



GLENN HEGAR TEXAS COMPTROLLER OF PUBLIC ACCOUNTS

P.O. Box 13528 • Austin, TX 78711-3528

June 21, 2021

Scott Muri
Superintendent
Ector County Independent School District
P.O. Box 3912
Odessa, TX 79760

Re: Certificate for Limitation on Appraised Value of Property for School District
Maintenance and Operations taxes by and between Ector County Independent
School District and 1PointFive P1, LLC, Application 1570

Dear Superintendent Muri:

On April 12, 2021, the Comptroller issued written notice that 1PointFive P1, LLC (applicant) submitted a completed application (Application 1570) for a limitation on appraised value under the provisions of Tax Code Chapter 313.¹ This application was originally submitted on February 16, 2021, to the Ector County Independent School District (school district) by the applicant.

This presents the results of the Comptroller's review of the application and determinations required:

- 1) under Section 313.025(h) to determine if the property meets the requirements of Section 313.024 for eligibility for a limitation on appraised value under Chapter 313, Subchapter B; and
- 2) under Section 313.025(d), to issue a certificate for a limitation on appraised value of the property and provide the certificate to the governing body of the school district or provide the governing body a written explanation of the Comptroller's decision not to issue a certificate, using the criteria set out in Section 313.026.

Determination required by 313.025(h)

Sec. 313.024(a)	Applicant is subject to tax imposed by Chapter 171.
Sec. 313.024(b)	Applicant is proposing to use the property for an eligible project.

¹ All Statutory references are to the Texas Tax Code, unless otherwise noted.

Sec. 313.024(d) Applicant has committed to create the required number of new qualifying jobs and pay all jobs created that are not qualifying jobs a wage that exceeds the county average weekly wage for all jobs in the county where the jobs are located.

Sec. 313.024(d-2) Not applicable to Application 1570.

Based on the information provided by the applicant, the Comptroller has determined that the property meets the requirements of Section 313.024 for eligibility for a limitation on appraised value under Chapter 313, Subchapter B.

Certificate decision required by 313.025(d)

Determination required by 313.026(c)(1)

The Comptroller has determined that the project proposed by the applicant is reasonably likely to generate tax revenue in an amount sufficient to offset the school district's maintenance and operations *ad valorem tax* revenue lost as a result of the agreement before the 25th anniversary of the beginning of the limitation period, see Attachment B.

Determination required by 313.026(c)(2)

The Comptroller has determined that the limitation on appraised value is a determining factor in the applicant's decision to invest capital and construct the project in this state, see Attachment C.

Based on these determinations, the Comptroller issues a certificate for a limitation on appraised value. This certificate is contingent on the school district's receipt and acceptance of the Texas Education Agency's determination per 313.025(b-1).


The Comptroller's review of the application assumes the accuracy and completeness of the statements in the application. If the application is approved by the school district, the applicant shall perform according to the provisions of the Texas Economic Development Act Agreement (Form 50-826) executed with the school district. The school district shall comply with and enforce the stipulations, provisions, terms, and conditions of the agreement, applicable Texas Administrative Code and Chapter 313, per TAC 9.1054(i)(3).

This certificate is no longer valid if the application is modified, the information presented in the application changes, or the limitation agreement does not conform to the application. Additionally, this certificate is contingent on the school district approving and executing the agreement by December 31, 2021.

Note that any building or improvement existing as of the application review start date of April 12, 2021, or any tangible personal property placed in service prior to that date may not become "Qualified Property" as defined by 313.021(2) and the Texas Administrative Code.

Should you have any questions, please contact Will Counihan, Director, Data Analysis & Transparency, by email at will.counihan@cpa.texas.gov or by phone toll-free at 1-800-531-5441, ext. 6-0758, or at 512-936-0758.

Sincerely,

DocuSigned by:

11EA6DEF0EC441E...

Lisa Craven
Deputy Comptroller

Enclosure

cc: Will Counihan

Attachment A – Economic Impact Analysis

The following tables summarize the Comptroller’s economic impact analysis of 1PointFive P1, LLC (project) applying to Ector County Independent School District (district), as required by Tax Code, 313.026 and Texas Administrative Code 9.1055(d)(2).

Table 1 is a summary of investment, employment and tax impact of 1PointFive P1, LLC.

Applicant	1PointFive P1, LLC
Tax Code, 313.024 Eligibility Category	Manufacturing
School District	Ector County ISD
2019-2020 Average Daily Attendance	29,754
County	Ector
Proposed Total Investment in District	\$811,000,000
Proposed Qualified Investment	\$634,000,000
Limitation Amount	\$100,000,000
Qualifying Time Period (Full Years)	2022-2023
Number of new qualifying jobs committed to by applicant	25
Number of new non-qualifying jobs estimated by applicant	0
Average weekly wage of qualifying jobs committed to by applicant	\$962
Minimum weekly wage required for each qualifying job by Tax Code, 313.021(5)(B)	\$962
Minimum annual wage committed to by applicant for qualified jobs	\$50,049
Minimum weekly wage required for non-qualifying jobs	\$1,188.75
Minimum annual wage required for non-qualifying jobs	\$61,815
Investment per Qualifying Job	\$32,440,000
Estimated M&O levy without any limit (15 years)	\$96,378,986
Estimated M&O levy with Limitation (15 years)	\$45,914,938
Estimated gross M&O tax benefit (15 years)	\$50,464,048

Table 2 is the estimated statewide economic impact of 1PointFive P1, LLC (modeled).

Year	Employment			Personal Income		
	Direct	Indirect + Induced	Total	Direct	Indirect + Induced	Total
2022	1000	1,174	2,174	\$50,000,000	\$117,000,000	\$167,000,000
2023	1000	1,230	2230	\$50,000,000	\$138,000,000	\$188,000,000
2024	1000	1,241	2241	\$50,000,000	\$153,000,000	\$203,000,000
2025	25	202	227	\$1,251,223	\$45,748,778	\$47,000,000
2026	25	95	120	\$1,251,223	\$30,748,778	\$32,000,000
2027	25	14	39	\$1,251,223	\$19,748,778	\$21,000,000
2028	25	(13)	12	\$1,251,223	\$13,748,778	\$15,000,000
2029	25	(8)	17	\$1,251,223	\$11,748,778	\$13,000,000
2030	25	15	40	\$1,251,223	\$11,748,778	\$13,000,000
2031	25	43	68	\$1,251,223	\$13,748,778	\$15,000,000
2032	25	71	96	\$1,251,223	\$16,748,778	\$18,000,000
2033	25	96	121	\$1,251,223	\$19,748,778	\$21,000,000
2034	25	116	141	\$1,251,223	\$22,748,778	\$24,000,000
2035	25	124	149	\$1,251,223	\$23,748,778	\$25,000,000
2036	25	131	156	\$1,251,223	\$25,748,778	\$27,000,000
2037	25	135	160	\$1,251,223	\$27,748,778	\$29,000,000

Source: CPA REMI, 1PointFive P1, LLC

Table 3 examines the estimated direct impact on ad valorem taxes to the region if all taxes are assessed.

Year	Estimated Taxable Value for I&S	Estimated Taxable Value for M&O		Ector County ISD I&S Tax Levy	Ector County ISD M&O Tax Levy	Ector County ISD M&O and I&S Tax Levies	Ector County Tax Levy	Ector County Hospital Tax Levy	Odessa Junior College Tax Levy	Estimated Total Property Taxes
			Tax Rate*	0.1232	1.0547		0.3650	0.1500	0.1890	
2022	\$236,484,995	\$236,484,995		\$291,397	\$2,494,207	\$2,785,604	\$863,170	\$354,727	\$446,957	\$4,450,458
2023	\$595,351,446	\$595,351,446		\$733,592	\$6,279,172	\$7,012,764	\$2,173,033	\$893,027	\$1,125,214	\$11,204,038
2024	\$741,625,975	\$741,625,975		\$913,832	\$7,821,929	\$8,735,761	\$2,706,935	\$1,112,439	\$1,401,673	\$13,956,808
2025	\$711,960,937	\$711,960,937		\$877,278	\$7,509,052	\$8,386,330	\$2,598,657	\$1,067,941	\$1,345,606	\$13,398,535
2026	\$682,295,898	\$682,295,898		\$840,725	\$7,196,175	\$8,036,900	\$2,490,380	\$1,023,444	\$1,289,539	\$12,840,263
2027	\$652,630,859	\$652,630,859		\$804,172	\$6,883,298	\$7,687,469	\$2,382,103	\$978,946	\$1,233,472	\$12,281,991
2028	\$622,965,821	\$622,965,821		\$767,618	\$6,570,421	\$7,338,039	\$2,273,825	\$934,449	\$1,177,405	\$11,723,718
2029	\$593,300,782	\$593,300,782		\$731,065	\$6,257,543	\$6,988,609	\$2,165,548	\$889,951	\$1,121,338	\$11,165,446
2030	\$563,635,744	\$563,635,744		\$694,512	\$5,944,666	\$6,639,178	\$2,057,270	\$845,454	\$1,065,272	\$10,607,174
2031	\$533,970,705	\$533,970,705		\$657,959	\$5,631,789	\$6,289,748	\$1,948,993	\$800,956	\$1,009,205	\$10,048,901
2032	\$504,305,667	\$504,305,667		\$621,405	\$5,318,912	\$5,940,317	\$1,840,716	\$756,459	\$953,138	\$9,490,629
2033	\$474,640,628	\$474,640,628		\$584,852	\$5,006,035	\$5,590,887	\$1,732,438	\$711,961	\$897,071	\$8,932,357
2034	\$444,975,590	\$444,975,590		\$548,299	\$4,693,158	\$5,241,456	\$1,624,161	\$667,463	\$841,004	\$8,374,085
2035	\$415,310,551	\$415,310,551		\$511,746	\$4,380,280	\$4,892,026	\$1,515,884	\$622,966	\$784,937	\$7,815,812
2036	\$385,645,513	\$385,645,513		\$475,192	\$4,067,403	\$4,542,596	\$1,407,606	\$578,468	\$728,870	\$7,257,540
2037	\$355,980,474	\$355,980,474		\$438,639	\$3,754,526	\$4,193,165	\$1,299,329	\$533,971	\$672,803	\$6,699,268
2038	\$326,315,435	\$326,315,435		\$402,086	\$3,441,649	\$3,843,735	\$1,191,051	\$489,473	\$616,736	\$6,140,995
2039	\$296,650,397	\$296,650,397		\$365,533	\$3,128,772	\$3,494,304	\$1,082,774	\$444,976	\$560,669	\$5,582,723
			Total	\$11,259,902	\$96,378,986	\$107,638,888	\$33,353,873	\$13,707,071	\$17,270,910	\$171,970,742

Source: CPA, 1PointFive P1, LLC

*Tax Rate per \$100 Valuation

Table 4 examines the estimated direct impact on ad valorem taxes to the school district and Ector County, with all property tax incentives sought being granted using estimated market value from the application. The project has applied for a value limitation under Chapter 313, Tax Code.

The difference noted in the last line is the difference between the totals in Table 3 and Table 4.

Year	Estimated Taxable Value for I&S	Estimated Taxable Value for M&O		Ector County ISD I&S Tax Levy	Ector County ISD M&O Tax Levy	Ector County ISD M&O and I&S Tax Levies	Ector County Tax Levy	Ector County Hospital Tax Levy	Odessa Junior College Tax Levy	Estimated Total Property Taxes
			Tax Rate*	0.1232	1.0547		0.3650	0.1500	0.1890	
2022	\$236,484,995	\$236,484,995		\$291,397	\$2,494,207	\$2,785,604	\$863,170	\$354,727	\$446,957	\$4,450,458
2023	\$595,351,446	\$595,351,446		\$733,592	\$6,279,172	\$7,012,764	\$2,173,033	\$893,027	\$1,125,214	\$11,204,038
2024	\$741,625,975	\$741,625,975		\$913,832	\$7,821,929	\$8,735,761	\$2,706,935	\$1,112,439	\$1,401,673	\$13,956,808
2025	\$711,960,937	\$100,000,000		\$877,278	\$1,054,700	\$1,931,978	\$2,598,657	\$1,067,941	\$1,345,606	\$6,944,183
2026	\$682,295,898	\$100,000,000		\$840,725	\$1,054,700	\$1,895,425	\$2,490,380	\$1,023,444	\$1,289,539	\$6,698,788
2027	\$652,630,859	\$100,000,000		\$804,172	\$1,054,700	\$1,858,872	\$2,382,103	\$978,946	\$1,233,472	\$6,453,393
2028	\$622,965,821	\$100,000,000		\$767,618	\$1,054,700	\$1,822,318	\$2,273,825	\$934,449	\$1,177,405	\$6,207,998
2029	\$593,300,782	\$100,000,000		\$731,065	\$1,054,700	\$1,785,765	\$2,165,548	\$889,951	\$1,121,338	\$5,962,603
2030	\$563,635,744	\$100,000,000		\$694,512	\$1,054,700	\$1,749,212	\$2,057,270	\$845,454	\$1,065,272	\$5,717,208
2031	\$533,970,705	\$100,000,000		\$657,959	\$1,054,700	\$1,712,659	\$1,948,993	\$800,956	\$1,009,205	\$5,471,812
2032	\$504,305,667	\$100,000,000		\$621,405	\$1,054,700	\$1,676,105	\$1,840,716	\$756,459	\$953,138	\$5,226,417
2033	\$474,640,628	\$100,000,000		\$584,852	\$1,054,700	\$1,639,552	\$1,732,438	\$711,961	\$897,071	\$4,981,022
2034	\$444,975,590	\$100,000,000		\$548,299	\$1,054,700	\$1,602,999	\$1,624,161	\$667,463	\$841,004	\$4,735,627
2035	\$415,310,551	\$415,310,551		\$511,746	\$4,380,280	\$4,892,026	\$1,515,884	\$622,966	\$784,937	\$7,815,812
2036	\$385,645,513	\$385,645,513		\$475,192	\$4,067,403	\$4,542,596	\$1,407,606	\$578,468	\$728,870	\$7,257,540
2037	\$355,980,474	\$355,980,474		\$438,639	\$3,754,526	\$4,193,165	\$1,299,329	\$533,971	\$672,803	\$6,699,268
2038	\$326,315,435	\$326,315,435		\$402,086	\$3,441,649	\$3,843,735	\$1,191,051	\$489,473	\$616,736	\$6,140,995
2039	\$296,650,397	\$296,650,397		\$365,533	\$3,128,772	\$3,494,304	\$1,082,774	\$444,976	\$560,669	\$5,582,723
			Total	\$11,259,902	\$45,914,938	\$57,174,840	\$33,353,873	\$13,707,071	\$17,270,910	\$121,506,694
			Diff	\$0	\$50,464,048	\$50,464,048	\$0	\$0	\$0	\$50,464,048
Assumes School Value Limitation.										

Source: CPA, 1PointFive P1, LLC

*Tax Rate per \$100 Valuation

Disclaimer: This examination is based on information from the application submitted to the school district and forwarded to the comptroller. It is intended to meet the statutory requirement of Chapter 313 of the Tax Code and is not intended for any other purpose.

Attachment B – Tax Revenue before 25th Anniversary of Limitation Start

This represents the Comptroller’s determination that 1PointFive P1, LLC (project) is reasonably likely to generate, before the 25th anniversary of the beginning of the limitation period, tax revenue in an amount sufficient to offset the school district maintenance and operations ad valorem tax revenue lost as a result of the agreement. This evaluation is based on an analysis of the estimated M&O portion of the school district property tax levy directly related to this project, using estimated taxable values provided in the application.

	Tax Year	Estimated ISD M&O Tax Levy Generated (Annual)	Estimated ISD M&O Tax Levy Generated (Cumulative)	Estimated ISD M&O Tax Levy Loss as Result of Agreement (Annual)	Estimated ISD M&O Tax Levy Loss as Result of Agreement (Cumulative)
Limitation Pre-Years	2022	\$2,494,207	\$2,494,207	\$0	\$0
	2023	\$6,279,172	\$8,773,379	\$0	\$0
	2024	\$7,821,929	\$16,595,308	\$0	\$0
Limitation Period (10 Years)	2025	\$1,054,700	\$17,650,008	\$6,454,352	\$6,454,352
	2026	\$1,054,700	\$18,704,708	\$6,141,475	\$12,595,827
	2027	\$1,054,700	\$19,759,408	\$5,828,598	\$18,424,425
	2028	\$1,054,700	\$20,814,108	\$5,515,721	\$23,940,145
	2029	\$1,054,700	\$21,868,808	\$5,202,843	\$29,142,988
	2030	\$1,054,700	\$22,923,508	\$4,889,966	\$34,032,955
	2031	\$1,054,700	\$23,978,208	\$4,577,089	\$38,610,044
	2032	\$1,054,700	\$25,032,908	\$4,264,212	\$42,874,255
	2033	\$1,054,700	\$26,087,608	\$3,951,335	\$46,825,590
	2034	\$1,054,700	\$27,142,308	\$3,638,458	\$50,464,048
Maintain Viable Presence (5 Years)	2035	\$4,380,280	\$31,522,588	\$0	\$50,464,048
	2036	\$4,067,403	\$35,589,992	\$0	\$50,464,048
	2037	\$3,754,526	\$39,344,518	\$0	\$50,464,048
	2038	\$3,441,649	\$42,786,167	\$0	\$50,464,048
	2039	\$3,128,772	\$45,914,938	\$0	\$50,464,048
Additional Years as Required by 313.026(c)(1) (10 Years)	2040	\$2,815,895	\$48,730,833	\$0	\$50,464,048
	2041	\$2,503,017	\$51,233,850	\$0	\$50,464,048
	2042	\$2,190,140	\$53,423,991	\$0	\$50,464,048
	2043	\$1,877,263	\$55,301,254	\$0	\$50,464,048
	2044	\$1,564,386	\$56,865,640	\$0	\$50,464,048
	2045	\$1,564,386	\$58,430,026	\$0	\$50,464,048
	2046	\$1,564,386	\$59,994,412	\$0	\$50,464,048
	2047	\$1,564,386	\$61,558,797	\$0	\$50,464,048
	2048	\$1,564,386	\$63,123,183	\$0	\$50,464,048
	2049	\$1,564,386	\$64,687,569	\$0	\$50,464,048
		\$64,687,569	is greater than	\$50,464,048	
Analysis Summary					
Is the project reasonably likely to generate tax revenue in an amount sufficient to offset the M&O levy loss as a result of the limitation agreement?					Yes

Source: CPA, 1PointFive P1, LLC

Disclaimer: This examination is based on information from the application submitted to the school district and forwarded to the comptroller. It is intended to meet the statutory requirement of Chapter 313 of the Tax Code and is not intended for any other purpose.

Attachment C – Limitation as a Determining Factor

Tax Code 313.026 states that the Comptroller may not issue a certificate for a limitation on appraised value under this chapter for property described in an application unless the comptroller determines that “the limitation on appraised value is a determining factor in the applicant’s decision to invest capital and construct the project in this state.” This represents the basis for the Comptroller’s determination.

Methodology

Texas Administrative Code 9.1055(d) states the Comptroller shall review any information available to the Comptroller including:

- the application, including the responses to the questions in Section 8 (Limitation as a Determining Factor);
- public documents or statements by the applicant concerning business operations or site location issues or in which the applicant is a subject;
- statements by officials of the applicant, public documents or statements by governmental or industry officials concerning business operations or site location issues;
- existing investment and operations at or near the site or in the state that may impact the proposed project;
- announced real estate transactions, utility records, permit requests, industry publications or other sources that may provide information helpful in making the determination; and
- market information, raw materials or other production inputs, availability, existing facility locations, committed incentives, infrastructure issues, utility issues, location of buyers, nature of market, supply chains, other known sites under consideration.

Determination

The Comptroller **has determined** that the limitation on appraised value is a determining factor in the 1PointFive P1, LLC’s decision to invest capital and construct the project in this state. This is based on information available, including information provided by the applicant. Specifically, the comptroller notes the following:

- Per 1PointFive P1, LLC in Tab 4 of their Application for a Limitation on Appraised Value:
 - A. “Occidental Petroleum (Oxy), a leading producer of traditional energy resources, and its subsidiary Oxy Low Carbon Ventures (OLCV) have recently formed a joint venture with private equity firm Rusheen Capital Management to finance and deploy large-scale Direct Air Capture (DAC) technology licensed from Carbon Engineering, a clean energy company focused on the commercialization of DAC technology, which captures carbon dioxide directly from the atmosphere.”
 - B. “The DAC facility will be built in or near one of several United States energy basins in which Oxy operates, within reasonable proximity to its existing enhanced oil recovery (EOR) operations, accessible pipeline infrastructure, and sufficient electric, natural gas, and water utilities.”
- Per 1PointFive P1, LLC in Tab 5 of their Application for a Limitation on Appraised Value:
 - A. “At this time, Oxy would be the primary recipient of CO2 offtake for sequestration. Because the Section 45Q and negative emissions credits are not specific to geographic location, the Project could be located anywhere in the United States and secure the necessary savings resulting from these programs.”
 - B. “Oxy and Oxy Low Carbon Ventures have a traditional energy production and carbon solutions footprint throughout the United States and the majority of their domestic assets are concentrated in the energy basins of Texas, New Mexico, Colorado, Wyoming, and Utah.”
 - C. “1PointFive is actively evaluating target sites in each of these jurisdictions and plans to site the proposed facility in the location that offers the best support for profitability and sustainability over the lifetime of the Project costs, increasing return on investment, and maintaining the long-term economic viability of the Project. The Project is not economically viable at the proposed site in Texas without a Chapter 313 value limitation.”
 - D. “Property tax is one of the highest annual operating expenses and would be a significant ongoing liability throughout the life of the Project. A Chapter 313 value limitation from Ector County ISD would be critical to reducing up-front operating costs, increasing return on investment, and maintaining the long-term economic viability of the Project. The Project is not economically viable at the proposed site in Texas without a Chapter 313 value limitation.”
- On May 24, 2021 the application provided the below responses to the following questions from the Chapter 313 program staff:
 - A. Comptroller Staff Question #1: “Section 8 Question #4, “Has the applicant made public statements in SEC filing or other documents regarding its intentions regarding its intentions regarding the proposed project location?” Is checked No. However, the attached articles include several statements[...]

- B. Applicant Response #1: "Please see responses to each of the attachments you have shared. In all these articles, the Permian Basin was suggested as the place where Oxy could construct the first of these DAC facilities. The statements made by company representatives are intended to provide information to investors and potential tax equity partners and do not reflect final investment decisions. In no instances has a company representative indicated that Texas has been chosen for the investment of this new technology.
- Article 1: Occidental-backed Company: This article is unsourced as well as provides no direct quotes from any employee within Oxy. Many times people mistakenly refer to Texas as the Permian so our assumption would be that they assumed Permian means Texas. Without the company participating in the unsourced article we have no way to know where this intel was coming from. This article does reference the cost of carbon-removal technologies like DAC is high and they have yet to be deployed on a mass scale, which leads to incentives requests that have been made.
 - Article 2: Insider Q&A: It is well documented that Oxy has ambitious goals to commit to reducing the CO2 emissions and atmospheric carbon levels. CEO Vicki Hollub's statement about the plans to build a direct air capture in the Permian as well as other areas of the world is consistent with previous ambitious plans to develop this technology to address climate change and create value for shareholders.
 - Article 3: Houston Inno: This article was written after our application was filed and made publicly available. Due to the requirements for applications to be made public by the comptroller's office we have no control over what is subsequently written. The quotes in this article reaffirm the statements that the Permian is in consideration for this investment and equally important the quote indicates that securing financing is a necessary step. The financing team is awaiting the tax incentive process to be finalized prior to moving forward with project decisions. Moreover the article also references New Mexico as an attractive opportunity for the project and additional investment.
 - 2020 Annual Report: I do not see any mention to Direct Air Capture investments in Ector County, only the reference to existing EOR operations, however all annual reports contain forward looking statements within the meaning of "safe harbor". See attached document indicating that one should not place undue reliance on expressed or implied forward-looking statements."
- C. Comptroller Staff Question #2: "Tab 5 of the application predominately includes information regarding alternate state "target sites". Please address the apparent conflict regarding proposed alternate locations of the project and the announcements that it will be located in Texas."
- D. Applicant Response #2: "Ector County is the target site for Texas, other target sites have been identified in the competing states of NM, CO and WY (can't disclose proxy sites in other states due to NDAs):
- DACs could be built in any or all of these states, depending on the best possible cost-benefit outcomes or our and Oxy's combined analyses
 - Oxy could build a DAC in the Permian, including New Mexico to demonstrate proof of concept but build the majority of its DACs elsewhere, where costs are lower and EOR operations could receive the CO2 production, and other commercial/industrial off-takers could be part of the equation
 - The LCFS benefits and 45Q credits follow them into any US state
 - As a composite (taxes, workforce, real state, utilities, etc.), the Texas site only works if its property tax liabilities are competitive with other states under consideration and right now, in our cross-state analysis, Texas is the highest liability even when incentives are factored in New Mexico, one of the "Permian Basin" sites has a property tax liability approximately half that of the Texas site; not to mention Texas's nearest competitor can offer an IRB that would abate property tax for 30 years"
- E. Comptroller Staff Question #3: "Please provide more information regarding how the Chapter 313 tax limitation would affect the economic feasibility of the project."
- F. Applicant Response #3: "The economic feasibility is eroded if the 313 and 381 incentives are not included in the cost-benefit analysis and severely jeopardizes the ability for Texas to win the project investment, job creation and ancillary benefits. Overall we ask that the state should rely on the accurate data previously provided in the application and not what a third party reports or prints about the project."

- On November 10, 2020 *Reuters* reported that Occidental announced a net-zero target for greenhouse gas emission. Vicki Hollub, Occidental's Chief Executive stated, "Occidental would finance development of the largest ever facility to pull carbon dioxide out of the atmosphere through a process known as direct air capture. Carbon dioxide from the Permian Basin oil field will be stored underground and used to increase pressure in the oil field and speed up production. The project will lower Occidental's oil recovery cost and allow it to partner with companies that need to lower their carbon footprint."
- The Oxy Occidental 2020 Annual Report included the following information:
 - "Oxy Low Carbon Ventures, LLC, a subsidiary of Occidental, and Rusheen Capital Management, a private equity firm, have formed a development company, 1PointFive, to finance and deploy Carbon Engineering's large-scale Direct Air Capture (DAC) technology. 1PointFive and Carbon Engineering have signed a licensing agreement enabling the commercial development of the world's largest DAC facility, a first step toward their aspiration to deliver this technology on an industrial scale throughout the United States."
 - "The formation of 1PointFive is a significant catalyst that will advance our plans to build the world's largest-scale DAC facility to remove substantial volumes of carbon dioxide emissions from the atmosphere," said Richard Jackson, Oxy Low Carbon Ventures President and Chairman of 1PointFive."
 - "As announced in May 2019, the engineering and design for the first facility to be built through this agreement is already underway. Today, the companies released a 'first look' at the design of the plant which, when operational, will be the largest DAC plant in the world, capturing up to one million metric tons of atmospheric CO₂ annually. Currently, the world's largest individual DAC facilities have the capacity to capture several thousand tons of CO₂ per year."
 - "The facility will have a land footprint of approximately 100 acres. More than 25,000 hours of Carbon Engineering, Oxy Low Carbon Ventures, and contractor time has been completed on the design and development work so far. The final Front-End Engineering Design for the facility is slated to begin in the first quarter of 2021 with construction expected to start in 2022."
- A March 21, 2021 AP News article, "*Insider Q&A: Occidental wants to be Tesla of carbon capture*," Vicki Hollub, CEO of Occidental Petroleum, answered the following questions:
 - "Hollub has invested an undisclosed amount developing a new direct air capture facility that can remove a million metric tons of carbon dioxide from the atmosphere per year; that's compared to thousands of tons per year that most current direct air capture plants remove."
 - "Hollub plans to build many more facilities, selling the carbon and what she calls carbon-neutral or carbon-negative oil."
 - "The barriers right now are those who are so doubtful of the process and the benefits it's going to provide," Hollub said. "Some talk about the cost being too high, but just like solar and wind, the more we build, the more the cost will come down."
- On August 10, 2020 *Reuters* reported the following:
 - "A new venture backed by U.S. oil and gas producer Occidental Petroleum Corp will develop the largest ever facility to pull carbon dioxide out of the atmosphere through a process known as direct air capture, the companies said on Wednesday."
 - "The new company, 1PointFive, will develop a facility located on 100 acres in Texas' Permian Basin. It aims to capture up to 1 million metric tons of carbon dioxide from the atmosphere a year, the companies said in a joint statement."
 - "Construction will begin in 2022, allowing time to improve plant design and reduce costs. The project will seek financing in the market."
 - "The project will benefit from a federal tax credit designed to spur investment in carbon capture and sequestration projects."
- On April 15, 2021 *The Business Journals* Houston Innovation website reported the following:
 - "Occidental subsidiary Oxy Low Carbon Ventures and private equity firm Rusheen Capital make up the joint venture developing the world's first commercial-scale direct air capture project. Richard Jackson, president of operations for U.S. onshore resources and carbon management for Oxy, said much of this year will be devoted to the front-end engineering and design of the 1PointFive facility. The joint venture plans to close financing and begin construction in 2022."
 - "Earlier this year, 1PointFive selected Australian engineering firm Worley to handle the front-end engineering and design work for the plant. Many more partners will be needed to complete development, Jackson said."

- C. "This probably won't be the only time Oxy considers building a DAC plant in the Permian Basin. Being able to put these plants next to existing pipeline and reservoir infrastructure is critical that the CO2 can be permanently sequestered, Jackson said. For that reason, the Permian region in West Texas and New Mexico present attractive opportunities for additional projects."

Supporting Information

- a) Section 8 of the Application for a Limitation on Appraised Value
- b) Attachments provided in Tab 4 of the Application for a Limitation on Appraised Value
- c) Attachments provided in Tab 5 of the Application for a Limitation on Appraised Value
- d) Additional information provided by the Applicant or located by the Comptroller

Disclaimer: This examination is based on information from the application submitted to the school district and forwarded to the comptroller. It is intended to meet the statutory requirement of Chapter 313 of the Tax Code and is not intended for any other purpose.

Supporting Information

**Section 8 of the Application for
a Limitation on Appraised Value**

Texas Comptroller of Public Accounts

Data Analysis and
Transparency
Form 50-296-A

SECTION 8: Limitation as Determining Factor

1. Does the applicant currently own the land on which the proposed project will occur? ☐ Yes ☒ No
2. Has the applicant entered into any agreements, contracts or letters of intent related to the proposed project? ☒ Yes ☐ No
3. Does the applicant have current business activities at the location where the proposed project will occur? ☐ Yes ☒ No
4. Has the applicant made public statements in SEC filings or other documents regarding its intentions regarding the proposed project location? ☐ Yes ☒ No
5. Has the applicant received any local or state permits for activities on the proposed project site? ☐ Yes ☒ No
6. Has the applicant received commitments for state or local incentives for activities at the proposed project site? ☐ Yes ☒ No
7. Is the applicant evaluating other locations not in Texas for the proposed project? ☒ Yes ☐ No
8. Has the applicant provided capital investment or return on investment information for the proposed project in comparison with other alternative investment opportunities? ☐ Yes ☒ No
9. Has the applicant provided information related to the applicant's inputs, transportation and markets for the proposed project? ☐ Yes ☒ No
10. Are you submitting information to assist in the determination as to whether the limitation on appraised value is a determining factor in the applicant's decision to invest capital and construct the project in Texas? ☒ Yes ☐ No

Chapter 313.026(e) states "the applicant may submit information to the Comptroller that would provide a basis for an affirmative determination under Subsection (c)(2)." If you answered "yes" to any of the questions in Section 8, attach supporting information in Tab 5.

SECTION 9: Projected Timeline

NOTE: Only construction beginning after the application review start date (the date the Texas Comptroller of Public Accounts deems the application complete) can be considered qualified property and/or qualified investment.

1. Estimated school board ratification of final agreement September 2021
 2. Estimated commencement of construction Q2 2022
 3. Beginning of qualifying time period (MM/DD/YYYY) 01/01/2022
 4. First year of limitation (YYYY) 2025
- 4a. For the beginning of the limitation period, notate which **one of the following** will apply according to provision of 313.027(a-1)(2):
- ☐ A. January 1 following the application date ☐ B. January 1 following the end of QTP
- ☒ C. January 1 following the commencement of commercial operations
5. Commencement of commercial operations Q4 2024

SECTION 10: The Property

1. County or counties in which the proposed project will be located Ector County
2. Central Appraisal District (CAD) that will be responsible for appraising the property Ector CAD
3. Will this CAD be acting on behalf of another CAD to appraise this property? ☐ Yes ☒ No
4. List all taxing entities that have jurisdiction for the property, the portion of project within each entity and tax rates for each entity:

M&O (ISD): <u>Ector County ISD, 1.0547, 100%</u> <small>(Name, tax rate and percent of project)</small>	I&S (ISD): <u>Ector County ISD, 0.1232, 100%</u> <small>(Name, tax rate and percent of project)</small>
County: <u>Ector County, 0.3650, 100%</u> <small>(Name, tax rate and percent of project)</small>	City: <u>N/A</u> <small>(Name, tax rate and percent of project)</small>
Hospital District: <u>Ector County HD, 0.1500, 100%</u> <small>(Name, tax rate and percent of project)</small>	Water District: <u>N/A</u> <small>(Name, tax rate and percent of project)</small>
Other (describe): <u>Odessa College, 0.1890, 100%</u> <small>(Name, tax rate and percent of project)</small>	Other (describe): <u>N/A</u> <small>(Name, tax rate and percent of project)</small>

Supporting Information

Attachments provided in Tab 4
of the Application for a
Limitation on Appraised Value

Tab 4

Detailed Description of the Project

Occidental Petroleum (Oxy), a leading producer of traditional energy resources, and its subsidiary Oxy Low Carbon Ventures (OLCV) have recently formed a joint venture with private equity firm Rusheen Capital Management to finance and deploy large-scale Direct Air Capture (DAC) technology licensed from Carbon Engineering, a clean energy company focused on the commercialization of DAC technology, which captures carbon dioxide directly from the atmosphere.

The purpose of the joint venture, named 1PointFive, will be to further OLCV's commitment to reducing the amount of carbon dioxide in the atmosphere by advancing and accelerating carbon capture, utilization, and storage (CCUS) technologies and projects around the world. The significance of the name 1PointFive is the joint venture's mission to achieve climate stabilization and limit global warming to 1.5°C (of which DAC technology is a critical component). Oxy and OLCV will be providing significant financial, operational, and engineering resources to 1PointFive.

As the combined corporate entity for OLCV and its partners' proposed investment, 1PointFive is planning the development of a DAC facility that would produce industrial-grade carbon dioxide gas (CO₂) for its own use, as well as the use of other potential off-takers with similar commercial applications. The DAC facility will be built in or near one of several United States energy basins in which Oxy operates, within reasonable proximity to its existing enhanced oil recovery (EOR) operations, accessible pipeline infrastructure, and sufficient electric, natural gas, and water utilities.

The new DAC facility (the Project) would be the first full-scale commercialization of Carbon Engineering's DAC technology anywhere in the world. The Project combines the operational expertise of Oxy and OLCV, and the innovative technology of Carbon Engineering to capture and permanently remove carbon dioxide directly from the atmosphere. The high-quality CO₂ product manufactured by the DAC facility would be used as industrial gas feedstock by Oxy in their traditional energy production process, specifically through downhole injection at their existing EOR sites, to permanently sequester high volumes of carbon dioxide in underground geological storage. Carbon Engineering's proprietary DAC technology is specifically designed to be deployed at a much larger scale than other DAC designs currently operating and demonstrates a significant advantage over less cost-competitive DAC technology developers and facilities.

The proven DAC technology used by the Project would manufacture a continuous stream of high-quality carbon dioxide gas through the process of heating, treating, and compressing atmospheric air using only carbon-free renewable electricity, natural gas, and water as system inputs. Using large fans to draw in ambient air, the system would use two principal chemical loops and industrial processing units to extract and purify the carbon dioxide components of the air input. The DAC system's two chemical loops are a caustic carbon dioxide capture loop and a solids carbon dioxide purification loop, operated by the carbon dioxide capture and caustic recovery equipment. The closed loop design effectively diminishes the need for material removal and make-up, as the products of each reaction become a reagent for another reaction within the DAC process. The major output streams of the DAC system are compressed CO₂ (for utilization) and CO₂-depleted air (discharged into the surrounding atmosphere).

There are four major process components associated with the proposed DAC facility:

- Air Contactor
- Pellet Reactor
- Pellet Calciner
- Slaker/Hydrator

Additional Project components would include, but not be limited to the following:

- Pellet Separator and Washing
- Pellet Dryer
- CO₂ Purifier and Compressor
- Cooling System
- Compressors
- Evaporators
- Pumps
- Electrical and Instrumentation Controls
- Piping
- Water Treatment Facility
- Buildings

The construction of the plant would include site preparation and earthworks, installation of foundations and supports, fabrication of major equipment and transportation to site, integration of modules and interconnecting works (i.e. piping, electrical, controls), erection of buildings and support infrastructure, utility interconnections, commissioning and start-up, production ramp-up, and handover to operations.

There is currently no existing industrial-scale, commercialized deployment of Carbon Engineering's DAC technology deployed anywhere in the world. Once constructed, 1PointFive's Project would become the world's largest DAC facility and carbon capture operation, processing and permanently sequestering approximately 500 kilotons of atmospheric CO₂ per year. The Project would also represent the first significant application for the coupling of DAC technology and EOR operations in the United States. The pairing of DAC technology and CO₂ sequestration through EOR operations would be a significant environmental commitment for the energy industry, providing a pathway for reduced carbon emissions from traditional energy production and the realization of an economically viable model for significant anthropogenic CO₂ sequestration through EOR operations.

The Project and its DAC technology deployment are expected to fundamentally alter the energy landscape by providing a pathway to decarbonize major carbon-emitting industries like fuel production, transportation, and construction. CO₂ credits generated by the plant would be sold into regulated markets like California's Low Carbon Fuel Standards (LCFS) market, as a low-carbon liquid fuel or as emissions offsets directly to corporations committed to decarbonization. Currently, low carbon fuel initiatives are being enacted all over the world, including major markets such as the United States' west coast, Canada, and South America. With countries, industries, and companies continuously looking to offset their CO₂ emissions, it is anticipated that by 2050 the carbon removal industry will be as large as the oil & gas industry is today.

Supporting Information

Attachments provided in Tab 5
of the Application for a
Limitation on Appraised Value

Tab 5

Documentation to Assist in Determining if Limitation is a Determining Factor

The proposed Project would be the largest industrial-scale direct atmospheric air capture and carbon sequestration operation anywhere in the world. Given the wide applicability of Carbon Engineering's process, their DAC technology can be utilized by a variety of industrial and commercial users and could be located anywhere an adequate supply of utility inputs exist. The majority of the manufactured CO₂ from the Project would be permanently sequestered by Oxy's EOR operations but could also be utilized as a feedstock for many other products. The Project becomes more economically viable when there is access to competitively priced renewable electricity, natural gas, and water.

Additional factors that would impact the location and success of the Project include:

- Proximity to a qualified customer for CO₂
- Suitable topography, geotechnical, and logistical conditions
- Labor availability
- Supporting infrastructure
- Initial development costs and recurring tax liabilities
- Permitting and regulatory environment
- Ability to develop or obtain carbon-free electricity to power the facility

The profitability of the Project is dependent on four main factors:

- The ability to negotiate and sell processed CO₂ for permanent sequestration in enhanced oil recovery operations and other potential commercial off-takers
- The ability to utilize Federal Section 45Q tax credits
- The ability to generate and sell negative emissions credits (e.g. California's Low Carbon Fuel Standard)
- The ability to negotiate and secure economic development incentives

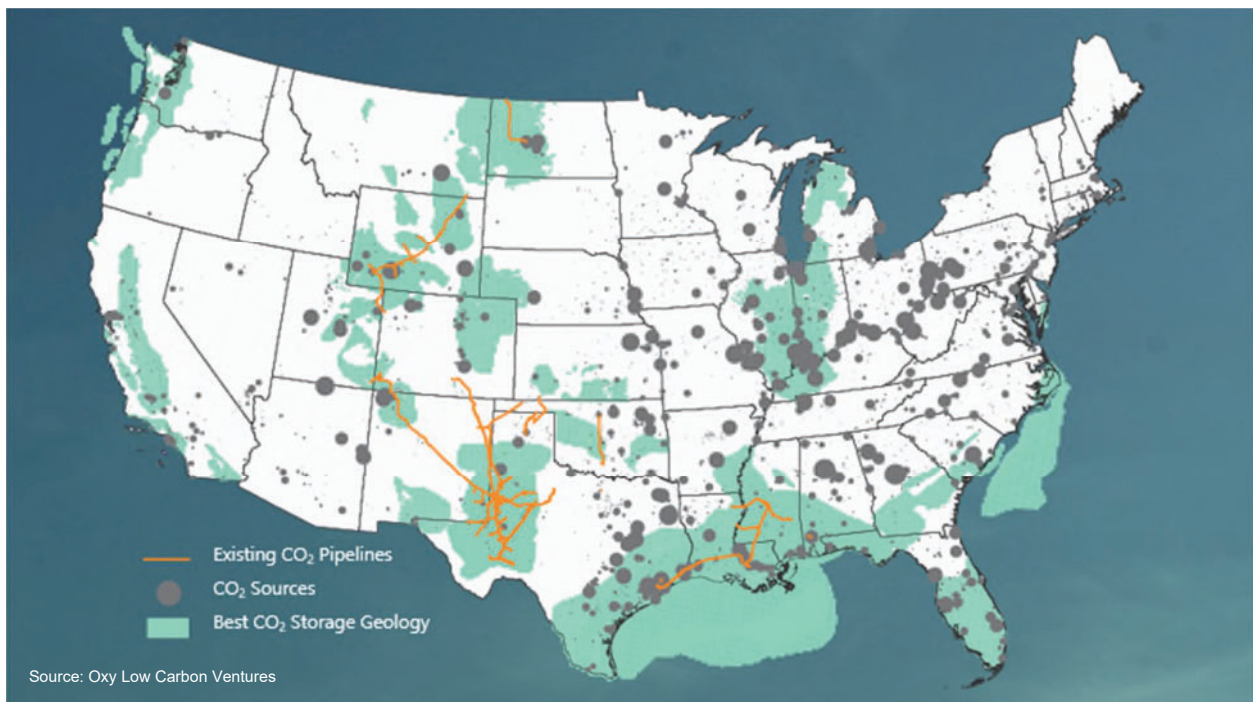
At this time, Oxy would be the primary recipient of CO₂ offtake for sequestration. Because the Section 45Q and negative emissions credits are not specific to geographic location, the Project could be located anywhere in the United States and secure the necessary savings resulting from these programs.

Oxy and Oxy Low Carbon Ventures have a traditional energy production and carbon solutions footprint throughout the United States and the majority of their domestic assets are concentrated in the energy basins of Texas, New Mexico, Colorado, Wyoming, and Utah. 1PointFive is actively evaluating target sites in each of these jurisdictions and plans to site the proposed facility in the location that offers the best support for profitability and sustainability over the lifetime of the Project.

costs, increasing return on investment, and maintaining the long-term economic viability of the Project. The Project is not economically viable at the proposed site in Texas without a Chapter 313 value limitation.

The potential to develop industrial scale, cost effective CCUS operations exists anywhere there is a relatively short distance between carbon dioxide emission sources and saline formations or other types of aquifers that could be utilized for permanent CO₂ sequestration. If the proposed plan to capture, process and sequester CO₂ from atmospheric air proves prohibitively expensive to fully scale in Texas or other states with significant EOR operations, Oxy and its partners could explore other attractive alternatives to investing in DAC/EOR-coupled technologies.

The following map illustrates CO₂ sequestration hub development potential in the United States:



The potential to capture and sequester emissions from these sources is virtually unlimited, as approximately 2,700MM million tons per annum (MTPA) of CO₂ was emitted from U.S. industrial sources in 2018 and less than 15MM MTPA was captured and sequestered (a target of 110MM MTPA is only 4% of total).

Other CO₂ emissions sources such as ethanol plants make a strong case for the construction of carbon sequestration hubs in areas where plants are concentrated, as the cost of sequestration could be spread over a larger production volume. With the right combination of average pipeline distance, estimated capital investment, adequate geology, and minimum ethanol production volumes, OLCV and its partners could choose to dedicate their limited capital resources to the pursuit of other carbon neutralization opportunities with strong estimated returns on investment, including DAC facilities located at sequestration sites near ethanol production.

Supporting Information

Additional information
provided by the Applicant or
located by the Comptroller

COMPTROLLER QUERY RELATED TO TAX CODE CHAPTER 313.026(c)(2)
– Ector County ISD– 1Pointfive P1, LLC App. #1570

Comptroller Questions (via email on May 24, 2021):

1. Section 8 Question #4, “Has the applicant made public statements in SEC filing or other documents regarding its intentions regarding the proposed project location?” Is checked No. However, the attached articles include several statements such as the following:
 - a. “The new company, 1PointFive, will develop a facility located on 100 acres in Texas’ Permian Basin. It aims to capture up to 1 million metric tons of carbon dioxide from the atmosphere a year, the companies said in a joint statement.” (This quote pulled from “*Occidental-backed company will build new U.S.*”)
 - b. “How many of these would you like Occidental to build?... “You can put it anywhere you want to put it. So by combining it with oil reservoirs, that’s the best of all worlds. To be able to provide the world with negative carbon oil, while also being able to meet the needs of the world to use oil. We shouldn’t kill fossil fuels. We’ve got to just figure out how to make fossil fuels emission-less, and that’s what our drive is.” (*“Insider Q&A: Occidental wants to be Tesla of capture”*)
 - c. “We plan to build direct air capture in the Permian, and Wyoming, along with Abu Dhabi and Algeria, and we believe we can help others by building direct air capture for them in their areas of operation. (*“Insider Q&A: Occidental wants to be Tesla of capture”*)
 - d. “The Permian Basin extends throughout West Texas and southeast New Mexico and is one of the largest and most active oil basins in the United States, accounting for more than 36% of total United States oil production in 2020... By exploiting the natural synergies between Permian Resources and Permian EOR, Occidental is able to deliver unique short- and long-term advantages, efficiencies and expertise across its Permian Basin operations...The Permian Basin’s concentration of large conventional reservoirs, favorable CO2 flooding performance and the expansive CO2 transportation and processing infrastructure has resulted in decades of high-value enhanced oil production.” (“Per the **Oxy Occidental 2020 Annual Report**”)
2. Tab 5 of the application predominately includes information regarding alternate state “target sites”. Please address the apparent conflict regarding proposed alternate locations of the project and the announcements that it will be located in Texas.
3. Please provide more information regarding how the Chapter 313 tax limitation would affect the economic feasibility of the project.

Applicant Response (via email on May 24, 2021):

1. The approval of this application is imperative for the success of the development of the proposed DAC plant in Texas, as well as potential subsequent investments. Our answer to section 8 Question #4 shall still remain “No”. The applicant has not made its intentions regarding the proposed project location, the Permian Basin is not Ector County nor is it Texas specific. The reference to the Permian in this context is generally the sedimentary basin located in Southwestern US, including New Mexico. Oxy and our firm is evaluating potential sites in New Mexico and are in the midst of active incentive negotiations. Unfortunately due to NDA restrictions we are unable to share more specifics around these discussions but they are extensive and have caught the full attention of the executive team of our client. Please see the following responses to your email questions below. Please see responses to each of the attachments you have shared. In all these articles, the Permian Basin was suggested as the place where Oxy could construct the first of these DAC facilities. The statements made by company representatives are intended to provide information to investors and potential tax equity partners and do not reflect

final investment decisions. In no instances has a company representative indicated that Texas has been chosen for the investment of this new technology.

- a. **Article 1: Occidental-backed Company:**
This article is unsourced as well as provides no direct quotes from any employee within Oxy. Many times people mistakenly refer to Texas as the Permian so our assumption would be that they assumed Permian means Texas. Without the company participating in the unsourced article we have no way to know where this intel was coming from. This article does reference the cost of carbon-removal technologies like DAC is high and they have yet to be deployed on a mass scale, which leads to incentives requests that have been made.
 - b. **Article 2: Insider Q&A**
It is well documented that Oxy has ambitious goals to commit to reducing the CO2 emissions and atmospheric carbon levels. CEO Vicki Hollub's statement about the plans to build a direct air capture in the Permian as well as other areas of the world is consistent with previous ambitious plans to develop this technology to address climate change and create value for shareholders.
 - c. **C. Article 3: Houston Inno**
This article was written after our application was filed and made publicly available. Due to the requirements for applications to be made public by the comptroller's office we have no control over what is subsequently written. The quotes in this article reaffirm the statements that the Permian is in consideration for this investment and equally important the quote indicates that securing financing is a necessary step. The financing team is awaiting the tax incentive process to be finalized prior to moving forward with project decisions. Moreover the article also references New Mexico as an attractive opportunity for the project and additional investment.
 - d. **D. 2020 Annual Report:**
I do not see any mention to Direct Air Capture investments in Ector County, only the reference to existing EOR operations, however all annual reports contain forward looking statements within the meaning of "safe harbor". See attached document indicating that one should not place undue reliance on expressed or implied forward-looking statements.
2. Ector County is the target site for Texas, other target sites have been identified in the competing states of NM, CO and WY (can't disclose proxy sites in other states due to NDAs)
 - a. DACs could be built in any or all of these states, depending on the best possible cost-benefit outcomes or our and Oxy's combined analyses
 - b. Oxy could build a DAC in the Permian, including New Mexico to demonstrate proof of concept but build the majority of its DACs elsewhere, where costs are lower and EOR operations could receive the CO2 production, and other commercial/industrial off-takers could be part of the equation
 - c. The LCFS benefits and 45Q credits follow them into any US state
 - d. As a composite (taxes, workforce, real state, utilities, etc.), the Texas site only works if its property tax liabilities are competitive with other states under consideration and right now, in our cross-state analysis, Texas is the highest liability even when incentives are factored in
 - e. New Mexico, one of the "Permian Basin" sites has a property tax liability approximately half that of the Texas site; not to mention Texas's nearest competitor can offer an IRB that would abate property tax for 30 years
 3. The economic feasibility is eroded if the 313 and 381 incentives are not included in the cost-benefit analysis and severely jeopardizes the ability for Texas to win the project investment, job creation and ancillary benefits. Overall we ask that the state should rely on the accurate data previously provided in the application and not what a third party reports or prints about the project.



COMMODITIES NEWS NOVEMBER 10, 2020 / 11:00 AM / UPDATED 6 MONTHS AGO

Occidental Petroleum announces net-zero target for greenhouse gas emissions

By Reuters Staff

2 MIN READ



FILE PHOTO: The logo for Occidental Petroleum is displayed on a screen on the floor at the New York Stock Exchange (NYSE) in New York, U.S., April 30, 2019. REUTERS/Brendan McDermid

(Reuters) - Occidental Petroleum Corp [OXY.N](#) on Tuesday laid out a target to reduce greenhouse gas emissions at its operations to net zero by 2040, becoming the latest oil and gas company to set long-term climate goals. U.S. Supreme Court takes up Mississippi case that could limit abortion rights

Oil and gas producers, under pressure from investors who want to see the industry operate more cleanly, have announced new emissions targets this year even as they have slashed spending and production following a coronavirus-driven plunge in crude prices.

Occidental will provide detail on its net-zero target by the end of November when it releases its sustainability report, Chief Executive Vicki Hollub said on an earnings call with analysts.

Hollub touted an August announcement that a unit of Occidental would finance development of the largest ever facility to pull carbon dioxide out of the atmosphere through a process known as direct air capture. Carbon dioxide from the Permian Basin oil field will be stored underground and used to increase pressure in the oil field and speed up production.

The project will lower Occidental's oil recovery costs and allow it to partner with companies that need to lower their own carbon footprint, Hollub said.

Royal Dutch Shell has laid out a strategy to reduce greenhouse gas emissions to net zero by 2050. BP plans to increase its renewable power capacity 20-fold by 2030 while reducing its oil output by 40% and diverting more funds to low-carbon investments.

Occidental's direct air capture project will not require much investment in 2021, Hollub said. The producer will not spend more than \$2.9 billion on new projects next year, an amount that would keep its oil and gas output flat.

It posted a bigger-than-expected quarterly loss on Monday and has cut jobs and production this year, piling pressure on a company that took on significant debt to acquire Anadarko Petroleum for \$38 billion last year.

Shares dipped to \$12.09, down 1.1% in trading on Tuesday.

Reporting by Jennifer Hiller in Houston, Editing by Franklin Paul, Paul Simao and Sonya Hepinstall

Our Standards: [The Thomson Reuters Trust Principles.](#)

Oxy Low Carbon Ventures, Rusheen Capital Management Create Development Company 1PointFive to Deploy Carbon Engineering's Direct Air Capture Technology

HOUSTON, SANTA MONICA, Calif., and SQUAMISH, British Columbia (August 19, 2020) – Oxy Low Carbon Ventures, LLC, a subsidiary of Occidental, and Rusheen Capital Management, a private equity firm, have formed a development company, 1PointFive, to finance and deploy Carbon Engineering's large-scale Direct Air Capture (DAC) technology. 1PointFive and Carbon Engineering have signed a licensing agreement enabling the commercial development of the world's largest DAC facility, a first step toward their aspiration to deliver this technology on an industrial scale throughout the United States.

1PointFive's mission is to reduce the amount of carbon dioxide (CO₂) in the atmosphere using Carbon Engineering's DAC technology. This technology provides a pathway to bolster Paris Agreement-aligned efforts aimed at limiting increases in global temperature to 1.5 degrees Celsius. In 2018, the Intergovernmental Panel on Climate Change (IPCC) issued a [report](#) indicating that in addition to significant emissions reductions, removing atmospheric CO₂ is necessary to attain the 1.5 degrees Celsius goal.

"The formation of 1PointFive is a significant catalyst that will advance our plans to build the world's largest-scale DAC facility to remove substantial volumes of carbon dioxide emissions from the atmosphere," said Richard Jackson, Oxy Low Carbon Ventures President and Chairman of 1PointFive. "Occidental has over 40 years of carbon dioxide management experience, and Oxy Low Carbon Ventures is applying our technical ingenuity and engineering skill to help make large-scale DACs a reality. This is an important step toward realizing our vision for a new, sustainable low-carbon economy, and we are dedicated to working with Rusheen and Carbon Engineering to ensure this critical technology becomes a global emissions reduction solution."

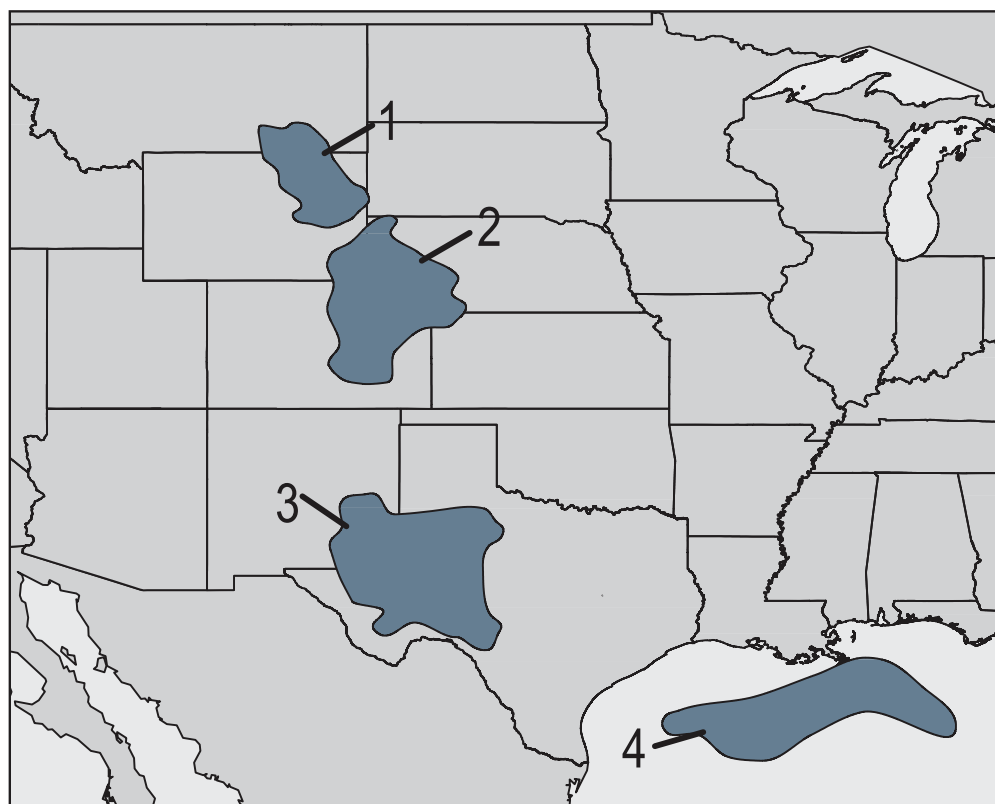
As [announced in May 2019](#), the engineering and design for the first facility to be built through this agreement is already underway. Today, the companies released a 'first look' at the design of the plant which, when operational, will be the largest DAC plant in the world, capturing up to one million metric tons of atmospheric CO₂ annually. Currently, the world's largest individual DAC facilities have the capacity to capture several thousand tons of CO₂ per year.

The facility will have a land footprint of approximately 100 acres. More than 25,000 hours of Carbon Engineering, Oxy Low Carbon Ventures, and contractor time has been completed on the design and development work so far. The final Front-End Engineering Design for the facility is slated to begin in the first quarter of 2021 with construction expected to start in 2022.

The CO₂ captured at the facility will be permanently, safely and securely stored deep underground in geological formations by Occidental. It will be used in lower-carbon oil production, which permanently stores CO₂ as part of the process, and for geologic sequestration to deliver permanent carbon removal, a solution to counteract hard-to-eliminate emissions and help businesses achieve their net zero targets. With DAC, atmospheric CO₂ can also be used as a feedstock to create low-carbon products like plastics and concrete.

Occidental has been permanently storing CO₂ for more than 40 years, with nearly 20 million metric tons sequestered in its operations annually. The company has two U.S. Environmental Protection Agency-approved monitoring, reporting and verification plans to validate the integrity, transparency and permanence of the entire sequestration process. Occidental's contributions to the venture include engineering, project development and other technology performance assistance that will provide support for the development and financing of the DAC plant.

"The Carbon Engineering business model is to license our technology to developers around the world to enable rapid and widespread global deployment of DAC technology," said Steve Oldham, Carbon Engineering's CEO. "This partnership marks Carbon Engineering's first licensing agreement in the U.S. and is a critical next step in the commercialization of DAC technology. It will prove the technology at large, climate-relevant scale, validate the cost, and demonstrate that DAC is now a feasible, available and affordable tool that can be added to the

**DOMESTIC ASSETS** ^(a)

1. Powder River Basin
2. DJ Basin
3. Permian Basin
4. Gulf of Mexico

(a) Map represents geographic outlines of the respective basins.

The Permian Basin

The Permian Basin extends throughout West Texas and southeast New Mexico and is one of the largest and most active oil basins in the United States, accounting for more than 36% of total United States oil production in 2020.

Occidental manages its Permian Basin operations through two business units: Permian Resources, which includes unconventional opportunities, and Permian EOR, which utilizes EOR techniques such as CO₂ floods and waterfloods. Occidental has a leading position in the Permian Basin, producing approximately 13% of total oil in the basin. By exploiting the natural synergies between Permian Resources and Permian EOR, Occidental is able to deliver unique short- and long-term advantages, efficiencies and expertise across its Permian Basin operations.

Permian Resources unconventional oil development projects provide very short-cycle investment payback, averaging less than two years, and generate some of the highest margin and returns of any oil and gas projects in the world. These investments contribute cash flow, while increasing long-term value and sustainability through higher return on capital employed. Occidental's oil and gas operations in Permian Resources include approximately 1.6 million net acres. In 2020, new well design and flowback methods were implemented, which helped lower the overall well cost while improving recovery. Overall in 2020, Permian Resources produced approximately 435 Mboe/d from approximately 6,000 gross wells. Additionally in 2020, Permian Resources added 122 million barrels of oil equivalent (MMboe) to Occidental's proved reserves for improved recovery additions.

The Permian Basin's concentration of large conventional reservoirs, favorable CO₂ flooding performance and the expansive CO₂ transportation and processing infrastructure has resulted in decades of high-value enhanced oil production. With 34 active CO₂ floods and over 40 years of experience, Occidental is the industry leader in Permian Basin CO₂ flooding, which can increase ultimate oil recovery by 10% to 25%. Technology improvements, such as the recent trend toward vertical expansion of the CO₂ flooded interval into residual oil zone targets, continue to yield more recovery from existing projects. Occidental's share of production from Permian EOR was approximately 140 Mboe/d in 2020.

Significant opportunities also remain to gain additional recovery by expanding Occidental's existing CO₂ projects into new portions of reservoirs that have only been water-flooded. Permian EOR has a large inventory of future CO₂ projects, which could be developed over the next 20 years or accelerated, depending on market conditions. In addition, OLCV continues making progress towards supplying anthropogenic, or man-made, CO₂ for the purpose of carbon capture, utilization and storage in Occidental's Permian EOR operations.

In 2020, Occidental spent approximately \$1.1 billion of capital in the Permian Basin, of which over 87% was spent on Permian Resources assets. Also in 2020, Occidental divested of certain non-core, largely non-operated acreage in the Permian Basin. In 2021, Occidental expects to allocate approximately 38% of its worldwide capital budget to the Permian Basin.

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But Hollub's ambitions are bigger. Under her leadership, Hollub has invested an undisclosed amount developing a new direct air capture facility that can remove a million metric tons of carbon dioxide from the atmosphere per year; that's compared to thousands of tons per year that most current direct air capture plants remove.

The facility will suck in air and separate the carbon dioxide using chemicals. The carbon dioxide can then be stored underground or used by industry. Hollub plans to build many more facilities, selling the carbon and what she calls carbon-neutral or carbon-negative oil.

"The barriers right now are those who are so doubtful of the process and the benefits it's going to provide," Hollub said. "Some talk about the cost being too high, but just like solar and wind, the more we build, the more the cost will come down."

Occidental says its operations and its use of power, heat and steam emitted 28.4 million tons of carbon dioxide equivalent in 2019. The company currently stores 20 million tons of carbon dioxide underground annually.

Hollub's ideas are appreciated by OPEC Secretary General Mohammed Barkindo and top executives from British Petroleum and Royal Dutch Shell, but she says "the U.S. CEOs, I don't really get much feedback from them on this, face-to-face."

Q: Why was it important to you to invest in this technology?

A: There is a business case to do it, and whenever you can find a business case that also does good things for the environment, for the communities, for the world, that is certainly a winning scenario. We believe direct air capture does all of that.

It creates value for our shareholders by increasing the recovery of oil that we can get out of our existing reservoirs and lowers the cost and ensures sustainability of that oil production over time.



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AUGUST 19, 2020 / 9:44 AM / UPDATED 9 MONTHS AGO

Occidental-backed company will build new U.S. CO2 removal plant

By Reuters Staff



(Reuters) - A new venture backed by U.S. oil and gas producer Occidental Petroleum Corp will develop the largest ever facility to pull carbon dioxide out of the atmosphere through a process known as direct air capture, the companies said on Wednesday.

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sustainability-focused private equity firm Rusheen Capital Management LLC to license the direct air capture (DAC) technology developed by Canada's Carbon Engineering.

Interest in DAC has grown in recent years, from companies seeking to offset their climate impact to public officials worried about the slow pace of international agreements to cut emissions.

The cost of carbon-removal technologies like DAC however is high, and they have yet to be deployed on a mass scale. Environmentalists have also argued that they reflect a lack of resolve to end the use of fossil fuels.

The new company, 1PointFive, will develop a facility located on 100 acres in Texas' Permian Basin. It aims to capture up to 1 million metric tons of carbon dioxide from the atmosphere a year, the companies said in a joint statement.

Construction will begin in 2022, allowing time to improve plant design and reduce costs. The project will seek financing in the market.

Carbon dioxide captured at the Texas facility will be stored underground and used to increase pressure in the oil field and speed up production.

The project will benefit from a federal tax credit designed to spur investment in carbon capture and sequestration projects.


Carbon Engineering has a pilot plant in British Columbia that has been operating since 2015.

The Minutes to touchdown: the moment a Belarusian dissident knew his time was up
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How a Houston oil giant is pushing the needle on commercial-scale direct air capture



 Vicki Hollub - Occidental

Speaking at the CERAWeek by IHS Markit 2021 conference, Oxy President and CEO Vicki Hollub said she expects the company to be a carbon management company, not only an oil company, in the next 15 to 20 years.

Courtesy Occidental

By [Chris Mathews](#) - Reporter

April 15, 2021, 10:53am CDT

For a transition to a renewable energy infrastructure to occur, we have to develop commercial-scale clean technology. Many energy experts agree that such a transition will require the assistance of the oil and gas sector, and when it comes to funding clean energy development, one Houston-based oil giant is putting its money where its mouth is.

A joint venture subsidiary under Houston-based Occidental Petroleum Corp. (NYSE: OXY) is developing what will be the largest direct air capture facility in the world once completed. The joint venture, called 1PointFive Inc., plans to construct a direct air capture facility capable of extracting up to 1 million metric tons of atmospheric carbon dioxide annually.

The plant will capture CO₂ and process it into an industrial gas for use by Oxy and other upstream oil and gas firms in enhanced oil recovery. The product is sequestered in the geological formations underground to keep it out of the atmosphere.

Occidental subsidiary Oxy Low Carbon Ventures and private equity firm Rushdeen Capital make up the joint venture developing the world's first commercial-scale direct air capture project. [Richard Jackson](#), president of operations for U.S. onshore resources and carbon management for Oxy, said much of this year will be devoted to the front-end engineering and design of the 1PointFive facility. The joint venture plans to close financing and begin construction in 2022.

"There are different technologies which fit different sizes and scale, but I think this will be significantly larger than any that have been put together so far," Jackson said.

1PointFive plans to build the massive direct air capture (DAC) plant in the heart of Texas oil and gas country — the Permian Basin. [Tax incentive applications filed](#) with the state show that 1PointFive is considering building the DAC plant in Ector County, which contains Odessa, Texas.

The development of the DAC project is expected to require 1,000 workers at its peak, according to tax incentive applications. Jackson said the workforce needed to develop such critical infrastructure is significant. Earlier this year, 1PointFive selected Australian engineering firm Worley to handle the front-end engineering and design work for the plant. Many more partners will be needed to complete development, Jackson said.

"While it's on us as a company like Oxy to prove and de-risk the business model, we think once we do that, there will be many beneficiaries — from the climate to the labor to the value chain and the workers that it can create," Jackson said.

One necessary step before construction can go forward is securing financing. The development of such a large DAC plant will cost hundreds of millions of dollars — possibly billions of dollars as you look out over decades, Jackson said. The joint venture will need capital to help support the build out. Chicago-based United Airlines (Nasdaq: UAL) announced late last year that it would make a multimillion-dollar investment in 1PointFive.

This probably won't be the only time Oxy considers building a DAC plant in the Permian Basin. Being able to put these plants next to existing pipeline and reservoir infrastructure is critical that the CO₂ can be permanently sequestered, Jackson said. For that reason, the Permian region in West Texas and New Mexico present attractive opportunities for additional projects.

"The opportunity is obviously to build more in the Permian for scale for our current CO₂ injection and storage," Jackson said. "We store about 18 million tons per year, so this would be 1/18th of our total injection and storage."

Oxy is involved with several other innovative projects tackling the problem of carbon emissions. Oxy Low Carbon Ventures is capturing emissions from two White Energy ethanol plants in the Texas Panhandle for injection and sequestration in order to make carbon-neutral oil. In March, Oxy and Houston-based liquefied natural gas company NextDecade agreed to [build a carbon pipeline and storage facility](#) near NextDecade's proposed LNG terminal in Brownsville, Texas. Oxy would transport the CO₂ captured at the NextDecade terminal for sequestration.

Earlier in April, Oxy Low Carbon Ventures and Houston-based bioengineering startup Cemvita Factory announced plans to construct a bio-ethylene pilot plant that would apply human-made CO₂ instead of hydrocarbon-sourced feedstocks. The pilot project will serve as a starting point to scale the technology, jointly developed by Cemvita and Oxy Low Carbon Ventures, which showed to be competitive with hydrocarbon-sourced ethylene processes in lab tests.

Speaking at the [CERAWEEK by IHS Markit 2021 conference](#), Oxy President and CEO [Vicki Hollub](#) said she expects the company to be a carbon management company, not just an oil company, in the next 15 to 20 years.

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