new carbon regulations and pledges by governments and corporates to decarbonise, all reflect this whirlwind of change. But fundamental questions remain. How fast will the transition happen? What is the balance between advancing into 'clean energy' markets while maintaining a focus on hydrocarbons, when trading returns in the latter remain attractive?

As we shift to a low carbon world, we believe the winners will be those traders who take a long-term view, balanced with maximising short-term opportunities while investing early to establish themselves as leaders in the transition.

2 For additional perspectives on ESG and Scope1-3 emissions please read **PwC ESG Investor Survey**



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We would like to thank Dirk Forrister, President and CEO of IETA, and Brett Orlando, Founder of Net Zero Capital Advisory, for their contribution to this paper.

2021-11-29_RITM6851069