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INVESTOR WATCH: THE CCUS 'START-UP' THAT CAPTURED MACQUARIE AND GIC

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Carbon capture, usage and storage (CCUS) 'single solution' company Storegga has secured unexpected big-name equity partners over the past year. With uncertain revenue, they want UK government backing for their Acorn scheme and US expansion, reports Tom Goulding

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With the eyes of the world on the UK ahead of the COP 26 Conference in Glasgow this November, investors are looking for the country to put its money where its mouth is.

The declining cost of renewables will inevitably dominate the agenda, with many industry experts predicting Prime Minister Boris Johnson will capitalize on the results of the Crown Estate's 10 GW seabed leasing round off Scotland to further demonstrate his pledge that the UK will be the 'Saudi Arabia of wind power'.

But beyond electrification, the UK is also expected to outline its ambitions for a muted, but no less important, piece of the net-zero puzzle: carbon capture, usage and storage (CCUS).

In October, the government is due to award the first round of funding from its GBP 1bn CCS Infrastructure Fund, established last year primarily to support capital expenditure of transport and storage networks and industrial carbon capture projects.

The government is seeking to back at least two CCUS projects that can be deployed by the mid-2020s – so called 'Track-1' clusters.

Among those hoping to secure government support is Acorn – a project based 185 miles north of Glasgow at the St Fergus gas terminal in northeast Scotland.

Acorn is designed to repurpose existing pipelines to transport CO2 100km offshore and inject it into rock formations under the North Sea. The carbon will be sourced from Grangemouth in Scotland's central industrial belt or shipped from Europe to the nearby deepwater port in Peterhead.

Later phases of the project include a blue hydrogen facility, which would decarbonize natural gas piped into St Fergus to create a cleaner blend for the UK gas grid.

The project is backed by Shell, Harbour Energy and Storegga Geotechnologies, which is leading development of the project via its subsidiary Pale Blue Dot Energy and has over the past year secured backing from Australian bank Macquarie, Japanese industrial giant Mitsui, Singapore sovereign wealth fund GIC and most recently UK institutional investment firm M&G.

The interest from these global infrastructure investors in Storegga, which was only established as the new holdco for Pale Blue Dot following a cornerstone investment from Macquarie in 2020, was unexpected.

“It’s taken a few people by surprise,” admits Alan Booth, Storegga’s head of strategy and integration. “We’re still relatively small: not quite a start-up but not far from being a start-up. That tells you they [the investors] can see this is a whole new piece of infrastructure and a sector that’s going to develop.”

Storegga was founded by Booth alongside its CEO Nick Cooper, Chief Technology Officer Alan James and board advisor Jonathan Taylor. All four have backgrounds in the upstream oil & gas industry.

In March, Mitsui took a 15.4% stake in Storegga. At the time, Macquarie Group and GIC held interests of 21.5% and 15.4%, respectively, while Cooper and other members of management held the remaining 47.7% stake in the company.

Storegga declined to comment on the make-up of the business since M&G’s investment but confirmed that management retains a controlling interest.

From acorns do grow

Storegga aims to make a final investment decision on Acorn next year, injecting its first carbon deposit under the North Sea by early 2026.

The developer has declined to comment on the capex costs as it will not “reach FID until the end of FY22”. However Petrofac, which is providing engineering support to Acorn, said in a press statement earlier this year that onshore and offshore developments required could be in excess of GBP 3bn.

The project, which is being delivered in phases, offers advantages to investors that normally might not look twice at a not quite start-up.

The project’s upfront capex costs, for instance, are partially offset by the reuse of existing pipelines that are relatively young in life but are no longer being used to transport natural gas in the North Sea to the St Fergus terminal as the fields they were servicing have been depleted.

These include Shell’s 100km Goldeneye pipeline, which was submitted for decommissioning in 2018 but has now been requisitioned for the project following talks with the offshore petroleum regulator and the CCUS stakeholders. Acorn will also repurpose the 80km Atlantic pipeline and has future plans to utilize the much longer Miller Gas pipeline for future storage capacity.

According to a presentation on Pale Blue Dot by the European Commission and Department for Business, Energy & Industrial Strategy given in January last year, the pipeline reuse could result in more than GBP 750m of cost savings.

Booth confirms that transfer of ownership of these pipelines to the Acorn partnership is “in process”.

While declining to comment on valuations, he adds that the regulator has made clear that oil & gas operators have an obligation to hand them to “folks that can reuse them for CO2” rather than decommission them.

It is this kind of regulatory lever that is key to infrastructure interest in CCUS, a source familiar with the sector says, pointing to the fact that the UK government is exploring a regulated asset base (RAB) business model for the transport and storage of carbon.

According to a report published by law firm CMS in January, options being considered include a model that would require the regulator to set periodic price controls, make revenue adjustments and grant licenses.

Revenue could take the form of a user pays model, which would see customers’ fees for transport and storage of carbon structured in a similar way to gas network charges – allowing the risk to be priced into the network usage fee so that it would not fall squarely on the shoulders of the operator.

The idea is to both incentivize private investment in transport and storage by offering a long-term inflation-linked revenue stream, but also keep the industry in check, the source adds, ensuring that fees for this service do not rise disproportionately beyond what large industrial companies are being charged to emit carbon and deterring them from capturing the emissions in the first place.

Single solution

Estimates for the cost of transporting and storing CO2 vary widely, with many North Sea site developers keeping their internal estimates closely guarded in the run-up to the government decision on who gets funding.

Yet the overall increases in carbon prices – the cost applied to businesses for emitting CO2 – are only expected to rise, underpinning the case for CCUS projects like Acorn, says Booth.

"People try to back-calculate what it costs to store the CO2 and it's just not helpful in the broader scheme of things. But the price of carbon in the time Storegga has been going has moved from EUR 25/t to EUR 55/t. If you emit CO2 that's what you have to pay.

"Ultimately, they [the emitters] see they have to sequester and capture the CO2 and, secondly, they are getting a lot of pressure from investors that are publicly listed to further their ESG credentials, and their license to operate [depends on] having the goodwill of the public. Emitting might sometimes be the cheapest option but not always the best option for the company in the round in terms of their strategic objectives."

Customers are already signing up.

Last month, European chemicals giant INEOS Energy and Petroineos signed a memorandum of understanding with Acorn to capture and transport 1m tonnes of CO2 from its Grangemouth sites by 2027. Exxon Mobil also signed an MoU in July to participate in the project.

INEOS operates the Olefins and Polymers petrochemical plants in the town, which rely on North Sea gas for production. Petroineos, a JV between INEOS and PetroChina formed in 2011, operates the Grangemouth Refinery and is the chief supplier of aviation fuel to Scottish airports.

But other emitters, it appears, may need an incentive to buy into the concept of CCUS and ensure mega projects like Acorn have a ready supply of CO2.

The government is exploring the rollout of a 15-year Industrial Carbon Capture (ICC) Contract: a subsidy that would cover the costs of operating expenses, transport & storage fees and a repayment or rate of return on investing in carbon capture equipment for industrial plants.

Eligibility for the ICC Contract could come with conditions, including access to a transport & storage site such as Acorn and an operational start date no later than 2027. Sectors that could participate include energy from waste, steel, cement, chemicals, midstream and downstream oil & gas facilities, non-ferrous metals, paper and pulp manufacturing.

The ICC Contracts could also be amended to accommodate a Capture-as-a-Service model, where Storegga may agree to capture the emissions on a client's behalf. It's an idea that might appeal to smaller industrial emitters that might not be able to retrofit their plants with CCUS technology, and for Booth it has huge potential.

"What we're seeing is emitters want a single solution," he says.

"Someone comes along, fits the kit on their stack, aggregates it [the emissions], ships it, as a service. "That's another part of the business with our shareholders that we're looking at, providing that end-to-end service. Obviously, that capture technology at the end will vary depending on what the customer needs for their specific process."

While the specifics of Acorn's revenue model are yet to be fleshed out, Storegga's investors are what Booth describes as "deep-pocketed" and can afford to be patient.

Disruption team

M&G, the sole UK-based institutional investor in Storegga, has made its commitment through its GBP 136bn With Profits Fund, which in February allocated GBP 5bn to private enterprises working to build a sustainable world. Catalyst has been mandated to deploy this capital.

Alex Seddon, head of M&G Investments' Catalyst team, tells *SparkSpread* that CCUS is an obvious area for the institutional investor to get involved in at an early stage ahead of infrastructure funds, which will descend on the sector when future cashflows become visible.

"The Catalyst mandate is a very broad, impact fund with a high degree of flexibility. The whole point of that fund is to get capital where it's needed to drive innovation," Seddon explains.

He adds: "We don't know how this [the revenue model] is going to work, to be completely honest. We've spoken to a number of people, taken people's views as to what they think is most likely, but by definition until the government announces how this is going to be supported in the long-term that is an unknown, and we have to invest through that unknown. Clearly when that is known this then becomes a very different type of asset."

Singapore sovereign wealth fund GIC has a similar outlook. It has invested in Storegga through a mandate, which like Catalyst, is less preoccupied with short-term returns on its investments.

"Five years ago, we set up what we call a disruption team within infrastructure to really look at what technologies are going to disrupt the world in the future, and also we set up a cross-GIC energy transition team as well looking at different asset classes," says Stuart Baldwin, managing director and head, infrastructure (developed markets & funds) at GIC.

"We expect they [Storegga] would need further capital as they move down the development profile and move the project to a [final investment decision]. There will be significant capital that will be needed and we'd look to contribute to that. That's why we're investing now, to make sure we have the opportunity to invest more money later."

GIC also has another reason for wanting to position itself early in the asset class.

"Hopefully we're going to make good money on these investments but we also expect to learn how they will impact our bigger investments around the world."

Global lessons

The disruptive potential of CCUS is on the mind of many of Storegga's backers with fossil fuel-linked investments, though Seddon is keen to establish that M&G is not investing in the technology to hedge any of its other positions.

The investors also see Acorn as a learning experience, and many of their home countries are watching closely.

"The reason [there are] these focuses from Singapore, Australia, Japan, is they see this as the model for how other countries around the world are going to adapt so it's a great place to understand or advise Singapore for instance how it works, how the [UK] government approached it, what it got right and what it got wrong," says Booth, who says that 95% of northwest Europe's CO_2 storage capacity is tied up in UK and Norwegian waters because of the oil & gas industry that has taken root there.

In the longer-term, Storegga's ambitions are international.

In June, the company singed a joint venture agreement with Talos Energy to explore future developments of carbon storage projects on the US Gulf Coast and in the Gulf of Mexico. "We are looking at other parts of the world, you just need to look at the country of origin of our investors and you can probably get a good idea where they are," Booth says.

But for now, all eyes are on the UK government.

Other schemes likely to compete for the GBP 1bn of CCS Infrastructure Fund capital include the East Coast Cluster, backed by utilities and oil strategics including BP, Eni, Shell, National Grid and Total, which is seeking to capture CO_2 and inject it into a depleted reservoir in the southern North Sea.

A consortium involving Eni and Cadent is also championing a project in Merseyside, HyNet North West, which would capture CO_2 and transport it around 18 miles offshore to a reservoir in Liverpool Bay. Eni was awarded a hydrocarbon storage licence by the UK Oil & Gas Authority for the project in October 2020.

While Seddon will not be drawn on whether failure to secure 'Track-1' backing from the CCS Infrastructure Fund would be disastrous for Acorn, there is a sense that some form of political acknowledgment is required to progress.

The government is keen to invest in two "reserve" industrial clusters after this initial autumn round, which it claims is necessary to meet its target to capture and store 10m tonnes of CO_2 by 2030. It's a target that potentially underestimates the scale of each cluster: Acorn's first pipeline alone could transport around 5-6m tonnes of CO_2 to the North Sea each year, while the East Coast Cluster boasts it will be able to remove 27m tonnes per year by 2030.

Broader fears around regulatory alignment, which will drive supply of CO_2 to the offshore reservoirs, persist.

"There have been false dawns in carbon capture before," a source warns.

"If you look at the scale of ambition on what the government needs to do to meet the Sixth Carbon Budget (between 2033 and 2037) it is a lot more than they have promised so far. Every year you wait for the framework to be set up is another year investors aren't getting returns on their capital."

But Booth is not worried.

While he admits that grants and subsidies are important to initially scaling-up the technology, he predicts that reliance on the taxpayer will quickly fall away, as has been seen in the offshore wind sector over the past decade.

“[Our equity partners are] grown-up investors. This is not about ‘let’s invest because the government is going to subsidise it,’” he says.

Fingers will no doubt be crossed that this project will be a great publicity boost for Scotland as delegates descend on Glasgow in a few months' time.

Deal Profile

Storegga

UNITED KINGDOM | Energy | Other | Greenfield

Investor Profile

GIC INSTITUTIONAL

SINGAPORE | Sovereign Wealth Fund

Macquarie Capital OTHER

AUSTRALIA | Bank

Mitsui & Co CORPORATE

JAPAN | Listed | TYO | Ticker: 8031 | OTC | Ticker: MITSY

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