

GOOD TIMES ARE HERE AGAIN... BUT HOW LONG WILL THEY LAST?

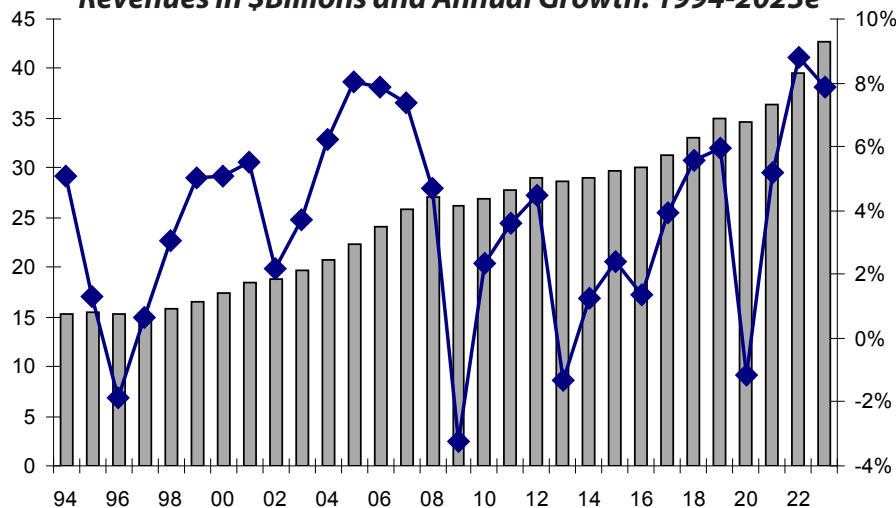
As the environmental industry looks back on near record growth in revenues and backlog in the Consulting & Engineering segment in 2022, and demand for projects and long-term commitments on work orders continues through 2023, seasoned executives hardly have enough time to pause to consider how long the good times will last.

Keeping pace with the workflow by keeping their workforce happy, motivated and well compensated is frequently cited as the biggest challenge in the business in 2023. Indeed Recruitment & Retention appears at or near the top of the list of a number of surveys assessing concerns of environmental industry executives. Retaining an employee-centric and client-centric culture is often not enough as firms increasingly work to enhance the workplace environment and overall vibe of their team culture to reflect more than the overall purpose of the sector that team members have already willingly joined, but that in some way separates their own company from their peers and other employment opportunities open to middle tier managers so crucial to the future of their firms.

But this review of the Consulting & Engineering sector is not to dive in to the strategy and tactical execution of recruitment and retention, but more focuses on the perhaps somewhat underemphasized long-term strategic issues affecting short-term and long-term demand across the environmental services segments.

An historical perspective on annual growth in categories across the environmental industry in comparison to client sectors or other pertinent economic factors is useful in putting the sustainability of to-

U.S. Environmental Consulting & Engineering Industry Size in Revenues in \$Billions and Annual Growth: 1994-2023e



Source: Environmental Business Journal's annual models of the U.S. environmental consulting & engineering industry based on revenue information on 600-700 firms each year.

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Environmental Industry: Key Growth Factors in Industry Cycles from 2004-2024

	2004-2008	2009-2010	2011-2013	2014-2016	2017	2018	2019	2020	2021	2022	2023e	2024-2025
Economic Growth (GDP)	+	--	+	+n	+	+	+	--	++	+	n+	n+
Property Values	++	-	-	+	+	+	n+	-	+	+	n	n+
Federal Government Spending	+	+	-	n	-	n-	n-	++	+	++	++	+
Oil & Gas, Commodity Prices	++	--	+	--	+	n+	-	--	++	++	-	n--
Construction Activity	+	--	+	++	+	+	+	-	n+	n-	-	n
State & Local/Inf. Spending	+	-	-	n	n	n	n	-	n+	++	++	++
Federal Env'l Policy & Regulations	-	n	n+	n+	--	--	-	-	n+	n+	+	+
State & Local Env'l Policy & Regs	n	n	n+	n+	n	n+	+	n	n+	+reg-	+reg-	+reg-
Energy Transition	n	n	n	n	n	+	+	+	++	++	++	++
Env'l Industry Growth	5.9%	1.1%	2.8%	2.6%	4.5%	3.4%	2.9%	2.2%	6.8%	5.6%	6.2%	3-5%
C&E Growth	6.8%	-0.8%	2.2%	1.7%	3.9%	5.6%	5.9%	-1.1%	5.2%	8.8%	7.9%	4-6%
Env'l Contracting Growth	3.0%	-0.4%	3.2%	0.2%	1.6%	1.4%	1.8%	-4.8%	5.5%	3.4%	2.7%	2-4%
Environmental Infrastructure	5.8%	3.4%	2.2%	3.1%	4.3%	4.3%	3.1%	3.5%	4.7%	4.0%	4.8%	4-6%
US GDP Growth	2.2%	0.0%	1.9%	2.1%	2.3%	2.9%	2.2%	-3.5%	5.9%	2.1%	1.8%	1-2%
US Inflation Rate	3.2%	0.6%	2.3%	1.0%	2.1%	2.4%	1.8%	1.2%	4.7%	8.0%	3-4%	1-2%
Oil Price Growth	27.9%	-3.6%	12.5%	-24.1%	23.8%	31.5%	-9.6%	-35.2%	70.0%	42.4%	-20%	-5-15%
Construction Activity	6.8%	-13.2%	4.1%	9.4%	4.1%	8.0%	4.3%	7.8%	8.5%	10.6%	-2-5%	2-5%

Source: EBJ, Environmental Industry Summit presentation by Grant Ferrier and EBJ Annual Environmental Industry Overview editions

day's growth curve into perspective, as well as crafting the most likely growth forecast scenarios out to 2026 and beyond. Accompanying this review is a table comparing major growth factors influential in determining growth of the Consulting & Engineering and Contracting segments in particular. And accompanying the Q4 2023 forecast is a more granular examination of the C&E sector based on a complete aggregation of 2022 calendar year revenue performance of more than 660 firms.

Growth trends by client category, service segment, media type and geographic region each have the potential to shine significant light on a key contributing factor to the strategic growth potential of firms in the industry. The competitive gameboard of marketshare across these and combinations of these categories also impact the total addressable market — and help prioritize investment and business development for either existing or new service and technology categories. So while the presentation of such a mass of business data and industry statistics may at times seem like overkill, the breadth and diversity of environmental industry competitors and their investors and partners commands such a broad perspective.

SUSCEPTIBILITY TO CHANGE

Given that key factors inevitably govern major trends that drive industry growth or relative decline, we rank them in terms of uncertainty over the next couple years. Politics and the outcome of elections are inevitable realities that arguably have significant or somewhat minimal impact on ongoing demands for environmental services and technology. In the world of Environmental Business International Inc, publisher of Environmental Business

Journal, these subjects are more forcefully presented and debated in person at Environmental Industry Summit series events, rather than in print or in PDF in EBJ.

Possible scenarios for the candidates and outcome of the 2024 election have already been floated at events and on EBI monthly webcasts, but suffice it to say that the bipartisan divide across the political spectrum has likely made the results of each successive election perhaps more influential on the drivers that impact envi-

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PRIVATE EQUITY STAKEHOLDER PROJECT HOLDS PRIVATE EQUITY FIRMS TO ACCOUNT

ESG watchdog finds transparency lagging and commitments to fossil fuels alarming.

Private Equity Stakeholder Project (PESP, Chicago, Ill.) is a nonprofit organization that aims to bring transparency and accountability to the private equity industry and empower impacted communities. The PESP recently launched a database containing information on nearly 200 private equity owned companies with 10,000 or more employees. PESP also publishes the Private Equity Hospital Tracker identifying private equity hospital ownership in the United States. In September 2022 PESP published the Private Equity Climate Risks 2022 Scorecard & Report. PESP is supported by nonprofit organizations such as foundations and labor unions. PESP does not accept funding from corporations.

Nichole Heil is a research and campaign coordinator at PESP where she focuses on private equity's role in the buildout of new fossil fuel infrastructure. Prior to PESP, she worked as a policy analyst on local and state policies to advance green infrastructure throughout Los Angeles, as well as a civil engineer focusing on low-impact development. She holds a Master of Urban and Regional Planning degree from UCLA and a Bachelor's degree in Biological Systems Engineering from Pennsylvania State University.

EBJ: Private equity has gained in influence across the global economy compared to government, publicly traded companies and other institutions. Do you see this influence expanding, and is that why PESP's efforts are focused on ensuring that their actions are aligned with their statements and strategies?

Nichole Heil: Private markets have grown by 20% annually since 2017, reaching at least \$12 trillion. A 2021 PESP analysis found that private equity firms have invested around \$1.1 trillion in energy assets since 2010. Increasingly, private equity firms have popped up as regular buyers of assets dumped by other financial players like banks, big oil companies and utilities seeking to cut their emissions footprint. Lack of transparency and clarity around PE energy holdings creates risk for the public and investors. Private equity has only minimal financial regulatory oversight, so firms have been able to write their own narratives about the size of their energy holdings and climate impacts.

Additionally, a lot of the capital used for PE investment comes from pension funds for public employees. That means public workers' retirement funds bear the risks of fossil fuels investments. Therefore, it's important to shine a light on private

equity's energy investments as they have impacts on the planet, workers, and frontline communities.

EBJ: Major financial investments in expanding the fossil fuel infrastructure are indeed concerning. However, some would say that extracting and processing natural gas and oil is conducted more responsibly here in North America than elsewhere around the world, so there is some validity to continuing to invest in LNG in particular in the United States. What's your view?

Heil: Investing in new LNG export infrastructure is not necessary to meet demand and capacity for LNG imports globally. According to the **International Energy Agency (IEA)**, gas demand is not expected to grow in the long term, especially in mature economies. In addition, IEA's 2021 *Net Zero by 2050* report found no new fossil fuel investments are needed to reach their net zero by 2050 pathway. The buildout of LNG is not only unwarranted but heavily concentrated in the Gulf south, creating sacrifice zones with unmeasured impacts on public health and environmental harms. Private equity firms, like KKR can boast responsible development, but there's nothing responsible about any country polluting frontline communities

for private gain. We have followed multiple case studies here in the United States of private equity owned LNG terminals causing harmful effects to the environment and the health of local communities.

Our case studies found a pattern of repeated environmental violations, failure to obtain community consent, and a lack of accountable business practices. Several of these projects have faced significant cost overruns and project delays. Private equity's development of new fossil fuel projects, and the continuation of declining oil and gas assets, should be a concern to all who worry about escalating climate risks.

EBJ: Has the conflict between Russia and Ukraine given some cover to extend investment horizons for fossil fuels for another 5 or 10 years?

Heil: The rapid development of U.S. natural gas export terminals has less to do with meeting global gas demand but rather private equity seeing opportunities to quickly cash in on record gas prices at the expense of frontline communities. Within six months of President Biden's 2022 announcement to extend LNG supplies to Europe, the gas industry exceeded the export target with existing LNG export terminals. This reporting aligns with the IEEFA findings that the U.S. LNG industry has the ability to assist Europe without the need to construct new gas infrastructure. Additionally, IEEFA found there may be more European supply than demand by 2030. This stranded asset risk of LNG infrastructure looms as the EU weighs its long-term carbon reduction goals with short-term energy needs and gas price fluctuations. The EU is planning to reduce its emissions by 55% by 2030 (compared to 1990 levels), and certain countries are halting expansion of LNG import infrastructure due to high prices.

EBJ: KKR certainly has a major portfolio in climate-exposed assets, but they also are the owner of ERM, one of the world's largest environmental consulting engineering firms with over \$1 billion in revenues, in addition to RES, one of the world's largest wetlands mitigation and ecosystem restoration companies. Does your private equity scorecard give some credit to such

acquisitions or to investments in renewable energy and other climate change segments?

Heil: There has been a notable uptick in renewables and environmental services investments across the industry, but that doesn't negate private equity's continued investment in fossil fuels that contribute to climate change and pollute frontline communities. ESG is not well defined, and the private equity firms analyzed by the scorecard shows each has varying levels of transparency, commitment and investment philosophies in their ESG policies.

The scorecard looks at the underlying investments in their portfolio to compare apples to apples. For KKR specifically, 78% of the firm's energy portfolio companies invest in fossil fuels, with at least \$9 billion in gas and LNG transportation and storage. Because of its large fossil fuel portfolio, KKR received a D grade in the 2022 PE Climate Risks Scorecard compared to a firm like TPG which received a B grade.

EBJ: But no specific points for KKR's investments in ERM and RES?

Heil: The scorecard focused on energy assets (e.g. oil exploration & production assets, pipelines, renewable assets) rather than service companies. This same rule was applied equally to all of the firms that the scorecard covered so we could compare apples to apples and provide appropriate scoring. It is striking, though, that despite owning a company like ERM, KKR has continued to make new investments in fossil fuel assets such as its recent investment in the Port Arthur LNG terminal.

EBJ: How do you view the evolution of the ESG movement in the investor community, and have the rating entities taken rating investors on effectively? Are private equity firms and their portfolio companies, as well as publicly traded companies and government and non-government institutions, embracing ESG as a centering principle?

Heil: Private equity is lagging in transparency. Without comprehensive disclosure of assets and all supply chain emissions, the full environmental and climate impacts of PE investments in energy are

unknown. Institutional investors are increasingly concerned about climate risk in their portfolios, and many are adopting strategies to reduce fossil fuel exposure. But it's harder to apply those policies in private markets.

The Climate Risks Scorecard recommends PE firms commit to align investments with 1.5 degrees, commit to emissions disclosures *and* reductions, and a portfolio transition plan. A few firms have taken steps, e.g., pledging to avoid oil and gas drilling, but for the most part they rely on self-selected ESG anecdotes that leave out their dirtiest investments. For example, both **The Carlyle Group** and **Brookfield Asset Management** have left out their most fossil-fuel laden portfolio companies from their recent self-published ESG reports. Industry initiatives (such as the ESG Data Convergence Initiative) have lacked ambition, focused more on data collection than actual emissions reductions.

Private markets have a role to play in the energy transition. PE firms have shown a growing interest in renewable energy, but their clean energy investments are still dwarfed by fossil fuels. The industry should retire its fossil fuel investments in alignment with a just energy transition, including taking advantage of government incentives such as IRA and DOE programs. At the same time, private equity should invest to scale up clean energy power generation and storage.

EBJ: What do you think of the term greenwashing? Is it common practice?

Heil: Because there is such opacity and lack of disclosure within private equity owned oil and gas companies, the public must only rely on statements, data, and disclosures that PE firms generate and decide to release on their own. Firms have been able to write their own narratives about their climate impacts. As I mentioned in the previous question, firms have made claims and reported emissions in their ESG documents that deliberately do not take into account the totality of their actual fossil fuel energy portfolios.

Additionally, as we showed in our recent case study on KKR, the firm's portfolio

companies have committed numerous environmental violations and engaged in unethical business practices while contributing to the climate crisis, even as KKR put money into fossil fuel projects that run decidedly counter to its preferred public image of a good steward of the Earth.

The result is a confusing mix of greenwashing and opacity that leaves the public and investors in the dark about what any of it really means. It's hard to verify investors' statements, and in many cases their statements have been wrong or ESG commitments not adhered to.

EBJ: What role do insurance companies play in managing long-term risks associated with climate change and adaptation and resilience?

Heil: We don't focus specifically on the role insurance companies play in risk abatement, but some of our organizational partners such as **Insure Our Future** or **As We Sow** are working on insurance campaigns more closely.

In general, insurance companies are still insuring fossil fuel assets, even though some companies are being negatively impacted by climate change so much so that they have to pull out of states that are greatly impacted by climate disasters such as California or Florida.

EBJ: What inspired you to get into this field in the first place?

Heil: In my career I have contributed to the movement to lessen the impacts on climate change from different angles—first as a civil engineer with a focus on low impact development, and then as a policy analyst working to influence local, state and federal climate change policies and programs.

I always felt there was something missing to make an impact, an understanding of the root cause of the players maintaining the status quo. I was inspired to learn about the powerful forces at play that keep fossil fuel energy markets surviving amidst public outcry and diminishing economic outlooks.

Private equity's ownership of billions in energy assets and immense political power

were obvious and worthwhile areas of focus for me as a researcher and climate advocate.

PESP has been a watchdog for private equity's impacts on workers, housing, and healthcare, and we work to bring transparency and accountability to the private equity industry and empower impacted communities. We started research on private equity's role in fossil fuels as a way to help expose its role in polluting communities and contributing to a warming planet.

EBJ: What is the most compelling evidence of climate change that you have witnessed during your lifetime?

Heil: We have all heard the growing number of stories of individual communities experiencing intensifying natural disasters as a result of climate change. From growing destruction and deadliness of hurricanes and wildfires to prolonged impacts of droughts and floods, frontline communities are feeling the brunt of exploitive fossil fuel development. The most compelling evidence of climate change to me is the mobilization of people around this issue. The number of people who are standing up and demanding change because of the impacts they are feeling in their communities grows every year. To me, this collective experience that we feel in different ways is the most impactful evidence we have of global climate change. ▣

“KKR’s messaging on the climate risks of their investments is not consistent with their actual investment actions... Even with KKR’s renewable energy initiatives, 78% of the company’s energy portfolio remains centered on fossil fuels.”

KKR Completes Port Arthur Lng Acquisition As New Report Outlines Harm To Frontline Communities

In September 2023, the Private Equity Climate Risks data project published a report entitled “Uncovering KKR’s Environmental Responsibility Gap” examining how KKR and its affiliates have managed three LNG investments. Publication came at around the same time that private equity firm KKR announced the completion of its 42% stake in Port Arthur LNG Phase 1 via Sempra Infrastructure. KKR’s other two LNG investments are the Coastal GasLink pipeline in Canada and Cameron LNG in Louisiana.

According to a news release by the **Private Equity Stakeholder Project** (PESP), one of the publishers of the report, despite citations for environmental protection violations for two of the projects, KKR companies have expanded the projects over the opposition of local communities: “KKR holds one of the largest fossil fuel energy portfolios among private equity firms. In recent years, KKR has invested at least \$9 billion in a minimum of 14 projects related to the transportation and storage of gas and LNG, such as pipelines and storage terminals.”

The proposed Port Arthur LNG project, would increase the planned output of all U.S. natural gas exports by approximately 15%, potentially emitting around 7.7 million tons of CO2 equivalent per year, similar to the annual greenhouse gas emissions from 17 natural gas-fired power plants, according to PESP,

“KKR’s messaging on the climate risks of their investments is not consistent with their actual investment actions,” said Nichole Heil, Research and Campaign Coordinator at the PESP. “Even with KKR’s showcased renewable energy initiatives, 78% of the company’s energy portfolio remains centered on fossil fuels.”

KKR’s energy portfolio of environmentally harmful assets earned it a ‘D’ grade in the 2022 Private Equity Climate Risks Scorecard. “Thus far, KKR has failed to demonstrate meaningful progress on transitioning towards a clean energy portfolio and continues to engage in the extraction of resources and wealth from marginalized communities,” PESP said.

The scorecard and KKR report are both products of the Private Equity Climate Risks data project, a collaborative effort investigating private equity’s impact on the climate crisis by **Americans for Financial Reform Education Fund**, **Global Energy Monitor**, and the Private Equity Stakeholder Project.

Top 10 Private Equity Firms

1. The Blackstone Group Inc.
3. KKR & Co. Inc.
3. CVC Capital Partners
4. The Carlyle Group Inc.
5. Thoma Bravo
6. EQT
7. Vista Equity Partners
8. TPG Capital
9. Warburg Pincus LLC
10. Neuberger Berman Group LLC

This stranded asset risk of LNG infrastructure looms as the EU weighs its long-term carbon reduction goals with short-term energy needs and gas price fluctuations.
