Occidental Petroleum Company

Low Carbon Ventures Investor Update

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PRESENTATION

Operator
Good day. Welcome to Occidental’s Low Carbon Ventures Investor update. All participants will be in listen only mode. After today's presentation there will be an opportunity to ask questions. To ask a question, you may press star then one on your touch tone phone. Please dial 1-412-317-5417. To withdraw your question please press star then two. Please note, this event is being recorded. I would now like to turn the conference over to Jeff Alvarez, Vice President of Investor Relations. Please go ahead.

Jeff Alvarez
Thank you, Sarah. Good morning, everyone. Thank you for joining Occidental's low carbon strategy and business update. We have made tremendous progress over the last few years to create an enhanced carbon management business. We are proud of our capabilities across our asset base, including Oil & Gas, OxyChem and Midstream.

Our portfolio and operational abilities are resilient and ready to provide leading shareholder value. As you will see today, we are advancing new opportunities to make these businesses both lower emission and more valuable for our future. Please note that our presentation includes a cautionary statement on slide two regarding forward looking statements that will be made today.

Presenting on the call this morning will be Vicki Hollub, President and Chief Executive Officer; Rob Peterson, Chief Financial Officer; Ken Dillon, President International Oil and Gas Operations, and Richard Jackson, President Operations U.S. Onshore Resources and Carbon Management. Also participating during the approximately one-hour question and answer portion of the call, our business leaders from 1PointFive: Rick Callahan, Michael Avery, and Tony Cottone.

Today we’ll provide an update on our low carbon business strategy, including the market opportunity and our plans to deliver climate and business solutions that leverage our assets and capabilities in carbon management, including carbon capture, utilization, and sequestration. This morning, we posted on our website the slides that we will cover today, as well as an extended slide deck that provides additional technology and modeling details. We suggest you follow the slide progression on our webcast.

I’ll now turn the call over to Vicki. Vicki, please go ahead.

Vicki Hollub
Thank you, Jeff. In terms of vision, we recognize there’s a lot of breadth and depth to the climate challenge. To address this challenge and meet the 1.5-degree Celsius target presented in the Paris Agreement, we need a strategy with equal breadth and depth. To build our strategy, we’ve taken a system approach, building on our existing carbon management foundation to deliver solutions to accelerate a net zero economy. We’re going to provide a lot of detail today on the opportunity in front of us and our strategy to deliver solutions that add value to our business.

Before we dive in, I want to highlight a few of the key points. First, achieving global net zero by 2050 requires technology solutions that can deliver large scale and rapid emission reduction.
Second, our low carbon strategy creates value for our existing business, while at the same time helps accelerate the path to net zero, not only for ourselves, but also for other organizations looking to do the same. Third, we focus our low carbon investments on technology projects and development platforms that fit with our existing business and our core expertise in carbon capture, utilization, and storage. Fourth, we've already made significant progress in executing our strategy with key CCUS technologies ready for large-scale commercial deployment. Increased policy support for CCUS and carbon removals will help accelerate our progress. Lastly, we are ready to move fast. We're prepared to execute quickly, but we've built in options on pace and capital deployment.

With that framework in mind, let's go into our vision for creating a sustainable future. From the outset, Oxy Low Carbon Ventures has been focused on the development of a net zero system, where CO2 emissions are captured and stored or utilized. Everything we'll share today was designed to create this net zero system, which we believe not only enables significant emissions reduction but also provides a carbon capture value chain that can commercialize the technology, projects, and products within important markets for our future. Oxy is positioned to manage the lifecycle of carbon in a unique way, given our history managing CO2 in our oil and gas subsurface and through our Midstream processing and transportation. Additionally, our OxyChem capabilities provide key skills to build and operate many of the low carbon industrial solutions we are pursuing.

We aim to take a leadership role in CCUS technology and the project development to support it. Oxy Low Carbon Ventures is focused specifically on technologies and project development, synergistic with our expertise and existing assets that can be deployed commercially to reduce emissions and improve our business. The 1PointFive platform, our first key development business, brings together several of these key technologies, including point-source capture, Direct Air Capture, AIR TO FUELS, and geologic sequestration. I take great pride in Oxy being the first U.S. oil and gas company to set a target for achieving net zero for Scope 1, 2 and 3 emissions.

Setting out to achieve net zero is a challenge and one we take very seriously. We have developed a strategy that includes multiple simultaneous pathways to emissions reduction, and our teams will continue to innovate and implement as we work toward our target. Deployment of 1PointFive’s technology and solutions, along with future OLCV technology deployments, accelerate Oxy’s emission reduction plans and support our net zero targets. Our ultimate goal goes beyond our own emissions inventory, to give organizations everywhere the tools they need to achieve net zero or net negative emissions.

Across several decades, we've created a strong foundation of assets, technical experience, and essential infrastructure that we've used to manage CO2, both through surface processing and importantly, in the subsurface, where we store up to 20 million tonnes per year. This position is also a significant platform to accelerate deployment of CCUS technologies and projects. Our CO2 EOR assets provide the opportunity to handle, and store captured atmospheric CO2, while also providing the ability to monitor and verify the CO2 is permanently and safely stored. We also have a track record for successful technology advancement and delivering this through major projects that are on time and on budget.

The experience we've gained, the assets we've developed, and the innovative, diverse, and cross-functional teams we have working together around the world, all put us in a unique position to spearhead CCUS acceleration and provide decarbonization solutions on a commercial scale. We’ve spent years developing our strategy and building our CCUS platform...
that supports a future net zero economy. It starts with capitalizing on existing skill sets and infrastructure in a way that gives us an advantage in developing and deploying these new technologies and business models.

A central part of that plan is Direct Air Capture, which is critical to meeting Paris Agreement targets by enabling rapid emission reduction and low-carbon product development. Another key aspect of our vision are centralized sequestration hubs for large volume CO2 storage. These hubs will be able to sequester CO2 from both industrial point-source capture projects and Direct Air Capture. Direct Air Capture is synergistic with existing OxyChem and CO2 EOR operations. OxyChem will provide two critical components to Direct Air Capture facilities and is providing decades of real-world operations experience to improve and scale the technology. Direct Air Capture CO2 can also be used in our EOR operations to produce a net zero oil product, which we'll get into in more detail later.

Our technology selections have been and will continue to be those that fit well with our existing capabilities and assets. While revolutionary ideas are needed to support a global carbon market, Oxy's ability to rapidly and cost effectively deploy a suite of carbon technologies at large scale represents a clear and continued progression for our company.

And now I'd like to turn the call over to Richard Jackson for a closer look at our low carbon opportunity and strategy. Richard?

Richard Jackson
Thank you, Vicki. Now that you've had an introduction to our vision and CCUS platform, I'd like to cover our low-carbon opportunities and business. First, I'd like to introduce three colleagues in our Low Carbon Ventures team who will help with the discussion as we get to your Q&A. First, Rick Callahan, who is the President and General Manager of Low Carbon Ventures; also Mike Avery, who leads our 1PointFive CCUS Development Business that we will describe today; and finally, Tony Cottone, who leads our low carbon markets and product efforts.

As we started Low Carbon Ventures, there was a foundational goal that has remained, and I hope it's clear as we describe our efforts. We call it our dual purpose, to make Oxy's business better and to reduce atmospheric CO2. While simple, this lens has guided us to what we believe is a unique offering and a fit to a carbon capture value chain that we will reference today.

Emissions reduction is a large volume problem. If global emissions continue as projected, it will take approximately 60,000 million tonnes per annum or MTPA of CO2 emissions reduction by 2050 to hit the 1.5-degree target. To do this requires many different solutions improving over time. As we show here, a large portion is projected to come from reduced emissions, improved energy efficiency, increased zero emission power supply and fuel switching. The other significant requirement is carbon capture, either at the emission source or from the air, where carbon removal solutions can reach difficult-to-decarbonize sources. Uniquely, carbon removals, like Direct Air Capture, can also reach emissions that are already in the atmosphere.

As the world has spent time with our various net zero pathways, the appreciation for Carbon Capture and Direct Air Capture has increased. As noted in the recent IPCC climate update, the need for near-term industrial scale carbon removals is urgent and becomes even more necessary with any delays across other solutions. As you can see from the 1.5-degree scenario on our slide, over 20,000 MTPA is expected from CCUS and carbon removals by 2050.
Drilling down further, we want to introduce several target markets where we are focused. Our strategy is to deliver solutions that meet market demand for carbon removals via Direct Air Capture deployment, enable low-carbon products from domestic point-source industrial capture, and to develop and deliver sustainable and low carbon aviation fuels. First, as we saw on the last slide, the scenario is to achieve a net zero forecast to assume 15,000 MTPA for carbon removals by 2050 to reach several key hard-to-decarbonize sectors. Oxy believes Direct Air Capture can provide an economic, lower cost solution for many of these challenging industries in the near term. This near-term market represents approximately 5,000 MTPA.

Second, in the United States, industrial point-source facility emissions represent a significant opportunity at approximately 2,600 MTPA. Less than 1% of U.S. annual domestic CO2 emissions or around 22 million tonnes per year are currently captured and sequestered annually. Going further, just a small portion of this 2,600 MTPA of U.S. point-source emissions is economic to capture today. However, just a moderate increase in support or with a reduction in capture cost, we can unlock substantial volumes for economic capture and sequestration. As Oxy assembled the pieces of our net zero economy together, we can also help create economies of scale to share some common cost. We can help make that happen through hub development that we will discuss today.

And then there’s aviation, which is in the difficult to decarbonize heavy-duty transportation sector. The good news is aviation is a progressive compliance market and importantly, is being led by corporate leaders that are passionate about solving the challenge. The Carbon Offsetting and Reduction Scheme for International Aviation or CORSIA, lays out robust decarbonization goals and compliance standards as we look into the future. Reaching those reduction targets will mean 1,200 MTPA of low-carbon sustainable aviation fuels or offsets by 2050.

To put that into context, that represents an equivalent 1,200 of our Direct Air Capture facilities, which we believe will be an early solution. Again, other heavy-duty transportation sectors such as marine and trucking are also a fit, and we'll share more on those plans as the markets mature and our plans are solidified. Together, these three near-term market opportunities have helped drive our strategic approach and our investment strategy, both across technologies and products.

Now let's go into more detail on this investment approach on the next slide. In terms of our Low Carbon Ventures technology and projects, we have remained focused on an integrated carbon capture value chain. As we will note later in the discussion, this both supports lower cost of our business today and also enables us to build value in new business opportunities.

We are positioned in investing across this value chain from net zero power sources to capture technologies, to CO2 storage, utilization, and carbon tracking. This comprehensive and informed approach will enable us to deliver fully integrated low carbon solutions and products with a competitive advantage and improved commercial capability. Specifically, we're looking for nascent technologies and CCUS projects where we can best apply our expertise, our infrastructure, and assets to accelerate development and value.

Also, we're focused on technologies that are ready for industrial scale deployment now. We believe rapid deployment builds both innovation leaps and the economies of scales to improve the commerciality of our integrated projects. Capitalization is also considered in our development plans. Early policy and business partners can help catalyze initial projects. Then they can jointly benefit as markets grow and costs are reduce to enable a sustainable business that provides lower cost and lower carbon solutions and products. Beyond this early catalyst

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support, multiple project and development platform capitalization options exist to manage Oxy's required investment. We will balance Oxy's capital investment levels and strategic partners to ensure maximum value for Oxy within our company cash flow priorities, and Rob will cover more on this as we conclude.

Now let's back up and take a quick look at the portfolio as it stands today. As we've invested across our carbon capture value chain, we have three simple tenets. One, we appreciate where we are already placed to help with our existing assets; two, we have sought to invest and support the parts of the value chain we believe will be most valuable to our current business and the emerging markets; three, we understand how best to invest or partner in the gaps where our core expertise in our assets can provide material benefit to the technology or integrated development. We'll talk more about how this approach has played out with our Carbon Engineering partnership in the formation of 1PointFive in the remainder of the presentation. But this strategic investment framework is also present across our other investments. For example, we can pilot these innovative technologies in our own operations, such as our bio ethylene initiative through Cemvita Factory. We can also integrate key pieces like zero emission gas powered generation from NET Power into our DAC or net zero oil developments.

Moving forward, we'll focus on commercializing these market-ready technologies in our portfolio and pursue additional value chain needs like CO2 utilization, technologies, and products that fit our investment model. Today, we have several technologies moving forward with commercial scale development with ready markets. Center stage is 1PointFive carbon capture and sequestration platform.

Now I'd like to take a few minutes to walk you through this significant opportunity. We formed 1PointFive with a mission to help curb global warming to 1.5 degree Celsius through the capturing, storing, and utilizing of CO2. This combines several CCS technologies and capabilities into a platform that provides solutions aimed at organizations seeking to decarbonize their operations and their fuel products.

Oxy and the technologies are ready. From our Permian CO2 EOR position, we have been working to prepare both the infrastructure and the subsurface for point-source and Direct Air Capture development. We have built upon this foundation into new geographies to prepare a broader carbon capture development. From zero emission power to parallel options for saline sequestration and net zero oil, and perhaps most importantly, expanding our CO2 monitoring, reporting, and verification capabilities, we have been working to put the carbon value chain together. And again, in summary, we are ready.

Further, key markets are opening to support full-scale development. Early corporate leaders and sectors recognize the need for CCUS and Direct Air Capture specifically and are joining to kickstart a solution that is necessary and to ensure we have a cost-effective pathway to large-scale, low-carbon products. Finally, global policy is also engaging to catalyze our start. This early support allows us to accelerate and deploy more in the near term to ensure the markets and cost reduction move quickly towards a sustainable business. The world collectively is coming together to make this happen now.

Now let's move to the specifics of our 1PointFive development scenarios and business strategy. I'd like to start from the top down with an overview, and then we'll dive deeper into the specific components of the business. 1PointFive is substantially positioned across the carbon capture value chain. The business will capture CO2 both through the deployment of Carbon
Engineering’s Direct Air Capture technology and through domestic point-source industrial capture. Together, these solutions create and enable five key products for carbon markets.

First, we can capture emissions from industrial point-sources and safely sequester them deep underground in saline formations. This allows for the industrial product to carry a much lower carbon intensity. Second, from Direct Air Capture with sequestration, we can create a carbon removal credit to be purchased by businesses seeking to offset their emissions. Third, Direct Air Capture combined with Carbon Engineering’s AIR TO FUELS process, produces a sustainable fuel for use in aviation, maritime, and long-haul trucking operations. Fourth, CO2 from Direct Air Capture can be supplied as a raw material to make new low-carbon products like building materials, chemicals, or even materials that we can wear. Finally, Direct Air Capture CO2 feedstock can be used in Oxy CO2 EOR operations to enable net zero oil to again, help service a transportation sector. We’ll talk through these products in more detail a bit later.

This carbon value chain to products begins with Direct Air Capture, so let's start there and we can talk through each part of the business. 1PointFive will develop, own, and operate our Direct Air Capture facilities. However, partners are crucial to bringing momentum to 1PointFive, and this will continue to be the case going forward.

Technology advancement and innovation, strong project engineering and delivery and creating and shaping carbon markets are key to our success. We will continue to work closely alongside Carbon Engineering’s team for global Direct Air Capture and AIR TO FUELS development and on continuous innovation for next-generation climate solutions. We’ve partnered with Worley on engineering the first Direct Air Capture and AIR TO FUELS facility. Their global footprint, innovation, and data-driven technology approach make for a strong project delivery alliance.

Our advanced product sales to date have been successful. Importantly, first movers include Airbus, SK, United, Shopify, and Thermo Fisher, all bringing early-stage support for commercial scale CO2 reduction solutions. Two meaningful examples we want to note; Airbus recently announced they would buy 400,000 metric tonnes of carbon removal credits from 1PointFive first Direct Air Capture facility over a 4-year period. With SK, Oxy may provide up to 200,000 barrels of net zero oil per year for 5 years to SK Trading International to develop into net zero products, including lower carbon aviation fuel for use under CORSIA. This represents approximately 100,000 tonnes per annum of atmospheric capture and sequestration through EOR processes.

Already, we are taking important strides towards broad development and commercialization. This now includes holding an exclusive license for Direct Air Capture and AIR TO FUELS development in the United States. Additionally, OLCV has an agreement to be execution partner for all Carbon Engineering, Direct Air Capture and AIR TO FUELS technologies worldwide.

Oxy Low Carbon Ventures is working with Carbon Engineering in their new innovation center, which provides large-scale process capability to advance improvements, not only for Direct Air Capture Plant 1, but importantly for future generations of plants. With Worley, we are nearing completion of front-end engineering and design for 1PointFive’s first Direct Air Capture facility, which is anticipated to be in the Permian Basin. Start-up is expected late 2024.

From these initial steps, we continue to build and refine our future worldwide Direct Air Capture development scenarios. In a current support scenario, we see market and policy conditions are supportive of 1PointFive building 70 Direct Air Capture facilities by 2035. This is dynamic and only represents a business environment as we see it today.

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I would like to note five key qualifying criteria in this development scenario. The host nation must have support of public policy and incentives for removals in place today or in the near term. There must be growing demand from customers for our products. We must see scalable attributes, such as suitable geologic storage and zero emissions power supply. There needs to be a mature supply chain in place to enable construction and operations. We also need an environment that supports high integrity and transparent operations. Given these criteria, the United States is the most advantaged location for scalable and repeatable Direct Air Capture development today. However, we expect countries around the world to help derisk the scalable model over the next decade, with growing appreciation and support currently happening.

On the next slide, we can look at this scenario in more detail, and we'll add a second scenario for reference. Again, the current support scenario assumes current global policies, as well as the current growing demand from voluntary and compliance markets. Voluntary demand from net zero business customers is expected to bridge to a larger future compliance market, where global regulatory and state bodies require carbon removals and low-carbon products.

The second scenario is our net zero support case. This entails increased policy and market support to achieve net zero on a global scale. This is a scenario that would enable a broader low-carbon economy to accelerate with timing and scale necessary for global net zero by 2050. With this additional support, we project our development plan to deliver 135 Direct Air Capture facilities coming online by 2035.

Considering both of these scenarios, a few notes. First, we will manage our development plans to ensure key technology progress, cost reduction, manufacturing capabilities, and commercial support prior to construction. Second, the next few years will be critical to help determine the ultimate pace of deployment. Key policy support measures will determine how much catalyst there is to move forward more broadly over the next decade. Also, customer support for our products will play a critical role as corporate net zero plans advance.

In 1PointFive, we are focused on the innovating of the process, improving the project execution, and ultimately lowering costs. By the end of the decade, we believe we will make significant progress towards target cost efficiency, and we'll have built a development system capable of increased pace. That timing depends on support progressing in the next few years. Early key support enables more plant development in parallel versus plants and series, which significantly impacts the ability to deliver cost-effective large-scale removals over the next 10 to 20 years.

As we introduce to start, the total carbon removals market supports an even greater number of these facilities, but we have assumed several constraints and appreciation for other solutions that we'll need to develop within the carbon removal space. Our plan will carry key project on-ramps to allow increased development but also off-ramps to manage deployment risk. Of course, while the upside scenario includes 135 plants by 2035, the world's net zero goals require more, and we'll be prepared to deliver.

For more depth on our Direct Air Capture major project development, I'd like to hand it over to Ken Dillon. Ken?

Kenneth Dillon
Thanks, Richard, and good morning, everyone. As you know, at Oxy, we have a good record of delivering major projects on time and on budget with very good HES performance. Direct Air Capture...
Capture facility is no different, since our teams work seamlessly across the entire company as these project examples show.

The Al Hosn gas plant in Abu Dhabi features four of the largest sulfur recovery units in the world. This $10 billion project demanded over 280-million-man hours, and we’re proud to be a partner of choice with ADNOC. We have since successfully increased the capacity to 1.28 Bcf a day, and we’re currently expanding the capacity to 1.45 Bcf a day.

Stateside, we built the Ingleside Ethylene Cracker in Texas with our partner, Orbia, adjacent to our vinyls manufacturing plant. This facility has the capacity to produce 1.2 billion pounds of ethylene each year and 8 million man-hours were involved during the construction phase. Another key project I'd like to highlight is an OxyChem 4CPe facility. This plant was the first of its kind to deploy an innovative Oxy patented manufacturing process. It produces a key raw material for next-generation refrigerant with lower emissions. Again, another instance of adding more value to former commodities through emission-based differentiation. We took this process from lab scale to full commercial scale, and it's likely that this product is in your car a/c system today.

Projects like these enable our organization to pursue acceleration of innovative carbon capture technologies with confidence. We also have huge experience in CO2-related projects in the Permian. In terms of comparisons, you can see the DAC is a good fit relative to delivered projects. We have built a project team made up of the key personnel from the project shown and this team is augmented with OxyChem's advanced research staff and Carbon Engineering staff, and we continue to use our in-house developed project management approaches. Currently, our feed with Worley is going very well, and we're around 50% complete and we'll finish that in the summer. The 3D CAD model is complete down to 2-inch piping, and we have inquiries out to 300 bidders for items of equipment and bulks.

Our goal is to reduce the cost of capture significantly over time. People talk about Wrights Law, where cumulative production leads to efficiency gains, but it doesn't happen passively. It involves working individual innovation tasks, generating the technology improvement curve. The combined Oxy, Carbon Engineering, and Worley teams collaboratively see opportunities for achieving both capital and opex reductions. In fact, we've already identified thousands of innovation tasks. Examples include improved packing design leading to both reduced numbers of air contractors and lower energy requirements. Same has driven the area of pellet formation, where we are working to reduce the number of reactors and filters. All of these are material for cost of capture.

Selection of vendors is key for the long-term, and we are selecting six visionary vendors, whose company has the commitment of their CEO and Boards to drive significant continuous improvement over time for DAC, and who have global reach and experience and who see the potential of the market worldwide. Assumption Destruction workshops have already led to savings in DAC 1 and beyond. In these sessions, we look at what is actually needed, not what we always do. And everyone in the project has an app on their phone to test ideas for cost savings as they create them. Looking longer-term, we see a move to DAC manufacturing on a worldwide basis as something that potentially has huge benefits.

And lastly, Carbon Engineering R&D teams and our teams are working to intensify the process, potentially eliminating some steps. The Carbon Engineering innovation center is key to testing new ideas quickly. Not only can we make it happen, but we can scale Oxy's expertise in major global projects and developments around the world, means that 1PointFive can scale Direct Air
Capture quickly worldwide. We have the major factors covered: engineering, supply chain, and repeatability.

1PointFive has a robust supply chain and purchasing power through a broad deep network of partner relationships and alliances around the globe. The visionary vendors will contribute significantly to this depth. These types of facilities are built using proven industry scale equipment and processes from commodity construction materials available around the world from multiple suppliers. In addition, OxyChem is one of the largest producers of the key inputs, potassium hydroxide and PVC for the Carbon Engineering process, and we have Oxy's unparalleled CO2 experience.

Carbon Engineering’s technology is modular where it matters, such as its air contractors, while capturing economy of scale in the centralized processing facilities. The processing equipment, the calciners, slakers, are already proven. We are also committed to the design-one-build-many approach. Worley, for example, of a tool known as Replic8, which is currently available and is specifically for that purpose and can be used worldwide.

Thank you. And I'd now like to pass the mic back to Richard to review the sequestration and point-source capture side of the business.

Richard Jackson
Okay. Thank you, Ken. We've talked a lot about Direct Air Capture within the 1PointFive CCUS platform, but the other component that is important is point-source capture. While 1PointFive’s Direct Air Capture operation will be removing CO2 from the atmosphere, we will also be working projects for point-source capture, transportation, and sequestration of CO2 for industrial sectors such as ethanol, cement, and steel.

Over the last several years, we have been involved in multiple CCUS projects across the U.S. by providing advisory services and to support pre-FEED studies. These projects have allowed us to learn with emitters how best to engineer specific projects, and also how to create commercial partnerships to move them forward. Those discussions have been productive, and we are currently working with over 40 MTPA of point-source capture potential that we believe can move forward over the next few years. We highlight several of these projects on the next slide.

In Oxy, we have over 50 years of experience managing large volumes of CO2, and we believe we can bring a lot into these project partnerships. Across CO2 surface processing, transportation, and permanent storage within geologic formations, we have a large organization today built, trained, and ready to do this. Important in our capability system is understanding how to build and operate robust monitoring mechanisms that ensure mechanical integrity, safety, and environmental protection. While each sector and geography presents unique variables, we appreciate the opportunity to partner or play an advisory role in many of the significant CCUS projects moving forward in the U.S. today. Ultimately, this work helps develop a broader integrated carbon value chain, where we can include our other complete technology and product offerings.

We’ve also learned that an integrated capability can build competitive advantage through operational efficiencies and economies of scale. Let’s move to the next slide to share more on how that fits. In terms of point-source markets and drivers, we have been working through a process of analyzing point-source capture locations within and outside of our operations for
favorable sequestration. We started our effort with key analysis of geology, access to rights of way for CO2 transportation, and the concentration of industrial emitters.

Naturally, the U.S. Gulf Coast is an important location and one we are working. Using that as an example, we show that right now, a small subset of total admission volumes are economic. Some are economic based on 45Q tax credits and others require additional incentives based on a pathway to low carbon fuel standard markets.

However, we estimate a moderate increase in CCUS incentives will unlock substantial available volumes for economic capture and sequestration, and we are positioned to help. Additionally, as we move CCUS forward across industries, the economies of scale will improve and key to starting this is hub development, so let's go through that next.

Sequestration hubs will enable us to develop shared infrastructure as an economical and practical means to aggregate the capture and storage of CO2. These hubs will be located at the intersection of suitable geology and concentrated industrial emitters. This will facilitate CO2 inputs from multiple industrial facilities and Direct Air Capture, all transporting their CO2 into this centralized hub. We’re anticipating that each hub would have at least 6 MTPA of sequestration capacity. They are designed with more than three CO2 injection wells and more than five monitoring wells, which allows monitoring of the CO2 in the formation. Rather than starting from scratch with individual capture and sequestration projects, participants can simply plug into a hub, making everything easier to develop and finance.

For this part of the business, our development plan is at a current support scenario, is focused on low-cost capture projects that have shown economic feasibility. To that end, we’re planning to develop multiple hubs in the U.S. and expect to have three online by 2025. In the near term, we expect to secure more than 100,000 net acres for these sites by the end of 2022 and to have filed multiple Class IV permit applications for dedicated injection wells. Today, we have approximately half the acreage secured, and we are on track.

There’s a real interest among emitters, and we appreciate the progress we’re making together. Again, in commercial discussions with point-source emitters, we’re in discussions that represent more than 40 MTPA of emissions to support these hubs. Bringing three hubs online would mean 18 million tonnes per annum of dedicated sequestration capacity. Right now, we’re working future hubs in parallel and are making good progress.

To note, just recently in Project Tundra, where we are sequestration partners, the Minnkota Power Cooperative received approval from the EPA and the North Dakota Industrial Commission to permanently store CO2 in a geologic formation near Center, North Dakota. While we work these opportunities around the U.S., we have also continued to advance large-scale CO2 storage in our Permian position, including expansion into saline formation. Oxy currently holds 3 EPA-approved monitoring, reporting, and verification plans or MRV plans for our CO2 EOR programs. In fact, we were the recipient of the nation’s first such approval several years ago and now are using this capability across our hub developments.

As we have noted, our integrated CCUS plans are set to deliver several key low-carbon products that fit ready markets. Now we’ll go into a bit more detail about how these products are verified as low carbon and how they connect into these markets.

Very important to note, none of this works without high integrity, transparent carbon measurement protocols and methodology surrounding the full life cycle of CCUS operations.
This is another area we were able to leverage our strong CO2 operating history and assets. For many years, our EOR operations have rigorously managed CO2 as the key essential feedstock to that process. Our technical systems and operations have been built to handle and measure CO2 as a precious commodity. From that, Oxy has been at the forefront of utilizing CCUS protocols and reporting under MRV plans to prove safe and secure geologic storage.

As I mentioned earlier, we have three EPA-approved MRV plans that account for the CO2 volumes sequestered in geologic formations. We’ve been reporting under these programs for over a decade to generate 45Q tax credits. In addition, Oxy has filed the first California Air Resources Board reservoir permanent certification for EOR to generate Low Carbon Fuel Standard credits. Finally, we are also a founding member of the important CCS+ initiative, which is developing an expansive set of CCS methodologies for use in voluntary and international carbon markets.

I know I touched on aviation as an opportunity in the opening, but I wanted to return to that market again to help illustrate the unique fit and need for our products in this leading and developed low-carbon fuel market. The aviation industry has set ambitious objectives for CO2 emissions reduction by 2050, and that is creating strong demand for solutions. For many years to come, it is expected that the international aviation industry, governed by ICAO, will utilize both offsets and sustainable fuels in the portfolio of emissions reduction solutions. Over the next decade, carbon offsets will drive the supply in the market due to current availability, scale, and cost. While there are other low cost carbon offsets available, the durability of Direct Air Capture and sequestration and the ability to create a pathway to a fuel is a great fit for aviation.

We also see this market moving towards offsets that create durability of the carbon removal. The ability to precisely quantify carbon removal and permanent CO2 storage is an important solution within the carbon offset market. Direct Air Capture is also attractive due to its scale advantages. The ability to use air for feedstock and utilize large volumes of geologic storage overcomes today’s scale issues with other offsets and fuel-based solutions. Direct Air Capture is also fast and enables rapid removals that society needs by 2050. Additionally, cost is another advantage. At today’s estimated cost, Direct Air Capture Carbon Removal Credits are 30% to 40% less cost to reduce emissions when compared to current sustainable aviation fuels.

Over time, sustainable and low-carbon aviation fuels will begin to come down through scale production and better logistics, and we’ll eventually see a much more balanced mix of offsets and fuels. As this occurs, we’ll be positioned to help. In addition to Carbon Removal Credits, the other product we enable with Direct Air Capture is sustainable aviation fuels. These will be developed by co-locating fuel synthesis facilities alongside Direct Air Capture with the capability to produce both a low-carbon jet and diesel fuel.

Again, we are advantaged due to scale and cost. Using air as feedstock, utilizing our specific Direct Air Capture technology type and the ability to locate almost anywhere with less logistics constraints provide the advantage. We expect Direct Air Capture AIR TO FUELS will be the lowest cost sustainable aviation fuel by 2050. Finally, DAC CO2 can also be a feedstock to create net zero oil for a low-carbon aviation fuel pathway. We’ll talk more on this product in a moment, but it represents a known product with a known carbon reduction in a logistics system that fits today.

Next, just a brief on our AIR TO FUELS technology. We’re making progress with Carbon Engineering’s air-to-fuel process that will enable us to efficiently bolt on different fuel synthesis technologies to the DAC. Again, these technologies will provide a much lower carbon liquid fuel.

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that fits today's logistics and infrastructure in addition to the scale and cost advantages I noted earlier. The other option in the near term for some will be using Direct Air Capture to produce net zero oil.

Net zero oil pairs Direct Air Capture with existing CO2 EOR infrastructure and production. Through this closed-loop system, we can proactively capture and permanently sequester the life cycle emissions for a barrel of oil to create a net zero product. Net zero oil can play an important role in the energy transition by significantly reducing the emissions associated with an existing product. While zero-emission energy, fleet electrification, and other solutions progress, net zero oil is a near-term product that limits growth in atmospheric CO2, while providing a fuel that fits with current infrastructure, logistics and transportation systems globally.

With significant production today and an attractive low price breakeven, the growth potential for EOR to net zero oil can be meaningful for Oxy's future. A lower-cost CO2 sourced from the atmosphere enables a new value from our existing assets. Beyond utilizing anthropogenic CO2, our OLCV technology advancement improves our existing businesses across Oil & Gas and OxyChem, both to reduce costs and to reduce emissions.

Putting these pieces together, we wanted to summarize how we think about revenue support and cost for CCUS as we look to build low-cost, low-carbon commercial product supply. Revenue support will come from two categories. First, the voluntary and compliance market, which represents business customers seeking to decarbonize their operations or fuels, either due to direct business value or from regulatory compliance systems.

Early voluntary participants are stepping up, and we greatly appreciate their partnership. We shared joint recognition of CCUS as a near-term and large-scale solution that is needed for global net zero. This support comes from early adopters like Airbus, United, SK, Shopify, and ThermoFisher. Examples of compliance markets include State Low Carbon Fuel Standards and CORSIA.

The second support category is policy. This captures global policy incentives to catalyze CCUS while we bring costs down and the voluntary and compliance markets grow. Today, those include notable support mechanisms like the U.S. Federal 45Q tax credits and recently passed U.S. Infrastructure Investment and Jobs Act.

Currently, the voluntary and compliance markets provide the most commercial support, but increased global policy is a critical step to enable us to accelerate our developments and provide lower cost products earlier. Again, this support catalyst is a support catalyst that enables us to move beyond one plant at a time to provide economies of scale and leaps and innovation for cost reduction.

We are noting that the combination of voluntary and compliance market support will help support CCUS point-source and Direct Air Capture through this decade. This will allow us to reduce cost, while it's still relatively smaller volume scale, to then have cost and growth capability in place beyond 2030. This can help provide both the carbon reduction needed to reach net zero and at a cost that can fit our collective global economics.

Initially, this intersection of investment returns, product cost improvement, and utilizing policy support responsibly is a critical balance and one we know we need to deliver well for each stakeholder. Given our integrated approach with technology and business on the complete carbon capture value chain, we are equipped to start and are confident in our ability to drive
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costs down to make this successful. Longer-term, as we have done in our current business, we have to win at capital efficiency and as a quality low-cost operator.

With that, I'd like to turn the presentation over to Rob Peterson.

**Robert Peterson**  
Thank you, Richard. As discussed on the most recent earnings call, we plan to deploy between $100 million and $300 million of capital through LCV this year to advance our net zero pathway. The capital we intend to allocate to 1PointFive follows our 2022 cash flow priorities and is included in our capital budget of $3.9 billion to $4.3 billion. The capital allocated to 1PointFive will fund the construction commencement of DAC 1 in the Permian Basin beginning in the second half of 2022 once FEED is complete. The total cost of this first industrial-scale DAC plant is expected to be approximately $800 million to $1 billion.

The FEED study is being conducted for a plant initially sized at 500,000 metric tonnes of atmosphere capture from a single train, with an option to add a second train, which would enlarge the plant to its full capacity of 1 million metric tonnes of atmosphere capture per annum. The scaling factor to double the capacity of DAC 1 is estimated to be 1.6.

The 2022 capital range for 1PointFive is largely dependent upon the timing of FID for DAC 1 and our progress in developing the sequestration hub Richard discussed. This includes allocating up to $100 million of capital for preconstruction spending and securing the acreage necessary to bring hubs online by 2025. Sequestration hubs, which will be located in the U.S., will support our DAC and point-source capture development by serving as an accessible location for the safe and economical storage of CO2 in saline formations.

As we have discussed, the market response we received, coupled with the current policy environment, is supportive of evaluating additional DAC investments. We are considering locations outside of the Permian for the second plant, such as co-locating with a sequestration hub. Allocating capital to de-risk these opportunities early on preserves value for our shareholders, while retaining future optionality to fund these subsequent projects with other sources of capital, which we will discuss in the next slide.

I'm sure you can sense how excited we are to advance our net zero pathway. The opportunities in front of us are immense, but we want to be clear that key investment criteria must be met before we proceed with any investment. We will consider a progression of these key criteria, highlighted at the bottom of this slide across future stages of development. The development scenarios we have provided today need to be substantiated as we move forward with more definitive development plans. Obviously, the opportunity set is large and even under current policy scenario includes an estimated 70 DACs by 2035, a magnitude that will require funding outside of Oxy's historical capital allocation program. There are many funding options available to us, including project financing, the presale of carbon removal credits or other types of CO2 feedstock, or eventually the sell-down of 1PointFive equity.

In the near term, as we've outlined for 2022, we will focus on applying Oxy capital in a disciplined manner to de-risk the investments and to advance our decarbonization goals. Additionally, we will continue to focus on securing external source of capital through a combination of government programs, the presale of carbon removal credits, and strategic equity, seeking a combination will deliver the greatest value to our shareholders. As DAC is derisked and enters manufacturing mode, this brings forth the opportunity of low-cost carbon capture and our broader landscape of funding strategies.
We will continue to review the funding strategy that delivers the most value for our shareholders as the magnitude of capital required expands to capture the full value of the growing market and policy support. Through these later stages of development, Oxy anticipates minimizing and potentially eliminating the capital needed to allocate as 1PointFive becomes self-sustaining.

And with that, I’d like to hand it back over to Vicki for a few closing remarks.

Vicki Hollub
Thank you, Rob. I’d like to close by reiterating that our low carbon strategy adds value to our business while helping us to take real steps forward on a path to net zero, not only in our own operations but for the broader global economy. The positive impacts made possible by the integrated technologies and projects we’re deploying represent a key milestone and a tremendous opportunity. We’re adapting existing resources and advantages to fit a changing world using new thinking, approaches, and technologies.

Sometimes, history puts you in the right place at the right time with the tools you need to do something extraordinary. Today, as climate targets demand action to keep the world on track, Oxy’s 100-plus-year legacy has brought together just the kind of global assets, diverse team, existing infrastructure, operational discipline, and problem-solving mindset needed to tackle a challenge like achieving net zero. We’re perfectly positioned to bring together a strategic integrated vision with the ability to deliver through proven execution, not just for ourselves, but for any organization willing to commit to CO2 emissions reduction and climate progress.

I’m honored and humbled to work alongside this team and our partners as we help move not just Oxy, but global CCUS forward. I appreciate the opportunity to share our progress with all of you here this morning and look forward to taking your questions. We’ll now move to Q&A.

QUESTION AND ANSWER

Operator
We will now begin the question-and-answer session. To ask a question, you may dial in and press star then one on your touchtone phone. Dial 1-412-317-5417. If you are using a speakerphone, please pick up your handset before pressing the keys. To withdraw your question, please press star then two. Please limit questions to one primary question and one follow up. If you have further questions, you may reenter the question queue. At this time, we will pause momentarily to assemble our roster.

Our first question comes from Scott Gruber with Citigroup. Please go ahead.

Scott Gruber
Yes, good morning, and thanks for the very detailed presentation this morning.

Richard Jackson
Great. Thank you.

Scott Gruber
So--you know, looking at Slide 25, you aim to reduce the DAC cost by somewhere between 1/2 and 2/3 depending on where DAC 1 lands. Can you just speak to the greatest areas of deflation potential and what are the key challenges to achievement? And a little bit on timing--you know, when do you think you could achieve those kind of big steps down in deflation?
**Kenneth Dillon**

Hi, there. It's Ken here. I think you've got to look at DAC holistically. Basically, what we're doing is moving large amounts of air and contacting that air through packing. That takes both capital in terms of building the air contactors and also takes energy to move the air. It's what we're working on at the moment, is improved packing. That improved packing means that we can reduce the amount of energy used to move the air through the units, and it also means that we can make the units significantly smaller.

Where that then leads you, is to the potential to get into manufacturing mode and in a dream scenario, if you could imagine a Gigafactory manufacturing air contactors, putting them on railways and moving them to locations all over the U.S., you can see what we're aiming for here. Same with the pellet reactors. People have asked why we chose the sizes we did, and then it's really conservatism. We wanted to stay with equipment that's currently being used and current sizes. So we believe we can significantly reduce the number of pellet reactors as we move forward and gain experience.

Similar to Wright’s Law, it’s putting in the effort to reduce the costs over time. So we can see significant reductions long-term. And again, looking at it on a cost of capture basis, we’ve assumed a design life here of 25 years. Most plants will last 50, 75 years, and it’s a case of working through during operations to see which things need to be modified or adjusted to get you to that sort of design life. So it truly is a holistic view with everyone working together with individual items and innovation tasks to reduce the cost. And I'll pass you over to Richard now.

**Richard Jackson**

Yeah, just--I just wanted to add a little bit to that. So if you back up and you think about how we get beyond Plant 1 into the next generations that we're working, I think it's back to that integrated discussion we have. It's things like the other pieces like NET Power for power generation and being able to scale that at lower cost. Obviously, renewables in the U.S. is helping us through partnership to co-develop that. But the economies of scale is the other piece. So hopefully, we were clear that as we think about these hubs and future placement of Direct Air Capture, being able to have that shared infrastructure, shared zero emission power supply, these things all work together to reduce the overall cost.

And--that's for me, very interesting because now we take that back where Ken started, which is how do we design this both from a capital and an operating level today. And many pieces of that have been what we've done for a long time in our business. And so it's interesting now we get to take that into a different approach.

**Scott Gruber**

Got it. And just--we've seen a spike in pricing for various items here recently, given what's happening geopolitically. Do you guys feel like you've captured the recent trends in cost inflation, whether it's for materials or labor in that $800 million to $1 billion number for the--for DAC 1? Realizing OxyChem is going to be a key supplier, but--do you guys feel like you have a good handle on costs and construction costs, including labor, kind of given recent trends?

**Kenneth Dillon**

Great question. First thing I'd point out is this is not a typical project like a gas plant. So materials for this project, as you mentioned, include PVC from OxyChem, but large quantities of
fiber glass, concrete, and less steel than you would normally see in a large project. Labor is about 1/3 of the capital cost. And then labor inflation is usually in West Texas as a result of Gulf Coast activity in construction projects rather than oil industry inflation. And in steel, we don't have significant exotic materials so we're not dependent on high-end foreign mills, impacted on what's going on just now.

Yes, it's driven by the macro market, and there's been a bounce following the events in Europe. But if you look back to last October from U.S. mills, the index would have been, say, 112. Today, it's about 70 after dropping to 50. So there's a bounce from 50 to 70. Our costs were generated late last year.

And the other thing I would say is, we're out to bid for everything at the moment in terms of supply chain disruption. I think you're looking at small elements being impacted on supply chain disruptions. So like electrical, small electrical systems that everybody wants rather than the bigger scale issues. So difficult to give a precise number with everything that's going on at the moment. We will have all our bids back before FID. So we'll have a good handle on where our costs are in the summer. And I would say, I think we've included as much as we possibly could in the estimate.

Operator
Our next question comes from Doug Leggate with Bank of America. Please go ahead.

Doug Leggate
Well, thank you. Good morning, everybody. So folks, there's a lot of information here. A lot of mights and coulds and targets and aspirations. But previously, I think, Vicki, you've talked about the scale of this business could be as significant as your chemicals business, so I wonder if you can offer any specifics on visibility and how you-- whether you still believe that to be the case? And any confirmation or confidence levels you have on the trajectory to get there.

And then my follow-up, it might be for Rob, but obviously, there was some notional economics, both in this deck and the detailed deck. But there's really no projections that we can hang our hat on to put--at the end of the day, there's a lot of climate issues here and CO2 sequestration issues, but there's no real definition around value. And what I'm trying to understand is what is the value proposition here? Is this a license to do business or is it a meaningful value driver for Occidental? I'll leave it there. Thanks.

Vicki Hollub
So Doug, I'll just repeat what we've all said in the past. This started out as a way to enhance the value of our existing operations, and it will do that, as Richard stated, by providing a long-term, sustainable, lower cost source of CO2 for enhanced oil recovery, both our conventional and our shale reservoirs. So that was the original reason that we started all of this.

However, then we evolved to a point where we can actually make our business sustainable too, through this process by offsetting our own emissions, Scopes 1, 2 and 3 as a part of our strategy here. So it does make the business sustainable, too. However, the next step for us was realizing that this can also be another value-adding business and that is when we transitioned to viewing ourselves as an evolving business to where we would have our carbon management business, as we've described it in the past, which would include the value proposition for doing this for others.
And I would say that from the first time that I said that I believe that this business will ultimately create more value or make more value for Oxy than our chemicals business was when I realized that there's going to be a significant and growing voluntary market here. We've noted in the slides that a lot of companies have committed to becoming net zero because corporations and CEOs are realizing that for us to mitigate climate change in the world, it's absolutely necessary that we take steps now to do that. There's just not going to be enough other alternatives for CO2 offsets for corporate America and corporations around the world.

So this is a sure opportunity and a way that we can definitively store and keep captured CO2, either underground or through products forever. And so it's a source for others to make their path sustainable too. So it will ultimately become a business for us and will be equal to soon, or at some point, equal to chemicals and then we'll surpass it.

That outline, we tried to give you kind of an indication of what that would look like with the 70 and the 135 plants, those two options. We do have a road map to get there and a model. And the creation of value is what we also wanted to help you understand through the slides today and through more work on understanding the technologies tomorrow.

**Robert Peterson**

Yeah, Doug, and I'll build on some of the things that Vicki outlined for. I think she outlined you the value proposition pretty well for the company. I think looking back at Slide 17 that Richard showed in the presentation, really showed that intersection of three key components, which is the technology readiness, which Ken and Richard went through pretty thoroughly, which we have a lot of control over in terms of driving down the cost of DAC ultimately or other technologies for sequestration and capture. But there's also the market demand, which Vicki outlined, and a lot of companies have gone out there and established key targets and what I would consider cost to stay in business on their end in order to meet these carbon objectives.

And ultimately, there's going to be intersection of those two, combined with policy support that we think is important in terms of getting to where we'd like to be sooner than later. Policy can certainly be a catalyst to allow us to more quickly drive down the cost of technology and meet the market demand. And so as those three come together, it creates the value proposition. Now obviously, our biggest control point is over the technology side, but ultimately, in order to meet the demands that are put out there, whether it's the CORSIA things that Richard outlined or any of the other decarbonization of markets, it's going to require solutions. And we think that this is a key solution for those hard to decarbonize markets.

And then beyond that, I think we laid out on Slide 19, all those interconnectivity pieces that we have in order to drive out and deliver value based on our existing operations and investments in new operations through Direct Air Capture and sequestration hubs and point-source capture. So I think that there's a combination of those. I can look at the net zero oil piece, which I think is the foundation that Vicki laid out at the beginning when we started this. We list out several early adopters on Slide 20, that have executed agreements to purchase carbon removal credits from DAC 1. We've also included in the announcement of SK this week who's agreed to purchase the additional net zero--the option for those net zero oil barrels. And I think demonstration of the technology and social acceptance are two key parts in driving how quickly we decarbonize these difficult environments.

As we sit here today without a DAC operating, and fossil fuels essentially in the crosshairs of many when it comes to decarbonization, it's a more difficult to sway public opinion where we sit here today. But as we've shown, AIR TO FUELS is the pathway for up to 50% of sustainable air
fuel with a tremendous cost advantage versus some of the other options to bring scale to DAC. But also, we believe as we demonstrate DAC as an effective scalable solution and drive down the cost per tonne of removal of carbon through DAC, as you showed in the presentation, that the validity of net zero oil to EOR will become more apparent and acceptable to air and heavy transport. And so we think as EOR becomes more and more important tool to extract resources from basins like the Permian, particularly as it declines over time to bolster further support from net zero oil.

So we think the value proposition is there. We're just on the front end of it right now in the early days, ultimately, and we're setting the groundwork. And that's the reason why you saw a lot of discussion about the other factors that are outside of our control, which could be catalyst to bring it forward or could cause delays potentially. But I think that what we've seen here is that we're taking concrete steps to move forward and advance our technology and make Oxy's impact on carbon.

Doug Leggate
I appreciate the answers, guys. We'll explore it more tomorrow. Thank you.

Operator
Our next question comes from Phil Gresh with JP Morgan. Please go ahead.

Philip Gresh
Hey, good morning. Thanks for taking my questions. First, I just wanted to follow up on some of the capital funding considerations that you outlined here. As you think about, say, the next couple of years, would you say that the capital required would be similar to 2022? Or do you think that would increase as you bring--start multiple plants under construction? Or is there just a general way to think about how much you want to cap Oxy's specific spending for these projects?

Vicki Hollub
I would just say, it's too early to tell on that. We're really early stages. We're going to make that evaluation as we go forward. We still have quite a few things that we're working on. And that the progress of those will really determine how we would do the financing beyond this year, but we'll have more information on that to come.

Philip Gresh
Okay. Understood. And I guess a second bigger picture question, obviously, we're early in the investment phase here of this opportunity and it would seem like Oxy's stock doesn't get a lot of credit for the long-term opportunity set. I'm sure you'd agree with that. So is there a way you think about making sure that Oxy does get credit for the value of this opportunity? Would you consider other ways of either separating the business out? Or do you feel like you want to keep it within Oxy and the value will just accrue over the long-term? Thank you.

Vicki Hollub
I'll just say real quickly because we want to try to get you as much information as we can to help you understand the value proposition. But this started out as a way to improve our CO2 projects in the field and has now evolved pretty quickly into providing the sustainability for our own business, and now going beyond that to provide sustainability for others, but with value creation from doing that. So it's evolving so quickly that what we're trying to do is ensure that we--as we do with our current assets, we always keep our eyes open for opportunities to create the most value. And so where we are today as we try to determine what that's going to be over time and

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so we're staying open to that. But I'd like to pass it over to Richard to go into more detail about how we think about that.

Richard Jackson
Yeah, thanks, Vicki. Quickly, I just want to tee up Tony here. I want to keep going on the discussion of value that we started with the earlier conversation. So certainly, these pieces, and it ends up in products, we believe that markets that can help us today, but then grow into really that value for tomorrow. But maybe, Tony, you can talk through some of the value pieces for us.

Anthony Cotton
Yeah, hey Phil, this is Tony. You bring up a good point here. This sort of opportunity, it's longer-dated cash flow as the opportunity de-risks over time. That's not something that sort of typical oil and gas analysis would necessarily capture within a valuation model where you're valuing on free cash flow in '22 or '23.

So I think we've given all the pieces here within the deck as to how to value this opportunity, particularly on the long deck, Slides 63 and 64. I'm very confident that you can get to a sort of DCF cash flow analysis based on that information and all the disclosures we provided today. And so we really see this as an opportunity for sum of the parts analysis to be able to individually value this within Oxy stock.

Operator
Our next question comes from Devin McDermott with Morgan Stanley. Please go ahead.

Devin McDermott
Hey, good morning. Thanks for the very helpful detail today. I wanted to ask my first question, just kind of following up in a bit more detail on the near-term financing plans, and maybe more specifically, if we think about the DAC 1 plant and that $800 million to $1 billion of capital for that facility. How do you think about the building blocks to funding that? What is the kind of net cash investment you envisioned for Oxy? And then given offtake arrangements and policy support that's in place today, how much project financing or other kind of capital at the project level do you think that can hold?

Richard Jackson
Hey, Devin, this is Richard. I'll start, and then we can kind of combine on the answer. I mean I think you got it right. We've got some real milestones coming through this year. As Ken said, we're finishing our engineering and understanding, not only the basis of design for a cost estimate, but also understanding sort of where supply chain is going to end. So that will be an important consideration.

But obviously, where does the market go? We put a slide sort of in the back, around Slide 38 that shows some of the makeup and some of the pieces as we start to think of that. But these early business support mechanisms do a lot to de-risk that, like you said. So being able to take that voluntary and compliance market and fill out firm sort of offtake really does a lot to de-risk it. But policy globally continues to help as well, and Direct Air Capture has a unique ability to tie into that through the atmosphere. And so we'll see where that goes not only in the U.S. but globally.

And so then-- as we think about sort of the S-curve on construction and getting into meaningful capital spend that really starts in the next year. So that gives us the opportunity this year to continue to look at that, understand where strategic partners may want to play in terms of
offtake or potential equity participation. And so I think those variables will help us make an informed decision on Plant 1 as we go into the end of the year. But the final thing I would say is, we think about Direct Air Capture Plant 1, but we really want to be thoughtful about what are those capital solutions and how does that play forward into our ultimate development plan. And so I think we'll try to be thoughtful and have some good partnership opportunities that take us not only through Plant 1, but beyond.

Robert Peterson
Yeah, and I'll just add a bit, Devin, to what Richard said in terms of, originally, our timing for DAC 1 as we started talking about this project externally was really coinciding with our most difficult period of liability management and liquidity preservation. But we were committed to moving forward with the project and addressing our maturity walls and leverage during that same period. But fortunately, the combination of all our efforts to drive down our opex and reduce our capital intensity, coupled with the favorable commodity prices, both in our chemicals business and Oil & Gas business has allowed us to not only address those maturity walls and delever over that period of time, but also most recently increased the return of value to our shareholders.

And so that's allowed us to pivot a bit and put Oxy's capital as we outlined at $100 million to $300 million in this year's budget to continue on the de-risking path that Richard's outlined. And again, we feel the optionality as we preserve. The further we can get down the de-risking platform, get through the FID part of the decision, complete the FEED study, it does enhance our ability and our discussions with the external sources of capital that we didn't have prior to have those things complete. And so part of that pivot is in place. It doesn't really represent, as Vicki pointed out, a commitment to what we're going to do in '23 and beyond, but it's the right decision for our shareholders this year.

Devin McDermott
Got it. That makes a lot of sense. And it sounds like given the offtake arrangements that you have in place, that there's the opportunity for some level of project finance, kind of low-cost attractive financing there at the DAC facility that would reduce the Oxy direct equity commitment here versus that $800 million to $1 billion?

Robert Peterson
Yes, sir. Really adding some surety on the revenue side helps with that sort of financing.

Devin McDermott
Yeah. Okay. And then my follow-up question, I wanted to just ask on the carbon hub business model. I mean that seems like a very scalable and attractive strategy. And I like how you highlighted the amount of kind of opportunities that sit today within the current subsidy regime that we have that are economic in the Gulf Coast specifically. I was wondering if you could talk a little bit more about how you envision the business model there. Are you providing transport and storage services or some type of fixed fee? Are you investing directly in capture and providing full-service suite across the value chain for third parties that are emitters? How do you see that business evolving?

Richard Jackson
I'll start with yes. I think-- we envision it is an integrated solution, as you think about capture the transportation to sequestration. The good news, both from a project development standpoint and a capital standpoint is what we find is it takes--it's going to be partnerships both in these
projects and these hubs. And so clearly, where we’re focused and think we bring a lot of value is in the subsurface.

So being able to do that work around developing a sequestration site, using all the technical skills and systems that we have in place across Oil & Gas, but also specifically to EOR, we think brings a lot to the table. And so I think that’s where you’ll see us most focused. But we have separation and transportation experience, too. So you think about separating CO2 that we use in our system for EOR. We have 14 processing plants that have been working with this for decades that understand different technologies to manage that separation. And it’s very similar to how you think about separating CO2 from a fluid stream or transportation systems and how we manage long-term pipelines.

And so we'll play a role in all of that. And we do believe-- you got to think about it an integrated way to hit those economies of scale for cost, but we'll be focused ultimately on that subsurface piece. And Rick, anything else to add?

**Rick Callahan**

I guess--this is Rick. Thanks, Richard. I'd just add, we're also looking at how we're going to integrate Direct Air Capture facilities on the surface of these port-based locations as well. So it's that—and the future, obviously, Direct Air Capture will anchor some of these and lead the development in the early days. The point-source will be ahead of that as we're building the first DAC plant in the Permian, but we certainly look at an integrated approach going forward.

**Richard Jackson**

Maybe just one last one to tie to your question--part of your question too. I think the economics, obviously, 45Q did a lot to help move some meaningful projects forward. But pathways to Low Carbon Fuel Standard credits help as well. And so a lot of these fuel pathways that we note, both for Direct Air Capture apply to these point-sources as well. And so if you think about the revenue versus the costs, those are things that can help move forward together.

Last piece, over time, we think same thing for this compliance market or even voluntary market supports low-carbon products. So if you think about—and it's happening, steel, cement, other products are finding markets for value based on lower carbon intensity. And I know we've got a slide in our deck that points to that from a fuel perspective, but those are the type of things in addition to policy that will take us from sort of that current support case into the net zero case for that part of the business.

**Operator**

Our next question comes from Neil Mehta with Goldman Sachs. Please go ahead.

**Neil Mehta**

Good morning, team, and thank you for this update here. The first question is around LCFS. And as you say in the deck, you filed with the CARB about EOR and getting LCFS credits. Talk about where you stand in that process. When do you expect to get an update? And what would that mean for incremental cash flow from your enhanced oil recovery business?

**Rick Callahan**

Yeah, the process--the application for the first field and the second field is already in CARB, well down the review process. CARB is almost in the finalization of the first review. And so I think in the coming few months, you'll see that one come out and then the second one is in process and queue right behind it, so.
Neil Mehta
The next few months. And have you guys sized what that could represent in terms of incremental cash flow?

Anthony Cotton
Hi, this is Tony. So that first deal that's being certified or--we expect that approval here shortly. That's really underpinning the Project Interseqt, which is what we see as the model CCUS project out there, where we're capturing or plan to capture CO2 emissions from 2 ethanol facilities. We've partnered with White Energy on that project. We're currently in the financing stage for that project. What that enables you to do, by having the LCFS in that project, is really materially improves the CI of that ethanol, right? So I don't want to disclose exactly what that is, but there's a material improvement in the carbon intensity in that ethanol which will generate--you know, substantial LCFS credits.

Neil Mehta
That makes sense. The follow-up is just how you guys are thinking about hurdle rates for these investments? I think in the slide deck, you talked about a 7% WACC for the Direct Air Capture. But what's the target return that you would--are willing to underwrite for investment? And then talk about--step back and talk about how that compares with the rest of the portfolio. In other words, how do you manage to ensure that this is not ultimately going to be returns dilutive to the firm?

Richard Jackson
I'll start, and we can share it if we need to. I think, obviously, this is a development play, where cost down is very important. And so you've got to take a longer-term view. However, every dollar we spend we think about returns. And so I think ultimately, this has got to be cost competitive with our portfolio to put Oxy's money to work. As we look forward, again, that sort of cost down opportunity, we're very confident in terms of how that plays out against the markets that we summarize on that Slide 38 in terms of how we do it.

So I think, again, from a return standpoint, the other attributes I would tell you is, similar to our OxyChem business, being able to have cash flow without decline could be very meaningful. And so we think about our EOR business and the low decline nature of that production stream, being able to have that portfolio mix of competitive returns, but also a mix of decline rate or cash flow decline rate, we think, could be very helpful as we go forward.

And finally, there's just the integrated nature of what we're doing. So we try to show that on the last slide, whether that's lower-cost CO2 into the business or things that provide cost to the business today that these developments pull out, like power through our NET Power development. So I think we think about, it's got to be competitive. It's nice that it's longer, lower decline than other cash flows in our business. And ultimately, it saves cost, which I think is the other value that's probably underappreciated when we think about this.

Vicki Hollub
And I would add to that is, just to reemphasize, we are retaining as much flexibility as we can. And just by spending the $300 million that we'll spend this year, or $100 million to $300 million this year, what that gives us is the opportunity to further de-risk what we're looking at and to see how the markets evolve. And we're very confident of how that will evolve, but that still leaves us
the other options that will ensure that we're still maximizing the value of the dollars that we spend and still focusing on our core business. And that's the other part of the strategy that's really important to me, is to make sure that we don't get out doing something that we don't have the capability and competency to do and that couldn't improve the existing business that we have.

Robert Peterson
And Neil, just to clarify on your 7% comment, I mean that was provided as a way to model a long-term project like that, not indicative of what we expect the returns of the projects to be. It's solely for you to come up with that levelized cost of capture, not something we're trying to signal otherwise.

Operator
Our next question comes from Neal Dingmann with SunTrust. Please go ahead.

Neal Dingmann
Morning all. Thanks for all the details this morning. My first question is for Vicki. Vicki, not too long ago, I believe, trying to think it was a few conference calls ago now, I think. You suggested you'd like to see either better credits or direct incentives other than just the Q45 credit to push activity--your activity even more aggressively. I mean, you're definitely pushing it, but I'm just wondering, I guess my question is, how do you feel today or you and the team feel today about the environment for credits and other incentives that are out there for either the DAC or point sources capture type work?

Vicki Hollub
I really feel like that's going to happen. I don't think it's a if, but I think it's a when because there's--when is it going to happen and how is it going to happen? I think there's bipartisan support for that. And for us to achieve the goals that President Biden has set out for our climate mitigation, it's going to require some acceleration.

And again, for us, it's all about acceleration. We don't need the enhancements for what we're planning to do today, but to enhance it and to achieve what we've set out to do as a country and what the world needs to have happen to advance the technology. Those credits are very important for acceleration. Those in other countries around the world need to do similar things to advance the technology. So I do believe that it will happen, but whether it's a part of a stand-alone bill or included in something else, which has previously been a bit of a problem, I think it will ultimately happen.

Neal Dingmann
Okay. And then just a follow-up a little bit on this. Slide 20, I like where you lay out all these obviously, early partners that you have, either on the technology, engineering or even on that first mover and early adoption side. I'm just wondering really, could you talk--you discussed this a bit already this morning, but I'm just wondering on your arrangements, especially when you start with some of the engineering and construction with Worley and all. I just want to make sure I understand how you all are thinking about it or actually the cost and revenue sharing sort of takes place or some of this. Are you working with them just more on--I guess I'll just leave it more broad and just say, maybe talk a little bit more on how you guys are working with some of these. Is it a cost and sort of revenue share, et cetera, if you could talk about that?

Richard Jackson
Yeah, thanks for your question. I'm going to kind of--I think we'll split that into two. I mean think about certainly from a vendor standpoint in the construction, engineering, project management. As Ken described, the visionary vendor is important. And then maybe we can talk just a little bit about the offtake support in terms of customers.

**Kenneth Dillon**

Yeah, as I mentioned earlier, we're trying to assemble this team of visionary vendors with full support of the CEOs and the Boards of each company. At the moment, the engineering is being done under standard FEED type contract with no incentives. Longer terms, we envisage KPIs being involved for each step of the process, whether it's one DAC or multiple DACs. And again, I think each of the visionary vendors realize that in order to grow the business to the sort of scale that we've shown, it's really all about innovation and cost reduction. So the selection of the companies who understand the scale of this market is critical to the success here.

**Michael Avery**

And this is Mike here. So just to talk a little bit about the offtake agreements. I mean these are strong signals from big market players on the viability of Direct Air Capture, Carbon Removal Credits as viable solutions. I think a lot of companies, as pledges go up, they're starting to see that there really needs to be scalable solutions. And they're starting to weigh it up against the alternative costs that they've got as well.

So while we don't think that Direct Air Capture credits will make up 100% of anyone's portfolio, it's certainly going to make up a piece of it. And then as our costs comes down, that percentage will increase over time. And so to have this early signal from the market that the solutions that we're bringing to them are attractive is really important from a revenue securitization perspective.

**Anthony Cotton**

And finally, this is Tony. I think one that we skipped over that's really important here is Carbon Engineering as the really climate solution platform. And we've partnered with them in a very big way here. And obviously, we're licensing the technology exclusively here in the U.S., but with that, obviously, Oxy is taking a big step here in de-risking the first plant. And so we're paying a royalty to CE, and there's obviously an arrangement there around that royalty for that initial risk that we're taking.

I can also comment on SK. Obviously, that was a very sort of groundbreaking landmark type deal where multiple pieces of the value chain here are getting involved really to de-risk what is a very big potential opportunity for lower carbon aviation fuel. And so there's ways that we're going to be working together over the next couple of years to ensure that that's going to be a really valuable product to help decarbonate--decarbonize the aviation industry.

**Operator**

Our next question comes from Jeanine Wai with Barclays. Please go ahead.

**Jeanine Wai**

Hi, good morning, everyone. Thanks for taking our questions. Our questions are on Slide 63 of the larger presentation deck, which is the slide that has the illustrative DAC economics. Let's see, our first question maybe on the revenue side for LCFS, kind of following up on Neil and Neal's questions. We can plug in various LCFS price assumptions, that's not a problem, but can you talk about how much of the LCFS credit you actually capture since we assume that there are items that you're going to need to back out of that?
And our second question, the economics, they also mentioned selling credits in the voluntary market. And so can you comment maybe broadly on where you see the private market for credits developing versus what you need to achieve the 7% return on your levelized cost of capture? Thank you.

Anthony Cottone
Yeah, this is Tony again, and we'll try to break that one up because there are a lot of different aspects to that question. I think first on the LCFS side, very important program, and I'll talk more about that. But I do want to point out that sort of early movers that we pointed out here today, those are actually not being sold into the LCFS market. And much of those are actually pointed towards international aviation market.

And what we really like about that market is that there's actually limited sort of climate solutions and technologies there. Obviously, the LCFS market is growing and it's more ground transportation, and sort of light duty focused. And you get multiple or many different types of technologies, RNG, diesel, EVs that can penetrate that market. And in aviation, there's a lot less solutions, right? So that's why a lot of the focus on that market here today.

But getting back to LCFS, obviously, California has written the book on this market, and we've worked closely with them over the last several years to make sure that CCUS has a high integrity product for that market. I would just say that it's really the blueprint out there and that success of that market is breeding additional success. And so it's really going to other markets. We can point to Washington, Oregon, Canada, and more international and European markets. So we're really seeing a situation where the supply of low carbon fuels needs to be able to keep up with the growing demand in these growing markets.

Specifically for your question, sorry, it took me a while to get there, but really at the core of your question is, are there any life cycle analysis sort of losses on that? And that's something certainly that we consider when we look at Direct Air Capture as a technology. There are uses of certain fuels that would be a loss on that life cycle analysis. I would say that there's sort of a 10% loss but going down over time as we sort of reduce the use of certain types of energies.

Jeanine Wai
Great. Thank you.

Anthony Cottone
And then I think there was a second part of your question perhaps on the voluntary market?

Jeanine Wai
Right. So we were just wondering if you had any broad commentary about where the private market is for credit versus what these backfill that you need for the 7% return?

Anthony Cottone
So obviously, we've announced some material contracts here today. All the conditions and terms of that are confidential. Mike, is there anything else you want to add?

Michael Avery
Yeah. I think maybe just broadly, when we look at the voluntary market, what we're seeing is that demand is going up substantially as more commitments are made and supply is not keeping up. And there's also this other thing, which is a shift away from lower priced but
potentially lower integrity, all the vintage credits toward engineered solution removals and the value of that is recognized by the market.

And I think that the early signals that we’re receiving is that— you know, companies are willing to pay for that. Companies are starting to view their carbon liabilities as potential financial liabilities down the road. And so the importance of durability, permanence, measure—a good way to measure and audit the credit generation, that's getting baked into the pricing. And so we're seeing a lot of support for that, which is indicative of our early contracts.

Robert Peterson
And Jeanine, I would just add to what was said to say the ruling this week from the SEC regarding standard filing status of how much time you have to be more clear in your financial documentation of how you're going to get to these goals you've set will also help drive that voluntary market, because certainly, you got to start reporting on your pathway and how you're going to make this happen. And certainly, the things we've presented for these hard decarbonized markets, we think will be one of the choices people are going to have to make.

Richard Jackson
And maybe just one thing to add. I mean, back to aviation, I think the ability to have a bridge in technology that takes us from durable engineered credits today into a low-cost fuel pathway by 2050, that really drives the voluntary interest that we're seeing today. And so we appreciate that. We agree with the thesis and that's certainly where we're positioned to deliver.

Anthony Cottone
I think the last point here might be that we provided a cost abatement curve in the back of the deck as well. And so we pointed out where Direct Air Capture is a solution for those particular markets. And so you have to sort of gauge what the alternatives in those markets are, as well as our alternatives to sell into other markets such as LCFS.

Operator
Our next question comes from Leo Mariani with KeyBanc. Please go ahead.

Leo Mariani
Hey, guys, wanted to ask just a bit of a high-level question here. So just so I understand it, it sounds like, Oxy is clearly proceeding with its first DAC plant in the Permian construction later this year on by late ‘24. But when you kind of talk about expanding this business to potentially get up to 70 DAC plants, if I'm kind of hearing you all right, it really sounds like that's going to have to be driven by just larger government tax credits here over time.

And then as well, you certainly talked about kind of these private market credits where, certainly, folks are kind of maybe willing to pay for these directly to kind of offset their emissions. Is that really just the crux of this, is that you really need to see both of those markets just develop and the credits really improve to the point where you can say, hey, guess what, we will proceed with this potential for 70 plants here?

Richard Jackson
Yeah, no, appreciate the question and the clarification opportunity. No. What we see today is the global policy in place in this market that we're talking about, supports the development plan or the development scenario towards 70. I think where we've wanted to be clear is that balancing market growth, balancing cost, balancing supply chain, and balancing these markets are critical for us in terms of our stage gates for project delivery.
And so what we didn't want to say is that we're not very disciplined or thoughtful in the scenarios that we put together to manage that money being spent. But what we're saying in terms of the opportunity is current policy, the voluntary markets, which are really in front of the compliance market, and it's really in front of the compliance markets because we all agree and see that the future of compliance market, like CORSIA in aviation, are going to require this decarbonization path. Beyond that, we present the net zero case, which is, we stand back, and we look at what it's going to take to be able to proliferate these--the net zero economy, but we have a pretty good insight, at least on the on the value chain that we've described today. That's what it's going to take for us to have a shot at getting towards those total addressable markets that we put in the front of the deck.

And so it's this challenge of we know where we need to be by 2050. The markets are beginning to align because of the net zero pathways from corporates. Compliance is fitting the solutions together to be able to give reasonable guidelines from a compliance perspective. And lastly, the policy is there today to certainly get us going. What we view as an opportunity is that policy continues to accelerate. And so when we look at that disciplined development plan, what we know is that some early catalysts from policy over the next several years puts us on a parallel path to actually reduce cost by the end of the decade.

And when we look at 2030 to 2050, we have a lower cost solution for the world. And so we feel like it's a reasonable and a good investment to put the technology, the markets, and the policy together now and make that investment now to be able to provide that low-cost larger market solution for the next 20 years. So hopefully, that--you know, helps me put it together for you.

Vicki Hollub
And I just want to add, as Mike said earlier, we've been working this for several years, and we have seen a shift in the way corporations are looking at their business now. And to reemphasize what Rob said, that for those that weren't already thinking about it and already coming out with goals to become carbon neutral, there were a lot of those. And a lot of those have had conversations with us about how to get there and are participating and wanting to do bigger things. But for those that didn't have the aspiration already, they're going to have to develop it here pretty quickly.

Leo Mariani
Okay. And just wanted to ask you guys a follow-up here. So in the example of, say, DAC for EOR here in the Permian, just trying to get a sense of whether or not when you look at the business model and you create net zero oil, is it your expectation that buyers are willing to pay some material premium for this net zero oil versus just a regular-way barrel? And obviously, you announced this, I guess, sort of an option deal for SK to purchase oil here. So I guess in that scenario with SK, are they also paying some significant premium over just sort of a regular way barrel?

Anthony Cottone
Hi, this is Tony again. Yes, for net zero oil barrel, we would expect a premium. So sort of a decarbonization premium over the underlying commodity. This would be purchased by a refiner, and the value proposition to the refiner is that they're able to sell the product at the back end, the Jet A fuel that's been decarbonized to a lower carbon aviation fuel at a premium to their aviation customers that are flying internationally.
From a refinery perspective, it's a really interesting value proposition that they don't have to change sort of the sunk capital that they have in there over a long-term period, and it's a way for them to decarbonize their business.

**Michael Avery**
This is Mike, maybe just to follow-up on that. So--you know, the way to think about any premium pricing on a product that we make is--you know, it's the total cost of an abated tonne of CO2 into their model. And so whether it comes through something like a net zero oil, you calculate that back to a tonne of abated CO2 versus a credit, which could be measured on the same metric. And that's how you rack things up relative to each other and decide on how you want to shape your decarbonization portfolio.

**Operator**
Our last question comes from Matt Portillo with TPH. Please go ahead.

**Matthew Portillo**
Good morning, all.

**Richard Jackson**
Good morning.

**Matthew Portillo**
Just a follow-up question on the revenue side. Obviously, I understand there's some opacity behind some of these markets and some contracts you're still working towards, but I was curious in the outlook you provided for the current support from a policy perspective and the build above revenue, the $225 a tonne, could you give us a little bit more color? I guess, thinking through 45Q and the LCFS pathway, how much that might represent of the total $250 million on the lower bound case, just to give us some context around where that voluntary market is moving? It's kind of a follow-up question to one of the previous questions asked.

**Richard Jackson**
Sure. Yeah. I think when you look at sort of where we're at today, we've got 45Q and the ability to take it into a Low Carbon Fuel Standard credit market. And so you can look at those. Those are--obviously, we all track those a bit and so you can see how that stacks up. I think what we're seeing is the ambition and the need for this product for the future, is creating a voluntary market that can move with that. And so in different ways, obviously, there's certainty in terms of offtake that provide something more than what a LCFS-type market can give you. And those type of volumes and certainties and price are meaningful as we think about how to create the financing around these plants.

And so--I think that's how we think about it. Again, longer-term, we think both the compliance market will step with the voluntary market and hopefully with, at least in the short-term, some policy to help us move more in parallel. And so we see that across our value chain all the way to products. We've got interesting technology partners that we're working with on the back end. We described the AIR TO FUELS process, which is--get into more as we go with you guys with Fischer-Tropsch, but there's other technology companies like a LanzaTech that I think is more mature. We certainly appreciate a lot that are out there.

And so as you think about those markets, you can think about that value chain going fully to where we ended with markets today, but actually into those technologies today. And I think
we're all working together to firm it up and-, bring costs down over time to make this sustainable for our business.

**Vicki Hollub**
Could you clarify also what last--could you also clarify what LanzaTech is? I don't think we have that, previously?

**Michael Avery**
Yeah, I can do that. That's--so it's Mike here again. So LanzaTech is an ethanol production technology that uses gas fermentation. And so it's one of the pathways that can take atmospheric removed CO2 or CO2 as a feedstock coupled with hydrogen and turn it into an ethanol, which can be converted into jet fuel or other products down the road. So it's one of the technologies that we're looking at in and amongst the other ones.

**Matthew Portillo**
Perfect. And then my follow-up question is around the point-source business. Obviously, a bit of--more of a near-term opportunity to scale that. Could you talk a bit about outside of the Permian, just the existing infrastructure and reservoir opportunities you have in your portfolio to really expand on this business? Obviously, there's already potentially quite a bit of growth coming from this by mid-decade, but just kind of curious how you're thinking about your existing asset base and what you might be able to bring to the table as it relates to infrastructure and pore space?

**Rick Callahan**
Hey, it's Rick. I think the existing infrastructure, this is really outside of it. We're looking at saline and pore space along the Gulf Coast is a primary focus. Obviously, some other places in the country, but it's all around a saline pore space driven project. Infrastructure fortunately, along the Gulf Coast is one of the pipelines and things like that because the pore space is so prolific along the Gulf Coast, is you're really going to see hubs come along at various places along there that don't require as much infrastructure and things like that. And the emissions along the whole Gulf Coast are condensed enough to where you can get the hubs of the size we're talking about on a regular basis geographically.

**Robert Peterson**
To add to what Rick said, I think that's where we also view DAC as a differentiator with those hubs, ultimately because we can co-locate DAC atop saline reservoir, increase the base load for the entire sequestration project. I don't just think of it as just point-source, but that synergy with DAC is also something we think is a big differentiator for Oxy.

**Rick Callahan**
Yeah, and I guess the one thing I'd add to Rob's comment there is, having Direct Air Capture is one of your mission sources to anchor pore space and the hubs is a de-risking aspect from the point-source capture point of view, because emitters out there, industrial capture is trying to de-risk their side of the equation to get the full cycle from capture to transport to sequestration and where Direct Air Capture can anchor hubs. And those are off and running, and it makes it much easier for emitters to be able to get past the overall risk profile of--all they've got to do at that point is capture because they can see right line-of-sight to the sequestration that's operating alongside them, so.

**CONCLUSION**
Operator
Thank you. This concludes our question-and-answer session, as well as our conference call. Thank you for attending today's presentation. You may now disconnect.