# PRIVATE EQUITY CLIMATE RISKS

# **SCORECARD 2022**

0

0

0

PRIVATE EQUITY CLIMATE RISKS

**SEPTEMBER 2022** 

# **AUTHORS**

September 2022

This report was researched, written, and edited jointly by researchers at Private Equity Stakeholder Project and Americans for Financial Reform Education Fund.

#### About Americans for Financial Reform Education Fund

Americans for Financial Reform Education Fund is a nonprofit, nonpartisan coalition of more than 200 civil rights, community-based, consumer, labor, small business, investor, faith-based, civic groups, and individual experts. It was founded in the wake of the 2008 financial crisis and its mission is to fight to create a financial system that deconstructs inequality and systemic racism and promotes a just and sustainable economy.

#### About the Private Equity Stakeholder Project

The Private Equity Stakeholder Project is a nonprofit organization with a mission to identify, engage, and connect stakeholders affected by private equity with the goal of engaging investors and empowering communities, working families, and others impacted by private equity investments.





### **ENDORSEMENTS**

The following organizations endorse the Private Equity Climate Scorecard and Climate Demands for Private Equity.



2

# TABLE OF CONTENTS

EXECUTIVE SUMMARY	4
PRIVATE EQUITY CLIMATE SCORECARD	6
INTRODUCTION Private Equity Propels The Climate Crisis Climate And Financial Risks	7
ASSESSING PRIVATE EQUITY'S CLIMATE IMPACT ASSESSING PRIVATE EQUITY'S CLIMATE IMPACT PRIVATE EQUITY'S ENERGY FOOTPRINT PRIVATE EQUITY CLIMATE SCORECARD INDICATORS F for Failing: Carlyle Leads The Pack Of Private Equity Polluters The D Bracket: A Deep Bench Of Private Equity Polluters Warburg Pincus KKR Brookfield Asset Management and Oaktree Capital Ares Management Apollo Global Management The Blackstone Group Earning a B Grade: Portfolio Movement Away from Fossil Fuels TPG Capital	9
<b>CLIMATE DEMANDS FOR PRIVATE EQUITY</b> Holding Private Equity Accountable Climate Demands For Private Equity	15
CONCLUSION	16
Appendices	17
APPENDIX A: ADDITIONAL BACKGROUND ON PRIVATE EQUITY CLIMATE DEMANDS	17
APPENDIX B: PRIVATE EQUITY CLIMATE SCORECARD - DETAILS AND SOURCING	21
APPENDIX C: SCORECARD METHODOLOGY Indicators Normalization Aggregation and Weights	27
Carlyle/NGP Example	
APPENDIX D: CLIMATE DEMANDS FOR PRIVATE EQUITY SCORING RUBRIC	32

# **EXECUTIVE SUMMARY**

Private markets hold billions in energy investments with minimal public visibility, but with the accelerating climate crisis causing \$152.6 billion in disaster damage in 2021 in the U.S. alone,<sup>1</sup> the need for transparency and a rapid transition to a clean energy economy has never been more urgent.

The growth in private markets is transforming finance, but large players like private equity are hardly regulated and exempt from most financial disclosures "leaving regulators with more blind spots concerning the risks buyout firms might pose."<sup>2</sup> Private equity firms have invested over \$1 trillion in energy since 2010, and thus have taken on a significant role in propelling the climate crisis.<sup>3</sup>

Institutional investors that provide private equity firms with capital for investment face significant climate risks through exposure to private equity's existing portfolio of polluting assets, as well as financial and transition risks as society seeks to decrease greenhouse gas emissions and move to a clean energy economy.

Ten of the largest private equity buyout firms had at least 80 percent of their energy portfolios in fossil fuels, as of October 2021.<sup>4</sup> As public markets attempt to shed assets, private equity asset managers have repeatedly acquired them and



Δ

operated these fossil fuel assets out of the public eye and beyond the oversight of financial regulators.<sup>5</sup> The billions of dollars private equity firms have deployed to drill, frack, transport, store, refine fossil fuels, and generate energy, stand in stark contrast to what climate scientists and international policymakers have called upon to align our trajectory to the 1.5 degrees Celsius warming scenario.<sup>6</sup>

This report reveals the top eight private equity buyout firms invested in oil and gas and includes a set of demands to hold private equity accountable for the risks in their fossil fuel portfolios, the harmful impacts they have on the environment and frontline communities, and the need to execute a just energy transition.<sup>7</sup>

The scorecard assesses and ranks the fossil fuel portfolios and progress toward an energy transition of eight of the largest private equity firms.<sup>8</sup> These eight firms oversee a combined \$3.6 trillion in assets under management.<sup>9</sup> The Carlyle Group ranked last among its peers, earning an F. In 2020, Carlyle-owned power plants emitted millions of tons of carbon dioxide, and the firm continues to demonstrate inadequate progress toward transitioning away from fossil fuels and reducing climate risks. Other bad actors include Warburg Pincus, KKR, Brookfield, Ares, Apollo, and Blackstone Group which all earned Ds. Private equity firm TPG earned a B, having a comparatively smaller portfolio of fossil fuels and having made some progress relative to its peers toward clean energy transition.

In order for these firms, and the private equity industry broadly, to demonstrate commitment to a just energy transition, this report outlines a set of five primary demands:

- 1. Align with Science-Based Climate Targets To Limit Global Warming To 1.5°C
- 2. Disclose Fossil Fuel Exposure, Emissions and Impacts
- 3. Report Portfolio-Wide Energy Transition Plan
- 4. Integrate Climate And Environmental Justice
- 5. Provide Transparency On Political Spending And Climate Lobbying

Society cannot afford to let private markets continue to pollute under the shroud of darkness. The institutional investors whose retirement capital is at risk, the communities harmed by fossil fuel extraction and impacted by climate change, and the public deserve transparency and a rapid transition away from dirty energy from the private equity industry. The policymakers and regulators who govern financial markets, as well as private equity's investors, must require comprehensive disclosures and transition plans.

CC	orecard er 14, 2022	Carlyle / Warbur NGP Pincus	<sup>rg</sup> ккr	Brookfield / Oaktree	Ares	Apollo	Black- stone	TPG
R	anking	<b>F</b> 0.88 0.78	<b>D</b> 0.73	<b>D</b> 0.73	<b>D</b> 0.69	D 0.63	D 0.62	B 0.38
P. P. Ir	ercent Of Energy ortfolio Companies wested In Fossil Fuels	76% 97%	78%	53%	76%	74%	52%	25%
N C	lumber Of Fossil Fuel ompanies	42 28	28	40	16	14	11	2
20 C (M	020 U.S. Downstream O2 Emissions Million Metric Tons)	10.8 0	0	0	9.9	2.5	18.1	0
 A C G	lign With Science-Based limate Targets To Limit lobal Warming To 1.5ºC	NO Partial	NO	NO	Partial	Partial	Partial	Partial
D Ex A	isclose Fossil Fuel xposure, Emissions, nd Impacts	Partial Partial	NO	Partial	NO	Partial	Partial	Partial
Ř P Ti	eport A ortfolio-Wide Energy ransition Plan	NO NO	NO	Partial	NO	NO	NO	NO
lr A Ju	ntegrate Climate nd Environmental ıstice	NO NO	NO	NO	NO	NO	NO	NO
Ti Pé Ci	ransparency On olitical Spending And limate Lobbying	NO NO	NO	NO	NO	NO	NO	NO
	Number of Fossil Fuel Companies	Percent Of Energy Portfolio Companies Invested In Fossil Fuels	2020 U.S. Downstream CO2 Emissions (MT)	Climate Demands F	For Private Equity		Ranking Sca	le
	>30	>80%	≥10 million	No known commitm	ents to accomplish the	Private Equity Climate Demands	s F > 0.80	
	21 - 30	61% - 80%	≥5 million	Partial policies on cli	mate, insufficient to m	eet the Demand	D = 0.61 - 0.8	0
	10 - 20	40% - 60%	≥1 million	Incremental progres	s on climate policies, in	sufficient to meet the Demand	C = 0.41 - 0.6	D
	<10	<40%	<1 million	Substantial progress	on the Demand		B = 0.21 - 0.4	D
	0	0	0	Alignment with Dem	nands		A = 0 - 0.20	



### **Private Equity Propels The Climate Crisis**

Private capital continues its rapid growth with nearly \$10 trillion in assets.<sup>11</sup> Within private markets, private equity asset managers are major investors in energy, having invested over \$1 trillion in energy companies since 2010, thereby playing a significant role in propelling the climate crisis.<sup>12</sup> Ten of the largest private equity buyout firms had 80 percent of their energy portfolios in fossil fuels, as of October 2021.<sup>13</sup> Given the depth and breadth of private equity's fossil fuel commitment, investors face significant climate risks associated with private equity's existing portfolio of polluting assets, as well as financial risks as society seeks to decrease greenhouse gas (GHG) emissions.

Private equity asset managers typically hold companies for an average of five years.<sup>14</sup> Thus, the relatively short-term nature of ownership means that if they so choose, a private equity asset manager could achieve fossil-free portfolios and emissions reduction targets within this decade, rather than on a timeline a generation away.<sup>15</sup> The way private equity managers exit from existing holdings will matter too. Given the urgent need to accelerate serious climate action, private equity managers could – if they made different investment choices – make an important contribution to help the world stay under a 1.5 degrees Celsius warming scenario, but private equity managers have not seized this opportunity, diminishing our ability to mitigate the climate crisis and safely manage climaterelated financial risk. In terms of long-term climate commitments, private equity behemoths, such as Blackstone, Apollo, KKR, Carlyle, and TPG, have not even signed onto the Glasgow Financial Alliance for Net Zero (GFANZ), in contrast to commitments from other banking and insurance industry leaders who represent \$130 trillion in assets.<sup>16</sup>

The Private Equity Climate Scorecard demonstrates that all eight large private equity buyout firms' investments are exposed to fossil fuels in their energy portfolios, placing their investors and the public at great financial risk. Their lack of substantive progress in meeting the Climate Demands particularly around transparency, integrating climate and environmental justice, and aligning their portfolio with the 1.5 degrees Celsius warming scenario, as further described in this report, indicates that private equity firms not only lack climate leadership but are lagging in the effort to move the world to a renewable energy future.



### **Climate And Financial Risks**

In the more immediate term, as large oil, gas, and coal companies seek to shed assets, private equity asset managers have repeatedly acquired and operated these fossil fuel assets out of the spotlight of public markets and beyond the oversight of financial regulators.<sup>17</sup> Similarly, as more banks internalize and account for the true long-term risk of these assets, private equity managers have been able to access cheap debt<sup>18</sup> to expand their empires of polluting assets such as oil wells, pipelines, coal plants, and liquified natural gas (LNG) export terminals. As private equity continues to operate and expand fossil fuel capacity and infrastructure, the underlying assets are highly leveraged – leading to increased risks of bankruptcy, stranded assets, and financial contagion, often with the state bearing the costs of environmental cleanup as well as poor investment returns.<sup>19</sup> They also represent a growing percentage of assets that are not subject to comparable regulatory scrutiny as their public market counterparts - a regulatory arbitrage enabling these assets to operate

in the shadows of our economy. As public fiduciaries, public pension fund trustees and staff should be mindful of how institutional investments in fossil fuels may impact long-term state budgets' cost burdens.

In May 2021, the International Energy Agency said that a cessation of new oil, gas, and coal investments was needed for alignment with a 1.5 degrees Celsius warming scenario.<sup>20</sup> The United Nations Intergovernmental Panel on Climate Change (IPCC) has made clear that the 1.5 degrees Celsius warming threshold is on track to be breached in the early 2030s,<sup>21</sup> making the next eight years crucial for emissions reductions. The urgency increased further in May 2022, when scientists at the World Meteorological Organization found that the probability of surpassing the 1.5 degrees Celsius threshold is now 50 percent, having increased from zero percent in 2015. The global average temperature was already 1.1 degrees Celsius above pre-industrial levels in 2021.22

8

# **ASSESSING PRIVATE EQUITY'S CLIMATE IMPACT**

# **Private Equity's Energy Footprint**

Table 1: Approximate Size of Eight Selected Private Equity Energy Portfolios

Brookfield / Oaktree	Blackstone	KKR	Carlyle / NGP	Warburg Pincus	Ares	Apollo	TPG
~ \$107.4 billion	~\$34 billion	~\$25.6 billion	~\$24 billion in fossil fuels	~\$10.9 billion	~\$6.7 billion	~\$6.5 billion	\$1.3 billion in fossil fuels
~14.3% of AUM	~3.6% of AUM	5.3% of AUM	8% of AUM	17% of AUM	2% of AUM	~1.3% of AUM	< 1% of AUM

Note: Due to the lack of transparency and standardized, mandatory reporting in the private equity industry, the size of energy portfolio estimates are provided in absolute terms and as a percentage of total assets under management (AUM) for each firm. Additional details and methodology for calculating each private equity firm's energy portfolio can be found in Appendix B.

In order to hold private equity asset managers accountable for the impacts and risks their fossil fuel portfolios have on the environment and communities, it is important to first understand the magnitude of their energy portfolios. However, private equity firms do not consistently report information about their holdings, including in the energy sector, making their real contributions to the climate crisis opaque to investors and the public.

The Private Equity Climate Scorecard analyzes eight private equity firms with some of the largest energy portfolios and describes their energy holdings and their ability to meet the Climate Demands based on research to piece together publicly available information.<sup>23</sup> These eight firms alone collectively oversee around \$216 billion in energy assets, an amount similar to the fossil fuel financing of the world's top five banks last year.<sup>24</sup> The absence of regulatory guidance on disclosing energy holdings and reporting the size of private equity firms' energy portfolio means that publicly available information is not comprehensive and not standardized among firms, which means that the data in the scorecard may undercount energy holdings. For example, in Table 1, the energy portfolio estimates for TPG Capital and The Carlyle Group along with its subsidiary NGP Energy Capital<sup>25</sup> reference the private equity firms' holdings in fossil fuels, whereas

the remaining firms reference the private equity firms' holdings in their entire energy portfolio, including both fossil fuel and renewable energy companies.

Brookfield Asset Management, along with its subsidiary Oaktree Capital, stands out among its peers as having the largest energy portfolio, having invested \$107.4 billion (or 14.3 percent of its assets under management) in energy – of which 53 percent is invested in fossil fuels (see Appendix B). As a percentage of assets under management, Warburg Pincus also has a similarly significant share invested in energy, at 17 percent.<sup>26</sup> The rest of the private equity firms all have less than 10 percent of their assets under management invested in energy (see Appendix B for detailed calculations), which for large private equity buyout firms, can translate to tens of billions of dollars. For instance, Carlyle and NGP's carbon-based, fossil fuel energy portfolio is equivalent to approximately \$24 billion assets under management.<sup>27</sup> TPG has the smallest fossil fuel energy portfolio with less than \$1.3 billion in assets.<sup>28</sup>

The billions of dollars private equity firms have deployed to drill, frack, transport, store, and refine fossil fuels and generate energy from them, stand in stark contrast to what climate scientists and international policymakers have called for to align our trajectory to the 1.5 degrees Celsius warming scenario.<sup>29</sup>

### **Private Equity Climate Scorecard Indicators**

The Private Equity Climate Scorecard analyzes eight large private equity buyout managers based on four indicators that provide a measure of the firms' energy holdings, percent in fossil fuels, downstream emissions, and climate commitments.<sup>30</sup> This information is intended to facilitate greater transparency so that investors and the public can better assess and mitigate the financial and climate risks associated with fossil fuels.

The fossil fuel industry's supply chain can be divided into three major categories depending on their role: upstream, downstream, and midstream. Upstream fossil fuel companies are involved with the identification, exploration, and production of raw materials such as oil, coal, and natural gas. Downstream fossil fuel companies engage in any activity related to the post-production of the fossil fuel such as refineries and power plants. Midstream companies connect upstream and downstream operations and can include transportation infrastructure such as pipelines or storage containers. Companies throughout the fossil fuel supply chain emit harmful pollutants into the atmosphere. However, the scorecard only reports 2020 carbon dioxide emissions for private equity's downstream companies as emissions data for upstream and midstream assets is not readily available.<sup>31</sup> The lack of emissions information throughout private equity's fossil fuel value chain further underscores the need for greater transparency by the firms themselves so that investors and other stakeholders can accurately account for the climate and financial risks.

Noting the lack of transparency and standardization surrounding private equity energy portfolios, the authors of this report conducted analyses of publicly available information to compile energy holdings for each private equity firm (see Appendix B for more details), including sources such as Pitchbook, the U.S. Securities and Exchange Commission filings, company web pages, press releases, and news stories. Energy holding information is shown as the number of fossil fuel companies each private equity firm held in October 2021 and the percentage of fossil fuel companies (relative to renewable energy companies) in the energy portfolio.<sup>32</sup> For renewable energy, this report includes energy generation, infrastructure investments or utility-scale solar and wind, but does not include investments in other transition-related companies like carbon credits or carbon capture, energy analytics, residential solar, or electric vehicles.

Just as there is no standard for reporting energy portfolio or portfolio company holdings, there is no single regulatory standard for disclosing climate commitments, and therefore each firm may or may not develop its own climate policies. Thus, we included a qualitative metric based on a set of 27 sub-demands that private equity asset managers should implement to reduce climate and financial risks associated with their current and future energy investments. The subdemands are grouped into the following five primary demands: alignment with science-based climate targets to limit global warming to 1.5 degrees Celsius; disclosure of fossil fuel exposure, emissions, and impacts; reporting of a portfolio-wide energy transition plan; integration of climate and environmental justice; and providing transparency on political spending and climate lobbying (see Appendices A and D for complete details on all demands and sub-demands).

The values of the four indicators were normalized, weighted, and aggregated into a single score for each private equity firm (see Appendix C for full scorecard methodology).

### F for Failing: Carlyle Leads The Pack Of Private Equity Polluters

#### The Carlyle Group

The scorecard finds that The Carlyle Group and its subsidiary, NGP Energy Capital,<sup>33</sup> which focuses almost exclusively on fossil fuel assets,<sup>34</sup> are the worst fossil fuel backers within the sample of eight large private equity buyout firms. Carlyle is one of the world's largest alternative asset managers with \$376 billion in assets under management,<sup>35</sup> and has investments in more fossil fuel companies than its peers. In 2020 alone, its downstream power plants emitted over 10.8 million metric tons of carbon dioxide into the atmosphere–second only to Blackstone, which emitted 18.1 million metric tons.<sup>36</sup>

Despite Carlyle's public commitment towards net zero by 2050 with a reference to its Task Force on Climate-Related Financial Disclosures (TCFD) report,<sup>37</sup> Carlyle's 2021 TCFD report does not include NGP in the scope of its reporting.<sup>38</sup> This is an omission that should concern investors and the public because Carlyle's recent 2022 second-quarter earnings report indicates that nearly 20 percent of the firm's revenue and nearly 61 percent of the firm's profit for the first half of the year came from NGP.<sup>39</sup>

Carlyle helped launch the ESG Data Convergence Project,<sup>40</sup> with CalPERS, a major institutional investor, to set standardized voluntary reporting within the private equity industry on a few Environmental, Social, and Governance (ESG) metrics. However, Carlyle generates significant portions of its revenue and profit from fossil fuels and has not committed to publicly disclosing its holdings, emissions, and impacts.<sup>41</sup> Moreover, Carlyle has no plans on stopping its investments in fossil fuels. In a May 2022 interview with the *Financial Times*, former Carlyle Chief Executive Kewsong Lee "highlighted investment in liquefied natural gas export facilities and pipelines as particular areas of opportunity for the Washingtonbased private equity group."<sup>42</sup>

### The D Bracket: A Deep Bench Of Private Equity Polluters

Several of Carlyle's peers are not far behind in terms of the climate devastation they cause. Blackstone, Warburg Pincus, Ares, KKR, and Brookfield and its subsidiary Oaktree,<sup>43</sup> constitute a deep bench of private equity polluters.

#### Warburg Pincus

Warburg Pincus has \$85 billion in assets under management.<sup>44</sup> Of the private equity firms in the sample, Warburg Pincus's \$11 billion energy portfolio (see Appendix B) has the largest share of fossil fuel companies, relative to renewable energy companies. Based on research from October 2021, Warburg Pincus owns nearly 30 energy companies, 97 percent (28 portfolio companies) of which are in fossil fuels.<sup>45</sup>

In March 2021, Warburg Pincus announced that it will not seek fossil fuel investments in its next buyout

Carlyle's recent 2022 secondquarter earnings report indicates that nearly 20 percent of the firm's revenue and nearly 61 percent of the firm's profit for the first half of the year came from NGP Energy Capital, which focuses almost exclusively on fossil fuel assets.

fund.<sup>46</sup> But in October of 2021, Warburg Pincus-owned Citizen Energy acquired a portfolio of oil and gas production assets located in Oklahoma through a \$153 million leveraged buyout.<sup>47</sup> In June 2022, Citizen Energy acquired more upstream acreage in Oklahoma.<sup>48</sup>

In November 2021, Warburg Pincus and another private equity firm, Kayne Anderson, acquired over 62,000 net acres of upstream assets from Reliance Industries, according to Pitchbook.<sup>49</sup>

Moreover, in the second quarter of 2022, Warburg Pincus acquired ClimeCo, a decarbonization advisory firm specializing in carbon offsets,<sup>50</sup> and made an equity commitment in Viridi Energy, a renewable natural gas (RNG) company.<sup>51</sup> While these investments appear to be a move into clean energy, carbon credits and RNG are false solutions. The offsets (or carbon credits) market is largely unregulated<sup>52</sup> and there is mounting evidence showing that these offsets fail to deliver their promised GHG emissions reductions.<sup>53</sup> In addition, socalled "renewable" natural gas is a costly, high-carbon intensity, and relatively scarce "low-carbon" fuel.<sup>54</sup>

Although the firm did not disclose metrics or details on emissions, Warburg Pincus' 2021 ESG Report states that 74 percent of its Scope 1 and Scope 2 portfolio emissions are from investments in the energy sector.<sup>55</sup> In short, Warburg Pincus still has a lot of its existing energy portfolio to clean up, even amidst its attempts to invest in clean energy solutions.

#### KKR

KKR is one of the largest private equity firms in the world with \$479 billion of assets under management.<sup>56</sup> The firm owns at least 36 energy companies with 78 percent (28 portfolio companies) of them in fossil fuels.<sup>57</sup> In March 2022, KKR reported that it oversees \$40 billion in infrastructure assets globally.<sup>58</sup>

KKR has a "Climate Action Strategy" and says it integrates TCFD questions into its internal reporting processes, including collecting emissions information from some portfolio companies. However, KKR has not made specific portfoliowide emissions reduction commitments, nor has it committed to public disclosure of fossil fuel holdings or emissions. KKR also has stated that it intends to continue investing in conventional, fossil fuel energy projects as part of its climate action strategy.<sup>59</sup>

One key example of KKR's commitment towards fossil fuels is evident in its formation of Crescent Energy in 2021 as its "primary platform for pursuing upstream oil and natural gas opportunities,"<sup>60</sup> as well as midstream infrastructure.<sup>61</sup> Shortly after it was formed, it acquired all of ConocoPhillips' drilling assets in Wyoming.<sup>62</sup> The move by ConocoPhillips coincides with the greater trend of publicly-traded major oil companies looking to unload some of their oil and gas assets due to pressure from shareholders to reduce emissions;<sup>63</sup> and KKR is one of the private equity firms stepping in to take them over. In February 2022, Crescent Energy expanded its portfolio by acquiring 145,000 net acres of oil and gas assets in a Utah basin.<sup>64</sup>

Moreover, KKR is invested in the Coastal Gaslink Pipeline in Canada, where the Wet'suwet'en hereditary chiefs' opposition has resulted in protests, delays, and blockades.<sup>65</sup> Indigenous communities opposing the 400-mile pipeline construction through their unceded territories traveled across Canada in August 2022 to highlight their fight for sovereignty and the environmental risks of the project to water and wildlife.<sup>66</sup>

KKR has also backed the State Financial Officers Foundation (SFOF), a nonprofit organization, which, according to a New York Times investigation in August 2022, has been "pushing Republican state treasurers, who are mostly elected officials and who are responsible for managing their state's finances, to use their power to promote oil and gas interests and to stymie Mr. Biden's climate agenda."<sup>67</sup> From late January until August 6, 2022, KKR was listed as a Bronze Sponsor or Friend of SFOF.<sup>68</sup> Four days after the New York Times investigation about SFOF was published, KKR's name was no longer associated with SFOF on its website.<sup>69</sup> KKR's past support of coordinated political efforts to obstruct regulatory and legislative efforts to mitigate climate change underscores the need for greater transparency and accountability surrounding private equity's political contributions and lobbying.

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 under the opacity that is inherent to private equity.

#### Brookfield Asset Management and Oaktree Capital

Brookfield Asset Management is a large private equity infrastructure asset manager that manages \$750 billion in assets under management,<sup>70</sup> and has held a majority stake in Oaktree Capital Management since 2019.<sup>71</sup> They collectively own 75 energy companies, with 53 percent (40 portfolio companies) of them in fossil fuels.<sup>72</sup>

Brookfield has said it is committed to being netzero by 2050.73 The firm has said it will "track and report GHG emissions consistent with GHG Protocol [Greenhouse Gas Protocol] and PCAF [Partnership for Carbon Accounting Principles] standards," publish decarbonization plans every five years, and incorporate TCFD disclosures for the 2022 fiscal year, and is a signatory to the Glasgow Alliance for Net Zero [GFANZ].<sup>74</sup> Despite its public commitment to net-zero emissions, Brookfield continues to actively pursue fossil fuel investments including the nearly \$7 billion buyout of Canada's fourth-largest midstream company, Inter Pipeline.75 In 2020, Brookfield acquired a 40 percent stake in an LNG export terminal in Louisiana for \$7 billion<sup>76</sup> (which is co-owned by the country's largest LNG producer, Cheniere Energy<sup>77</sup>).

Oaktree is expanding its fossil fuel exposure through deals such as its ongoing partnership with Diversified Energy, the largest well owner in the United States and a major methane polluter.<sup>78</sup> In 2021, the Oaktree and Diversified joint venture purchased additional upstream assets in Oklahoma.<sup>79</sup>

Although Brookfield has made a commitment to net-zero by 2050, it appears that it will continue to own and operate plenty of fossil fuel infrastructure. Brookfield's double standard underscores the need for private equity firms to commit to a fossil-free portfolio sooner, rather than by 2050 – which is nearly a generation away.

#### **Ares Management**

Ares Management holds \$334 billion in assets under management.<sup>80</sup> Although Ares' \$6.7 billion energy portfolio<sup>81</sup> may not be as large as its peers, it still packs a polluting punch. With 21 energy investments in its portfolio, 76 percent (16 portfolio companies) are in fossil fuels.<sup>82</sup> Ares' downstream power plants emitted 9.5 million metric tons of carbon dioxide in 2020.<sup>83</sup>

Ares noted that its Corporate Opportunities Fund VI would not invest in energy, but said energy investments "will be completed outside of our sixth fund and in our dedicated energy funds going forward."<sup>84</sup> According to Ares' 2021 Sustainability Report, it plans to set an interim climate change target sometime in 2023 and its inaugural Climate Action Report 2022 "aim(s) to transparently disclose the anticipated impacts of climate change on Ares," but doesn't specify disclosures of emissions or other climate impacts from its investments.<sup>85</sup> Although the reports affirm Ares' interest in the energy transition, it is lacking in details or timelines, Ares has not disclosed detailed information on its portfolio companies' emissions. Instead, Ares' "Environmental Policy" "focuses on our internal operations" and includes tracking and publishing carbon dioxide emissions from travel for their staff.<sup>86</sup> The policy does not include their portfolio of billions of dollars in energy investments which have far greater environmental impacts.

Until the firm discloses its plan to transition away from fossil fuel assets and portfolio companies' emissions and impacts, it scores alongside other 'D bracket' private equity actors who are making inadequate progress to respond to the climate crisis.

#### **Apollo Global Management**

Apollo Global Management has a smaller energy footprint compared to other large buyout firms. However, in an energy portfolio of nearly 20 companies, 74 percent (14 portfolio companies) are in fossil fuels. <sup>204</sup> Recently, Apollo has made changes in terms of its future energy portfolio. Earlier in 2022, *Bloomberg* reported that Apollo pledged not to invest in fossil fuels in the \$25 billion buyout fund it is raising.<sup>87</sup> Yet, this pledge does not address the impacts of Apollo's existing portfolio or its future energy commitments in non-buyout funds. Notably, in 2020, just one of Apollo's downstream power plants emitted nearly 2.5 million metric tons of carbon dioxide into the Pennsylvania countryside.<sup>88</sup>

Apollo provides some reporting on greenhouse gas emissions, covering Scopes 1 and 2, but excludes Scope 3 - which would include its portfolio companies.<sup>89</sup> The reporting also lacks adequate transparency as it does not name the portfolio companies responsible for the emissions.

Although Apollo is taking steps in a direction that would help reduce some impacts on climate change in the future, it has not sufficiently addressed the emissions or risks in its existing fossil fuel portfolio nor made comprehensive climate disclosures.

#### **The Blackstone Group**

Blackstone Group is one of the world's largest private equity firms, with nearly \$941 billion in assets under management<sup>90</sup> and close to \$34 billion (or 3.6 percent) invested in energy (see Appendix B). Currently, Blackstone backs 21 energy companies, with 52 percent (11 portfolio companies) of them fossil fuel based.<sup>91</sup> Blackstone is also one of the worst polluters when it comes to downstream assets. In 2020, Blackstone's power plants produced 18.1 million metric tons of carbon dioxide emissions into the atmosphere – more than any other private equity firm listed on the scorecard<sup>92</sup> – and equivalent to the annual emissions of nearly 4 million gas-powered vehicles.<sup>93</sup>

In September 2020, Blackstone announced an emissions reduction program "setting a goal of 15 percent carbon emissions reduction across all new investments where we control energy usage."<sup>94</sup> Two years later *Bloomberg* reported that Blackstone would not pursue upstream exploration and production assets in its next energy or credit funds, but that it would continue investing in midstream and downstream investments.<sup>95</sup> To date, Blackstone's policy does not specify how the firm plans to reduce emissions in its existing fossil fuel portfolio of downstream, midstream, and upstream assets. The firm is part of the ESG Data Convergence Project but has not committed to publicly disclosing its emissions or reductions.<sup>96</sup>

Blackstone's continued exposure to fossil fuels raises deep concerns about its portfolio's impact on the climate. Blackstone co-owns one of the nation's dirtiest coal plants, the General J.M. Gavin (Gavin) coal plant in Ohio. Gavin was the third-largest carbon dioxide emitter among coal plants in the United States in 2020, according to data from the Environmental Protection Agency.<sup>97</sup> In 2021, the power plant emitted more than 7.3 million metric tons of carbon dioxide during the first half of the year.<sup>98</sup> Gavin's continued operation increases climate risks and financial risks for investors. Blackstone and Arclight negotiated to extend the debt maturity of the "struggling" Gavin plant's parent company in 2022, and refinanced the \$1.7 billion term loan that was set to mature in January 2024 after offering sweeteners to entice lenders, according to the *Wall Street Journal.*<sup>99</sup>

Given that Blackstone's emissions from downstream power plants have been larger than its peers – which poses both climate and financial risks – it should be deeply concerning for investors and the public to have Blackstone continue investing in advancing fossil fuel infrastructure and worsening the climate crisis with little transparency.

#### Earning a B Grade: Portfolio Movement Away from Fossil Fuels

#### **TPG Capital**

TPG Capital has the smallest energy portfolio compared to its peers, with only 8 energy companies. Of these just 25 percent of them (2 portfolio companies) were in fossil fuels as of October 2021.<sup>100</sup> According to TPG's 2022 ESG report, less than 1 percent of its assets under management was invested in fossil fuel companies.<sup>101</sup> TPG oversees \$127 billion in assets under management,<sup>102</sup> which would mean less than \$1.3 billion in fossil fuels.

In the firm's 2022 ESG report, TPG states that it estimated its financed emissions for the past three years in accordance with the Partnership for Carbon Accounting Principles (PCAF) standard and has conducted a qualitative scenario analysis aligned with TCFD principles for climate risk exposure for their investment portfolios.<sup>103</sup> Although the firm has conducted this analysis, it has not disclosed the full or detailed results of its findings. Instead, TPG has only disclosed the results of the firm's "Operational Emissions" for the "firm's offices and employee activities, to better understand our emissions and identify opportunities for reduction and offsetting." Although its portfolio has moved significantly away from fossil fuels, TPG's minimal level of disclosure is inadequate for investors or the public to accurately account for the level of climate risks in the firm's portfolio.

TPG has yet to make a public commitment to transition away from fossil fuels in its future funds. Although TPG touts its climate-friendly series of Rise Funds,<sup>104</sup> it has not met an adequate threshold of climate risk transparency.

# **CLIMATE DEMANDS FOR PRIVATE EQUITY**

### **Holding Private Equity Accountable**

Given the billions of dollars private equity firms have invested in fossil fuels – including the energy holdings of the eight large private equity managers evaluated in the scorecard – and the need for immediate climate action, this report recommends a set of commitments to hold private equity accountable.

Private equity managers must be transparent about their investments in fossil fuels. Private equity asset managers must also account for the impacts and risks their fossil fuel portfolios have on the environment and communities.<sup>105</sup> The industry must act to remediate the harms, particularly in communities of color where climate impacts and toxic pollution are the highest. Private equity managers must simultaneously transition to a clean energy economy, including a just transition for workers.

Together, Americans for Financial Reform Education Fund and the Private Equity Stakeholder Project, along with Greenpeace, Sierra Club, Food and Water Watch, Friends of the Earth, Natural Resources Defense Council, Action Center on Race and the Economy, Climate Finance Action, Stand.Earth, Public Citizen, and The Sunrise Project call on private equity firms to implement these demands and reduce climate and financial risks associated with their current and future investments (see the detailed explanation of each demand in Appendix A).

### **Climate Demands For Private Equity**

- 1. ALIGN WITH SCIENCE-BASED CLIMATE TARGETS TO LIMIT GLOBAL WARMING TO 1.5°C
  - Immediately cease investments in fossil fuel expansion
  - Cease gas flaring and venting by 2025
  - Achieve a fossil-free energy portfolio by 2030
  - Retire fossil fuel energy assets by 2030<sup>106</sup>
- 2. DISCLOSE FOSSIL FUEL EXPOSURE, EMISSIONS, AND IMPACTS
  - Disclose all fossil fuel assets and financial estimates and assumptions regarding asset impairment
  - Disclose all direct and indirect emissions<sup>107</sup> and climate-related community impacts

#### 3. REPORT A PORTFOLIO-WIDE ENERGY TRANSITION PLAN

- Disclose a portfolio-wide climate transition plan
- Disclose role of voluntary carbon offsets immediately and cease their utilization by 2025
- Disclose use of carbon removal, carbon utilization and storage, and related technologies
- Disclose comprehensive analyses under various climate warming scenarios and decarbonization timelines

# 4. INTEGRATE CLIMATE AND ENVIRONMENTAL JUSTICE

- Establish robust due diligence, verification, and grievance redress mechanisms to ensure that all human rights and land rights are respected
- Require all portfolio companies to adopt nodeforestation, no peat, and no exploitation (NDPE) policies
- Develop a just transition program with impacted communities and workers

#### 5. PROVIDE TRANSPARENCY ON POLITICAL SPENDING AND CLIMATE LOBBYING

- Disclose political spending and climate lobbying at asset manager, portfolio company, and trade association level
- Provide transparency on alignment with global standards on responsible corporate climate lobbying

# CONCLUSION

Record heat waves have pummeled much of the country this summer.<sup>108</sup> Heavy rains led to widespread flooding in eastern Kentucky with at least 37 people losing their lives and hundreds of people displaced.<sup>109</sup> In June 2022, torrential rains altered so much of the Yellowstone River that local whitewater raft guides said that they would need to relearn how to navigate the river's new route.<sup>110</sup> Climate change is here and is drastically altering lives.

In the midst of the climate crisis, substantial change is necessary within the capital markets. Private equity firms, as fiduciaries of billions of dollars of public sector workers' retirement savings, have a responsibility to take more of a leadership role in redirecting flows of capital towards clean energy endeavors that minimize climate and financial risks as the world transitions away from fossil fuels. But they have not.

Private equity asset managers such as Blackstone, Warburg Pincus, Ares, and Apollo have made varying commitments to transition away from fossil fuels in their next buyout funds. Yet, these commitments do not offset their current investments in the fossil fuel supply chain. Nor have they provided adequate disclosure regarding their climate risks, energy holdings, and energy transition plans. Other private equity asset managers such as TPG, Carlyle/NGP, Brookfield/Oaktree, and KKR have all refrained from making any concrete commitments around transitioning away from fossil fuels in future funds and similarly lack adequate disclosures.

In June 2022, U.N. Secretary-General António Guterres, in reference to the ongoing war in Ukraine and the European Commission's sped-up plan to increase the European Union's renewable energy capacity and reduce its reliance on Russian fossil fuels,<sup>m</sup> remarked **"new funding for fossil fuel exploration and production infrastructure is delusional. It will only further feed the scourge of war, pollution and climate catastrophe."**<sup>112</sup> "New funding for fossil fuel exploration and production infrastructure is delusional. It will only further feed the scourge of war, pollution and climate catastrophe."

— U.N. Secretary-General António Guterres, June 2022

Within this urgent context, long-term institutional investors have an opportunity to hold their private equity asset managers accountable for polluting assets still in their portfolios, and are strongly encouraged to shift capital investments towards viable and credible renewable energy solutions, and are more transparent about their holdings, emissions and impacts, not just with investors, but also the public – as we are all impacted by climate risks.

# **APPENDICES**

# APPENDIX A: ADDITIONAL BACKGROUND ON PRIVATE EQUITY CLIMATE DEMANDS

#### 1. ALIGN WITH SCIENCE-BASED CLIMATE TARGETS TO LIMIT GLOBAL WARMING TO 1.5°C:

#### a. Immediately Cease Fossil Fuel Expansion

• Immediately discontinue all new financing of or investment in fossil fuel companies and/or new projects throughout the value chain.<sup>113</sup>

#### b. Cease Flaring And Venting By 2025

• Flaring by the oil and gas industry is a major source of climate pollution, as it releases pollutants such as carbon dioxide, black soot, and methane.<sup>114</sup> Methane has more than 80 times the warming power of carbon dioxide over the first 20 years after it reaches the atmosphere and it is responsible for at least 25 percent of global warming today.<sup>115</sup> Reducing flaring is among the fastest and most impactful ways to cut global greenhouse gas emissions, though it is critical that the practice is not replaced with venting, which would have even worse climate consequences. For natural gas upstream or midstream assets, end natural gas flaring and venting by 2025, and eliminate all fugitive emissions.<sup>116</sup>

#### c. Achieve Fossil-Free Energy Portfolio By 2030

• Given that private equity typically own portfolio companies for fewer than five years,<sup>117</sup> ensure that a majority of energy holdings are in renewable energy by no later than 2025, with all energy holdings fossil-free by 2030.

#### d. Retire Fossil Fuel Energy Assets By 2030

• The urgency to limit global warming to 1.5 degrees Celsius was heightened in May 2022, when scientists at the World Meteorological Organization found that the probability of surpassing the 1.5 degrees Celsius threshold in one of the next five years is now 50 percent, having increased from virtually zero percent in 2015.<sup>118</sup> Scientists found in 2021 that the vast majority of fossil fuel reserves owned today must remain in the ground to keep warming to 1.5 degrees Celsius.<sup>119</sup> Research published in 2019 found that a pathway that limits warming to 1.5 degrees Celsius would require no additional fossil fuel power stations; plants will have to accelerate retirement plans due to continued overinvestment.<sup>120</sup> The United Nations Intergovernmental Panel on Climate Change's (IPCC) 1.5 degrees Celsius pathway, it is necessary for OECD countries to phase out investments in existing coal power plants by 2030, with all coal investments in other countries following suit by 2040. Asset managers and owners are also advised to end all new fossil fuel exploration and production and shift towards renewable energy.<sup>121</sup> Thus, private equity managers should align with the IPCC pathway on coal and begin decommissioning oil and gas power plants and pipelines, and cap exploration and production infrastructure and other related fossil fuel assets no later than 2030.<sup>122</sup>

#### 2. DISCLOSE FOSSIL FUEL EXPOSURE, EMISSIONS, AND IMPACTS

#### a. Disclose All Fossil Fuel Assets And Financial Estimates And Assumptions Regarding Asset Impairment

• Disclose all oil, natural gas, and coal assets in the asset manager's equity and credit portfolios, and

financial estimates and assumptions around future commodity prices, cash flows, asset impairment, and asset retirement obligations.

#### b. Disclose All Direct And Indirect Emissions And Climate-Related Community Impacts

- Disclose all direct and indirect emissions (Scope 1, 2, and 3 as defined by the GHG Protocol and the Partnership for Carbon Accounting Financials [PCAF])<sup>123</sup> in absolute and intensity terms as well as other climate impacts, environmental violations and litigation, and climate-related community impacts for its entire portfolio.
- Report portfolio-wide gross emissions, avoided emission carbon credits, and carbon removal credits separately from one another, without netting. If carbon offsets are purchased, they should be reported separately from greenhouse gas emissions.

#### 3. REPORT A PORTFOLIO-WIDE ENERGY TRANSITION PLAN

#### a. Disclose A Portfolio-Wide Climate Transition Plan

• Report the asset manager's progress with implementing its climate transition plan throughout the firm's entire portfolio annually, and any adjustments that have been made to original assumptions about the availability of technologies and market conditions. The climate transition plan should include a detailed description of GHG emissions reduction targets, metrics on progress toward those targets, capital expenditures due to climate impacts and for transition activities, and a commitment to increase clean energy investments, year over year.

#### b. Disclose Role Of Voluntary Offsets Immediately And Cease Their Utilization By 2025

- Offsets markets have significant environmental, accounting, and social integrity problems<sup>124</sup> that jeopardize the fulfillment of corporate climate pledges and can negatively impact marginalized communities.<sup>125</sup> Failure by companies to report their investments in offsets across their investment portfolios and how they will address these integrity problems poses a material risk to investors and the financial system.<sup>126</sup> To address these concerns, private equity asset managers must report details on whether and to what extent the asset manager is transitioning to a net zero investment portfolio through internal decarbonization efforts, by directly investing in carbon removal capacity, or by buying carbon offsets, including:
  - Disclose plan to reduce the use of carbon offsets to zero by 2025.
  - Disclose details about the procurement and holding of offsets in the firm's investment portfolio as well as the GHG emissions reductions achieved and anticipated from these offsets projects.
  - Disclose whether and to what extent it has purchased offsets over the reporting period and retired offsets as compensation for any gross emissions during the reporting period.
  - Disclose the registry number and details of the projects underlying any carbon offsets acquired, and whether emissions were purportedly reduced, avoided, or removed. For removal, indicate the expected time period of emissions storage.
  - While offsets are in use, state all assumptions used to calculate the GHG emissions changes.

#### c. Disclose Use Of Carbon Removal, Carbon Utilization And Storage, And Related Technologies

 Carbon dioxide removal (CDR) technologies and carbon capture utilization and storage (CCUS) will not be able to address extraction-driven climate and ecological crises at the scale necessary as long as fossil fuels continue to be extracted and burned. Both CDR/CCUS contributes to worsened air quality directly, as the carbon capture process generates toxic pollution through fuel combustion and chemical release, as well as by increasing the lifetime of assets that produce toxic air pollutants, disproportionately harming disadvantaged, and other environmental justice communities.<sup>127</sup> Moreover, as nearly all captured carbon to date has been used for enhanced oil recovery, CDR/CCUS may ultimately increase emissions overall when additional oil production is considered. As such, private equity managers and their portfolio companies should disclose any use of carbon dioxide removal, carbon capture utilization and storage, and related technologies. They should also disclose plans to reduce investment in CDR/CCUS and instead plan to meet GHG targets through bonafide emission reductions.

#### d. Disclose Comprehensive Analyses Under Various Climate Warming Scenarios

 Disclose a comprehensive climate risk management strategy under a 1.5 degrees Celsius global warming scenario consistent with science-based emissions targets, as well as scenarios above 1.5 degrees Celsius, including at least 2 degrees Celsius and 3 degrees Celsius, assuming both orderly and disorderly transition scenarios, as outlined by the Network for Greening the Financial System.<sup>128</sup>

#### 4. INTEGRATE CLIMATE AND ENVIRONMENTAL JUSTICE

- a. Establish Robust Due Diligence, Verification, And Grievance Redress Mechanisms To Ensure That All Human Rights And Land Rights Are Respected
- Establish robust due diligence, verification, and grievance redress mechanisms to ensure that all human rights are respected, particularly the rights of Indigenous peoples, including their rights to their water and lands and the right to Free, Prior, and Informed Consent, as articulated in the UN Declaration on the Rights of Indigenous Peoples,<sup>129</sup> and ensure that ongoing community impacts are monitored.

#### b. Require All Portfolio Companies To Adopt No-Deforestation, No Peat, And No Exploitation (NDPE) Policies

• Forests not only source the livelihoods for 22 percent of humanity, but they also absorb 40 percent of greenhouse emissions.<sup>130</sup> Asset managers should prohibit financing or investment in any company or asset that involves the degradation or loss of natural forests or other natural ecosystems, with particular emphasis on peatlands, or any company that fails to comply with a No Deforestation, No Peatland, No Exploitation (NDPE) policy at a corporate group level.<sup>131</sup> Reducing deforestation and the degradation of natural ecosystems protects critical carbon sinks. Any expansion of industrial-scale forestry, agriculture, or commodity production that directly or indirectly results in forest degradation and deforestation, new infrastructure in Intact Forest Landscapes, or violations of the rights of Indigenous Peoples, is incompatible with the Paris Agreement.<sup>132</sup> Companies expanding the production and use of fossil fuels or the degradation of ecosystems, or that are violating human rights, cannot be regarded as transitioning toward climate alignment.<sup>133</sup> As such, asset managers should eliminate deforestation, conversion, and associated human rights abuses from their portfolios by 2025.<sup>134</sup>

#### c. Develop A Just Transition Program With Impacted Communities And Workers

• Engage with impacted communities to develop a just transition program both for the workforces facing dislocation from the energy transition, and communities impacted by current fossil fuel holdings to ensure remediation of health and environmental harms, including land use changes and deforestation, infringement of land rights and the rights of Indigenous peoples, natural resource extraction, disruption to local economies, air and water pollution, harm to public health and safety, and worker dislocation.<sup>135</sup>

#### 5. PROVIDE TRANSPARENCY ON POLITICAL SPENDING AND CLIMATE LOBBYING

- a. Disclose Political Spending And Climate Lobbying At Asset Manager, Portfolio Company, And Association Level
- Companies should be consistent in their policy engagement in all geographic regions and they

should ensure any engagement conducted on their behalf or with their support is aligned with restricting global warming to the 1.5 degrees Celsius scenario. As such asset managers must annually disclose the political spending and climate lobbying of:

- the asset manager and its executives;
- its portfolio companies and their executives;
- of the associations, alliances, coalitions, or think tanks of which it is a member or to which it provides support<sup>136</sup>
- b. Provide Transparency On Alignment With Global Standards On Responsible Corporate Climate Lobbying
- Provide transparency on the asset manager's alignment with the Global Standard on Responsible Corporate Climate Lobbying including:
  - Make a public commitment to align all climate change lobbying for the asset manager, its subsidiaries, and associations, alliances, and coalitions of which it is a member with the goal of restricting global temperature rise to 1.5 degrees Celsius above pre-industrial levels
  - Establish an annual monitoring and review process to ensure that all direct and indirect climate change lobbying activities across all geographies are consistent with the goal of restricting global temperature rise to 1.5 degrees Celsius above pre-industrial levels
  - Establish a clear framework for addressing misalignments between the climate change lobbying positions adopted by the associations, alliances and coalitions of which it is a member and the goal of restricting global temperature rise to 1.5 degrees Celsius above pre-industrial levels

# **APPENDIX B: PRIVATE EQUITY CLIMATE SCORECARD - DETAILS AND SOURCING**

In the Private Equity Climate Scorecard, the rows containing the number of fossil fuel companies and the percent fossil fuel companies in the energy portfolio are based on the "Private Equity Propels the Climate Crisis" report that examined the energy holdings for ten of the world's largest alternative asset managers, published in October 2021 with updates in September 2022 based on a review of emailed responses from several of the private equity firms.<sup>137</sup> To compile energy holding for private equity firms, the authors of the report drew on information from Pitchbook, Securities and Exchange Commission (SEC) filings, company web pages, press releases, news stories, and other sources. Information about private equity's U.S. 2020 downstream carbon dioxide emissions (in metric tons) is from the May 2022 report "Private Equity Ownership of U.S. Power Plants: A Hidden Climate Threat."<sup>138</sup>

These are the energy holdings for the eight firms included in the scorecard:

Table 1: Energy Holdings For The Eight Private Equity Firms Included In The Scorecard (By Number of Fossil Fuel Companies)

Private Equity Firm	Number of Fossil Fuel Companies Held	Number of Renewable Companies Held	Total Number of Energy Companies	Percent Fossil Fuels
Carlyle/NGP	42	13	55	<b>76</b> %
Brookfield/Oaktree	40	35	75	53%
KKR	28	8	36	<b>78</b> %
Warburg Pincus	28	1 (0)	29	<b>97</b> %
Ares	16	5	21	76%
Apollo	14	5	19	<b>7</b> 4%
Blackstone	11	10	21	52%
TPG	2	6	8	25%

Private equity firms do not consistently report information about their holdings, including those in the energy sector. The scorecard analyzes eight firms with some of the largest energy portfolios and provides a description of their energy holdings and ability to meet the Private Equity Climate Demands based on publicly available information, which means that the data in the scorecard may undercount energy holdings and may contain inconsistencies. The absence of regulatory guidance on reporting energy holdings means that publicly available information is not standardized among firms. Similarly, there is no single regulatory standard for disclosing climate commitments and, therefore, each firm may develop its own climate policies.

Below is a description of the energy holdings and public pledges as related to the Demands for each of the eight private equity firms featured in the scorecard.

#### **Carlyle Group/NGP**

Carlyle has a majority ownership stake in NGP Energy, per its 2021 Form ADV Brochure filed with the SEC.<sup>139</sup> Carlyle's 2021 10-k filed Feb 10, 2022 reported that "Our investment in NGP entitles us to 55 percent of the management fee-related revenue of the NGP entities that serve as advisors to the NGP Energy Funds and is subject to impairment under the U.S. GAAP accounting for equity method investments." <sup>140</sup> **Energy Portfolio:** Carlyle's annual 10-K filed with the SEC in February 2022 reported, "Funds focused on investing in carbon-based energy ("Carbon Energy Funds") remain a significant part of our business (8 percent of total AUM)."<sup>141</sup> Based on a total of \$300 billion in assets under management as of December 31, 2021, Carlyle would have around \$24 billion in carbon-based energy.<sup>142</sup> Carlyle and NGP are invested in at least 42 energy companies with 76% of them in fossil fuels.<sup>143</sup>

**Downstream CO<sub>2</sub> Emissions:** Information about private equity's 2020 U.S. downstream carbon dioxide emissions (in metric tons) is from the May 2022 report "Private Equity Ownership of U.S. Power Plants: A Hidden Climate Threat."<sup>144</sup> The emissions data in the scorecard report were updated from the EIA's update of its data on April 12, 2022.

**Alignment with Private Equity Climate Demands:** Carlyle made a "Net Zero by 2050" announcement in February 2022.<sup>145</sup> Carlyle's "Net Zero by 2050" announcement includes a reference to its TCFD report. Carlyle's 2021 TCFD report states that NGP is not included in the scope of the reporting.<sup>146</sup> Carlyle participates in the ESG Data Convergence Project, but Carlyle's announcement of its "Net Zero by 2050" program does not expressly commit to disclose publicly its holdings, emissions, and impacts,<sup>147</sup> which impedes transparency. Moreover, Carlyle aims to continue investing in fossil fuels as is evident in a May 2022 interview with the *Financial Times*, where former Carlyle Chief Executive Kewsong Lee "highlighted investment in liquefied natural gas export facilities and pipelines as particular areas of opportunity for the Washington-based private equity group."<sup>148</sup> Carlyle has no readily available public policy to align its portfolio with a 1.5 degrees pathway, nor on a portfolio-wide energy transition plan, nor on integration of climate and environmental justice, or on transparency in political spending and climate lobbying, as defined in the Demands.

#### **Warburg Pincus**

**Energy Portfolio:** Warburg Pincus states that their assets under management as of June 30, 2021, was \$64 billion, of which 17 percent was invested in energy.<sup>149</sup> Based on research, the firm owns at least 29 energy companies, with 97 percent of them in fossil fuels.<sup>150</sup> More recently, Warburg Pincus reported \$85 billion in assets under management.<sup>151</sup>

**Alignment with Private Equity Climate Demands:** In March 2021, Warburg Pincus announced that it will not seek fossil fuel investments in its next buyout fund.<sup>152</sup> But in October of 2021, Warburg Pincus-owned Citizen Energy acquired a portfolio of oil and gas production assets located in Oklahoma through a \$153 million leveraged buyout.<sup>153</sup> In June 2022, Citizen Energy acquired more upstream acreage in Oklahoma.<sup>154</sup> In November 2021, Warburg Pincus and another private equity firm, Kayne Anderson, took over 62,000 net acres of upstream assets from Reliance Industries, according to Pitchbook.<sup>155</sup> According to Warburg Pincus's 2021 ESG report, it estimates that its energy holdings contribute 74 percent of its financed emissions. These are Scope 1 and Scope 2 emission estimates based on ISS ESG methodology applied to December 31, 2020 holdings.<sup>156</sup> Warburg Pincus has no readily available public policy on a portfolio-wide energy transition plan, nor on integration of climate and environmental justice, or on transparency in political spending and climate lobbying, as defined in the Demands..

#### KKR

**Energy Portfolio:** KKR reported it invests in oil and gas assets as well as infrastructure, and mineral and royalty interests. KKR formed Crescent Energy Company in 2021 as its "primary platform for pursuing upstream oil and natural gas opportunities," according to the 2021 annual report filed with the SEC.<sup>157</sup> KKR has a 24.9 percent stake in Blackgold Capital Management, a Houston, TX based energy investor.<sup>158</sup> The table

below compiles energy holdings in KKR's portfolio, totaling an estimated \$25.6 billion, which is around 5.3 percent of KKR's reported \$479 billion in AUM.<sup>159</sup> KKR owns at least 36 energy companies with 78 percent of them in fossil fuels based on research by the Private Equity Stakeholder Project.<sup>160</sup>

KKR Fund/Business	Assets (\$thousands)	Source
Blackgold Capital Management	\$126,420	24.9% stake of AUM as reported on <u>Form ADV</u>
Crescent Energy	\$2,920,000	Market Capitalization as of 05/16/2022
Infrastructure	\$20,000,000	50% of KKR infrastructure assets (\$40 billion)
Energy Income & Growth Fund II	\$1,393,000	<u>1Q22 10Q</u>
Energy Income & Growth Fund	\$880,000	<u>1Q22 10Q</u>
Natural Resources Fund	\$63,000	<u>1Q22 10Q</u>
Global Energy Opportunities	\$221,000	<u>1Q22 10Q</u>
Total	\$25,603,420	

**Alignment with Private Equity Climate Demands:** KKR has a "Climate Action Strategy" and says it integrates TCFD questions into internal reporting processes, including collecting emissions information from some portfolio companies. However, KKR has not made specific emissions reduction commitments, nor has it committed to public disclosure of fossil fuel holdings or emissions. It also intends to continue investing in conventional energy.<sup>161</sup> KKR reported in March 2022 that it oversees \$40 billion in infrastructure assets globally<sup>162</sup> and half of the 40 infrastructure assets KKR lists on its website are energy infrastructure (e.g. pipelines, power generation).<sup>163</sup> KKR has no readily available public policy to align its portfolio with a 1.5 degrees pathway, nor on disclosing fossil fuel holdings and impacts, or on a portfolio-wide energy transition plan, or on integration of climate and environmental justice, or on transparency in political spending and climate lobbying, as defined in the Demands.

#### Brookfield Asset Management/Oaktree Capital Management

Brookfield took a majority stake in Oaktree Capital Management in 2019.<sup>164</sup>

**Energy Portfolio:** Brookfield reports owning \$68 billion in renewable power and energy transition assets, \$15.4 billion in utilities, and \$24 billion in midstream assets, totaling \$107.4 billion in energy infrastructure.<sup>165</sup> That suggests Brookfield's \$107.4 billion in energy infrastructure would equal around 14.3 percent of the firm's \$750 billion in assets under management.<sup>166</sup> Oaktree does not disclose its energy holdings. Brookfield and Oaktree own around 75 energy companies, with 53 percent of them in fossil fuels.<sup>167</sup>

Brookfield	AUM (\$thousands)	Source
Renewable power and transition	\$68,000,000	Investor Presentation
Utilities (less electricity transmission, residential infrastructure businesses, and smart meter and submetering businesses)	\$15,400,000	Investor Presentation
Midstream	\$24,000,000	Investor Presentation
Oaktree	Unknown	
Total	\$107,400,000	

**Alignment with Private Equity Climate Demands:** Brookfield has said it is committed to being "Net Zero by 2050." The firm has said it will "track and report GHG emissions consistent with GHG Protocol and PCAF standards," publish decarbonization plans every five years, and will incorporate TCFD disclosures for the 2022 fiscal year. Brookfield also committed to "creat[ing] investment products aligned with net zero emissions by 2050 and facilitate increased investment in climate solutions as part of being a signatory to the Glasgow Alliance for Net Zero [GFANZ]"<sup>168</sup> However, Brookfield continues to actively pursue fossil fuel investments including Inter Pipeline<sup>169</sup> while Oaktree is expanding its fossil fuel exposure through deals such as its ongoing partnership with Diversified Energy.<sup>170</sup> Brookfield and Oaktree have no readily available public policy to align their portfolios with a 1.5 degrees pathway, nor on integration of climate and environmental justice and transparency in political spending and climate lobbying, as defined in the Demands.

#### **Ares Management**

**Energy Portfolio:** Ares reported in second quarter 2022 financial filing that 2 percent of its \$334 billion in assets under management are in the energy sector "including oil and gas exploration and midstream investments,"<sup>171</sup> which represents around \$6.7 billion in energy investments. Ares has at least 21 energy investments in its portfolio, with 76 percent in fossil fuels.<sup>172</sup>

**Downstream CO<sub>2</sub> Emissions:** Information about private equity's 2020 U.S. downstream carbon dioxide emissions (in metric tons) is from the May 2022 report "Private Equity Ownership of U.S. Power Plants: A Hidden Climate Threat."<sup>173</sup> The emissions data in the scorecard report were updated from the EIA's update of its data on April 12, 2022.

**Alignment with Private Equity Climate Demands:** According to Ares' 2021 Sustainability Report, it is planning to set an interim climate change target sometime in 2023 and its inaugural Climate Action Report 2022 "aim(s) to transparently disclose the anticipated impacts of climate change on Ares," but doesn't specify disclosures of emissions or other climate impacts from its investments.<sup>174</sup> In the meantime, Ares' Corporate Opportunities Fund VI will not invest in energy, but Ares said energy investments "will be completed outside of our sixth fund and in our dedicated energy funds going forward." Moreover, Ares' "Environmental Policy" "focuses on our internal operations" and includes tracking and publishing carbon dioxide emissions from travel for their staff.<sup>175</sup> The policy does not include the portfolio of billions of dollars in energy investments which have far greater environmental impacts. Ares has no readily available public policy to align its entire portfolio with a 1.5 degrees pathway, nor on disclosing fossil fuel holdings and impacts, or on a portfolio-wide energy transition plan, or on integration of climate and environmental justice, or on transparency in political spending and climate lobbying, as defined in the Demands.

#### **Apollo Global Management**

**Energy Portfolio:** Apollo's filing with the SEC for the first quarter of 2022 shows that across the firm's Natural Resources funds, it holds an estimated \$6.5 billion in energy assets, see table below.<sup>176</sup> This is likely an undercount of Apollo's energy holdings, given that it has exposure to energy assets across other funds, including buyout strategies.<sup>177</sup> Apollo has \$512.8 billion in assets under management,<sup>178</sup> with \$6.5 billion in energy funds, which equals around 1.3 percent of assets. Apollo had at least 19 energy investments, 74 percent are in fossil fuels as of October 2021.<sup>179</sup>

Apollo Fund	Assets (\$millions)	Source
ANRPI	\$56	<u>1Q22 10Q</u>
ANRP II	\$1,405	<u>1Q22 10Q</u>
ANRP III	\$1,008	<u>1Q22 10Q</u>
Infrastructure	\$4,050	50% of \$8.1 billion, <u>website</u>
Total	\$6,519	

**Downstream CO<sub>2</sub> Emissions:** Information about private equity's 2020 U.S. downstream carbon dioxide emissions (in metric tons) is from the May 2022 report "Private Equity Ownership of U.S. Power Plants: A Hidden Climate Threat."<sup>180</sup> The emissions data in the scorecard report were updated from the EIA's update of its data on April 12, 2022.

**Alignment with Private Equity Climate Demands:** Bloomberg reported that Apollo has pledged not to invest in fossil fuels in the \$25 billion buyout fund it is raising in 2022.<sup>181</sup> Apollo provides some reporting on greenhouse gas emissions, covering Scopes 1 and 2, but excluding Scope 3.<sup>182</sup> The reporting lacks transparency because it does not name the portfolio companies. Apollo has no readily available public policy on a portfolio-wide energy transition plan, nor on integration of climate and environmental justice, or on transparency in political spending and climate lobbying, as defined in the Demands.

#### The Blackstone Group

Energy portfolio: Blackstone had \$941 billion in AUM as of June 30, 2022.<sup>183</sup> Based on the below table of energy holdings valued at over \$34 billion, or at least 4 percent of AUM. Blackstone owns at least 30 energy companies with 83 percent of them in fossil fuels based on October 2021 research.<sup>184</sup>

Blackstone Fund/Company	Assets (\$thousands)	Source
Harvest Fund Advisors	\$7,500,000	<u>Website</u>
Energy I	\$705,759	<u>1Q22 10Q</u>
Energy II	\$4,954,452	<u>1Q22 10Q</u>
Energy III	\$2,117,059	<u>1Q22 10Q</u>
Energy Credit I	\$959,388	<u>1Q22 10Q</u>
Energy Credit II	\$1,672,130	<u>1Q22 10Q</u>
Blackstone Infrastructure Partners	\$16,212,562	See below
Total	\$34,121,350	

Blackstone Infrastructure Partners	Assets (\$thousands)	Source
Centerpoint Energy Inc.	\$217,472	<u>13F</u>
Cheniere Energy Partners LP	\$8,595,963	<u>13F</u>
FirstEnergy Corp	\$1,199,127	<u>13F</u>
Invenergy	\$3,000,000	Press release
Tallgrass Energy	\$3,200,000	Press release
Total	\$16,212,562	

**Downstream CO<sub>2</sub> Emissions:** Information about private equity's 2020 U.S. downstream carbon dioxide emissions (in metric tons) is from the May 2022 report "Private Equity Ownership of U.S. Power Plants: A Hidden Climate Threat."<sup>185</sup> Blackstone's 2020 downstream emissions data comes from AFREF's analysis of Blackstone's portfolio of four power plants owned via a joint venture with Arclight Capital Partners, accounting for 18.1 million metric tons of carbon dioxide. The emissions data in the scorecard report are from the U.S. Energy Information Administration's update of its data on April 12, 2022.

Alignment with Private Equity Climate Demands: In February 2022, *Bloomberg* reported that Blackstone would not pursue upstream investments in its next energy and credit funds.<sup>186</sup> In September 2020,

Blackstone announced an emissions reduction program "setting a goal of 15 percent carbon emissions reduction across all new investments where we control energy usage,"<sup>187</sup> but the policy does not specify how the firm intends to reduce emissions in its fossil fuel portfolio of downstream, midstream, and upstream assets. Blackstone is part of the ESG Data Convergence Project, but has not committed to publicly disclose emissions or reductions.<sup>188</sup> Blackstone has no readily available public policy on a portfolio-wide energy transition plan, nor on integration of climate and environmental justice, or on transparency in political spending and climate lobbying, as defined in the Demands.

#### TPG

**Energy Portfolio:** According to TPG's 2022 ESG report, less than 1 percent of TPG's global assets under management is currently invested in fossil fuel companies. TPG's AUM is \$127 billion,<sup>189</sup> so TPG's fossil fuel investment would be less than \$1.3 billion.<sup>190</sup> Based on research, the firm owns around 8 energy companies, with just 25 percent of them in fossil fuels.<sup>191</sup> It also has an interest in a special purpose acquisition company formed with private equity firm EnerVest in 2018 to create Magnolia Oil & Gas Corporation, which is publicly traded.<sup>192</sup>

**Alignment with Private Equity Climate Demands:** In the firm's 2022 ESG report, TPG states that it estimated its financed emissions for the past three years, in accordance with the Partnership for Carbon Accounting Principles (PCAF) standard and has conducted a qualitative scenario analysis, aligned with TCFD principles for their investment portfolios by climate risk exposure.<sup>193</sup> However, it has not released detailed results of its financed emission findings. Instead, it has only disclosed the results of the firm's "Operational Emissions" for the "firm's offices and employee activities, to better understand our emissions and identify opportunities for reduction and offsetting.<sup>194</sup> In an email to the Private Equity Stakeholder Project dated September 5, 2022, TPG stated that it "has no additional coal." However, TPG has no readily available public policy to align its portfolio with a 1.5 degrees pathway, including no coal exclusion policy for current or future funds, nor on disclosing fossil fuel holdings and impacts, or on a portfolio-wide energy transition plan, or on integration of climate and environmental justice, or on transparency in political spending and climate lobbying, as defined in the Demands.

# **APPENDIX C: SCORECARD METHODOLOGY**

This is a composite measure that collapses four indicators – three indicators regarding the fossil fuel energy exposure of private equity's major energy investors, and one indicator reflecting an assessment of each asset manager's alignment with the Climate Demands for Private Equity – into one score.<sup>195</sup> The values of the indicators were normalized, weighted, and aggregated into a single score for each private equity firm.

#### Indicators

The four indicators selected are (1) the number of fossil fuel portfolio companies; (2) the share of fossil fuels in the energy portfolio (relative to renewables); (3) the amount of carbon dioxide emissions from U.S. downstream assets in 2020;<sup>196</sup> and (4) the alignment with the Climate Demands For Private Equity. These indicators were selected by a combination of expert opinion and analysis and the limited relevant data available for the private equity industry – which operates with minimal disclosure requirements regarding its portfolio holdings.

We have three quantitative metrics allowing us to better understand the extent and impact of these firms' investments in the energy sector and in fossil fuels in particular: (1) the number of fossil fuel companies each private equity firm held in 2021, (2) the percentage of fossil fuel companies in the private equity firm's 2021 entire energy portfolio,<sup>197</sup> and (3) the amount of domestic carbon dioxide emissions reported to the U.S. Energy Information Administration in 2020 (the most recent year data was available before publication) from private equity-backed downstream assets (i.e., power plants).<sup>198</sup>

Additionally, we include a qualitative metric based on a set of 27 sub-demands that private equity asset managers should implement to reduce climate and financial risks associated with their current and future energy investments. The sub-demands are grouped into the following five primary demands: alignment with science-based climate targets to limit global warming to 1.5 degrees Celsius; disclose fossil fuel exposure, emissions, and impacts; report portfolio-wide energy transition plan; integrate climate and environmental justice; and provide transparency on political spending and climate lobbying.

#### Normalization

The values for the four indicators were normalized using a min-max method. This is a common method frequently used in composite indices, including prominent measures like the Human Development Index,<sup>199</sup> when data is expressed in different units of measurement (e.g., percentages, number of companies, metric tons). The min-max normalization converts the indicators into values ranging from 0 to 1 by subtracting the minimum possible value for that indicator and dividing it by the range of the indicator values. This enables us to compare "apples to apples." The selected minimum and maximum goal posts for each indicator are established as shown in Table 1:

Indicator	Minimum	Maximum
Number of Fossil Fuel Companies	0	42
Share Of Fossil Fuel Companies In Energy Portfolio (%)	0	100
U.S. downstream CO <sub>2</sub> emissions (metric tons)	0	18,071,233
Climate Demands for Private Equity	0	54

#### Table 1: Minimum and Maximum Values For Each Indicator

The justification for establishing zero as the minimum possible value for each of the indicators is because these companies potentially could have a fossil fuel-free energy portfolio with no carbon dioxide emissions if they chose to do so and could be completely out of alignment with the set of climate demands.

Since the potential number of fossil fuel portfolio companies and carbon dioxide emissions that each private equity firm could have is unlimited, the maximum values for those indicators are set to the largest observed values from the sample of firms in this report (42 companies and 18,071,233 metric tons, respectively). The maximum value of 100 percent is set for the share of fossil fuels in the energy portfolio because the private equity firms could have their entire energy portfolio composed of fossil fuel companies.

Before normalizing the indicator capturing alignment with the set of Climate Demands for Private Equity, we first evaluated each firm's compliance with each of our sub-27 demands under the five primary demands (see Appendix B) and scored them on the following scale (see Table 2):

#### Table 2: Scoring Rubric for Climate Demands

Climate Demand Alignment Progress	Score
No known commitments to accomplish the Private Equity Climate Demand	0
Partial policies to meet the Private Equity Climate Demand	1
Alignment with Private Equity Climate Demand	2

For the Climate Demands for Private Equity indicator, the maximum possible score is 54 (27 sub-demands multiplied by 2, indicating complete alignment with the sub-demands) and the minimum possible value is 0 (indicating zero alignment with any of the sub-demands).

Going back to the number of fossil fuel portfolio companies, the share of fossil fuels in the energy portfolio, and the amount of downstream carbon dioxide emissions, we can express the normalization as:

 $I_c^q = \frac{x_c^q - \min(x_q)}{\max(x_q) - \min(x_q)}$ 

where:

 $I_c^q$  is the normalized value of indicator q for private equity company c;  $x_c^q$  is the actual value of indicator q for company c;

 $min(x_q)$  is the minimum potential value of the indicator q across all private equity firms;

and,

 $max(x_q)$  is the maximum observed/potential value of the indicator q across all private equity firms.

For the alignment with the Climate Demands we totaled the scores across all 27 sub-demands. As opposed to the energy portfolio indicators and the amount of downstream carbon dioxide emissions indicator, in this case, a higher score would be more desirable—i.e., the higher the score, the more in compliance with the demands.<sup>200</sup> Thus, in order to maintain consistency in the directionality with the other indicators (where a larger value is harmful for the environment), the demands indicator is normalized by:

$$I_{qc}^{t} = 1 - \frac{x_{qc}^{t} - \min(x_q)}{\max(x_q) - \min(x_q)}$$

Thus, after the normalization, the indicator for alignment with the Climate Demands measures the degree to which the private equity firm is out of compliance with the demands. We refrain from value judgements about the indicators' relative importance for the composite score, and thus weigh each sub-demand equally.

#### **Aggregation and Weights**

Within the energy supply chain, which includes assets in the upstream, midstream, and downstream sectors, we only have downstream U.S. emissions data available for these private equity firms. Given that we only have a piece of the energy supply chain's emissions story for each private equity firm, we weigh the downstream emissions by 0.1, and weigh the other three metrics by 0.3 to total to 1. The normalized indicators were aggregated using a weighted arithmetic mean to arrive at the final score for each private equity company. Using the weighted arithmetic mean is both one of the most frequently used methods in the construction of composite indices,<sup>201</sup> and it offers us the advantage of avoiding scores of zero.<sup>202</sup>

The weighted arithmetic mean is defined as the sum of the numerical values of each normalized and weighted indicator, divided by the sum of the weights. We can express this as:

$$Y_{C} = \frac{((U_{c} * 0.3) + (V_{c} * 0.1) + (W_{c} * 0.3) + (X_{c} * 0.3))}{(0.3 + 0.1 + 0.3 + 0.3)}$$

where:

 $Y_c$  is the total aggregate score for private equity company c; and  $U_c$ ;  $V_c$ ;  $W_c$ ;  $X_c$  are the normalized values for each indicator (the alignment with the demands, U.S. downstream carbon dioxide emissions, the number of fossil fuel companies, share of fossil fuels in portfolio, respectively).

Here are the results of the aggregation process for each private equity firm (see Table 3):

#### Table 3: Private Equity Aggregated Score And Grade

Private Equity Firms	SCORES (weighted arithmetic mean)	GRADE
Carlyle / NGP	0.88	F
Warburg Pincus	0.78	D
KKR	0.73	D
Brookfield / Oaktree	0.73	D
Ares	0.69	D
Apollo	0.63	D
Blackstone	0.62	D
TPG	0.38	В

The scale for the grade is as follows (see Table 4):

Table 4: Private Equity Score Ranking Scale

Ranking Scale
F = > 0.80
D = 0.61 - 0.80
C = 0.41 - 0.60
B = 0.21 - 0.40
A = 0 - 0.20

#### **Carlyle/NGP Example**

To better understand the scorecard methodology, here is an example of how the score for Carlyle/NGP was calculated.

#### 1. Table 5 shows where Carlyle/NGP stands on the four indicators:

#### Table 5: Carlyle/NGP's Assessed On Four Indicators

Number of Fossil Fuel Companies (as of October 2021)		% Of Fossil Fuels In Energy Portfolio (as of October 2021)	2020 U.S. downstream emissions (MT)	Climate Demand Alignment (as of August 2022)			
	42	76.0%	10,808,362	1			

Carlyle/NGP made partial progress on only one private equity climate sub-demand: "Disclose Scope 1, 2, and 3 (as defined by the GHG Protocol and the Partnership for Carbon Accounting Financials [PCAF]) in absolute and intensity terms as well as other climate impacts, environmental violations and litigation, and climate-related community impacts for its entire portfolio." Thus, it receives a score of 1 out of a maximum of 54. (See complete list of demands in Appendix B)

#### 2. Each indicator was then normalized, according to the process outlined above.

So, for instance, Carlyle/NGP's U.S. downstream emissions in 2020 is 10,808,362 MT. But the maximum reported for that year within the sample is 18,071,233 by Blackstone. Thus, Carlyle/NGP's normalized emissions value is as follows:

Downstream Emission Normalized Value =  $\frac{10,808,362 - 0}{18,071,233 - 0} = 0.60$ 

The normalized values for each of Carlyle/NGP's indicators are as follows (see Table 6):

Number of Fossil Fuel	% Of Fossil Fuels In Energy	2020 U.S. Downstream	Climate Demand Alignment				
Companies	Portfolio	Emissions	(as of August 2022)				
1.00	0.76	0.60	0.98				

#### Table 6: Normalized Values For Each Carlyle/NGP Indicator

3. In the aggregation process, a weighted arithmetic mean of the normalized indicators is calculated, in which the downstream emissions are weighed a third as much as the other three indicators:

 $Y_{Carlyle} = \frac{((U_c * 0.3) + (V_c * 0.1) + (W_c * 0.3) + (X_c * 0.3))}{(0.3 + 0.1 + 0.3 + 0.3)}$  $Y_{Carlyle} = \frac{((0.98 * 0.3) + (0.6 * 0.1) + (1 * 0.3) + (0.76 * 0.3))}{(0.3 + 0.1 + 0.3 + 0.3)} = 0.88$ 

 $Y_{Carlyle}$  is the total aggregate score for the private equity firms The Carlyle Group and NGP; and  $U_c; V_c; W_c; X_c$  are the normalized values

(the alignment with the demands, U.S. downstream carbon dioxide emissions, the number of fossil fuel companies, share of fossil fuels in energy portfolio, respectively).

# **APPENDIX D: CLIMATE DEMANDS FOR PRIVATE EQUITY SCORING RUBRIC**

Climate Demands For Private Equity	Carlyle/ NGP	Brookfield/ Oaktree	Blackstone	KKR	Warburg Pincus	Apollo	Ares	TPG		
1. ALIGN WITH SCIENCE-BASED CLIMATE TARGETS TO LIMIT GLOBAL WARMING TO 1.5°C										
Immediately discontinue the financing of or investment in new fossil fuel companies or projects throughout the value chain.	No	No	<u>Partial</u>	No	<u>Partial</u>	Partial	<u>Partial</u>	No		
Cease flaring and venting by 2025.	No	No	No	No	No	No	No	No		
Commit to achieve a fossil-free energy portfolio by 2030.	No	No	No	No	No	No	No	No		
Phase out existing coal power investments by 2030 in OECD countries, with all coal investments in other countries following suit by 2040.	No	No	No	No	No	No	No	Partial <sup>203</sup>		
Begin decommissioning oil and gas power plants and pipelines, and capping exploration and production infrastructure, and other related fossil fuel assets no later than 2030.	No	No	No	No	No	No	No	No		

2. DISCLOSE FOSSIL FUEL EXPOSURE, EMISSION	IS, AND IM	PACTS						
Disclose all oil, natural gas, and coal assets in the asset manager's equity and credit portfolios, and financial estimates and assumptions around future commodity prices, cash flows, asset impairment, and asset retirement obligations.	No	No	No	No	No	No	No	No
Disclose Scope 1, 2, and 3 (as defined by the GHG Protocol and the Partnership for Carbon Accounting Financials [PCAF]) in absolute and intensity terms as well as other climate impacts, environmental violations and litigation, and climate-related community impacts for its entire portfolio.	<u>Partial</u>	<u>Partial</u>	<u>Partial</u>	No	<u>Partial</u>	Partial	No	Partial
Report gross emissions, avoided emission carbon credits, and carbon removal credits separately from one another, without netting. If carbon offsets are purchased, they should be reported separately from greenhouse gas emissions.	No	No	No	No	No	No	No	No
								200
3. REPORT A PORTFOLIO-WIDE ENERGY TRANS		N						
Report progress with implementing climate transition plan throughout the firm's entire portfolio annually, and any adjustments that have been made to original assumptions about the availability of technologies and market conditions.	No	<u>Partial</u>	No	No	No	No	No	No
Report a detailed description of GHG emissions reductions targets and metrics on progress	No	No	No	No	No	No	No	No

toward those targets. Report capital expenditures due to climate No No No No No No No No impacts and for transition activities. Commit to increase clean energy investments, <u>Partial</u> No No No No No No No year over year. Disclose plan to reduce use of carbon offsets to No No No No No No No No zero by 2025.

Climate Demands For Private Equity	Carlyle/ NGP	Brookfield/ Oaktree	Blackstone	KKR	Warburg Pincus	Apollo	Ares	TPG
Disclose details about the procurement and holding of offsets as well as the GHG emissions reductions achieved and anticipated from these offsets projects.	No	No	No	No	No	No	No	No
Disclose whether and to what extent the private equity firm and its portfolio company has purchased offsets over the reporting period and retired offsets as compensation for any gross emissions during the reporting period.	No	No	No	No	No	No	No	No
Disclose the registry number and details of the projects underlying any carbon offsets acquired, and whether emissions were purportedly reduced, avoided, or removed. For removal, indicate the expected time period of emissions storage.	No	No	No	No	No	No	No	No
While offsets are in use, state all assumptions used to calculate the GHG emissions changes.	No	No	No	No	No	No	No	No
Disclose private equity firm level and portfolio company level use of carbon dioxide removal, carbon capture utilization and storage (CDR/ CCUS), and related technologies.	No	No	No	No	No	No	No	No
Disclose plans to reduce investment in CDR/ CCUS and instead plan to meet GHG targets through bonafide emission reductions.	No	No	No	No	No	No	No	No
Disclose a comprehensive climate risk management strategy under a 1.5 degrees Celsius global warming scenario consistent with science-based emissions targets.	No	No	No	No	Νο	No	No	No
Disclose a comprehensive climate risk management strategy for scenarios above 1.5 degrees Celsius, including at least 2 degrees Celsius and 3 degrees Celsius, assuming both orderly and disorderly transition scenarios, as outlined by the Network for Greening the Financial System.	No	No	No	No	No	No	No	No

4. INTEGRATE CLIMATE AND ENVIRONMENTAL JUSTICE									
Establish robust due diligence, verification, and grievance redress mechanisms to ensure that all human rights are respected, particularly the rights of Indigenous peoples, including their rights to their water and lands and the right to Free, Prior, and Informed Consent, as articulated in the UN Declaration on the Rights of Indigenous Peoples, and ensure that ongoing community impacts are monitored.	No								
Prohibit financing or investment in any company or asset that involves the degradation or loss of natural forests or other natural ecosystems, with particular emphasis on peatlands, or any company that fails to comply with a No Deforestation, No Peatland, No Exploitation (NDPE) policy at a corporate group level.	No								
Eliminate deforestation, forest conversion, and associated human rights abuses from their portfolios by 2025.	No								

Climate Demands For Private Equity	Carlyle/ NGP	Brookfield/ Oaktree	Blackstone	KKR	Warburg Pincus	Apollo	Ares	TPG
Engage with impacted communities to develop a just transition program both for the workforces facing dislocation from the energy transition, and communities impacted by current fossil fuel holdings to ensure remediation of health and environmental harms, including land use changes and deforestation, infringement of land rights and the rights of Indigenous peoples, natural resource extraction, disruption to local economies, air and water pollution, harm to public health and safety, and worker dislocation.	No	No	No	No	No	No	No	No
	1.53			2			~	1.1

5. PROVIDE TRANSPARENCY ON POLITICAL SPENDING AND CLIMATE LOBBYING									
Annually disclose the political spending and climate lobbying of the asset manager and its executives; its portfolio companies and their executives; of the associations, alliances, coalitions or think tanks of which it is a member or to which it provides support.	No	No	No	Νο	No	No	Νο	No	
Provide transparency on the asset manager's alignment with the Global Standard on Responsible Corporate Climate Lobbying.	No								

# **ENDNOTES**

- National Centers for Environmental Information, "Billion-Dollar Weather and Climate Disasters", National Oceanic and Atmospheric Administration, Accessed August 16, 2022. https://www.ncei.noaa.gov/access/billions/ time-series
- 2. Lim, D. and Brooke, D., "The Boom in Private Markets Has Transformed Finance, Here's How," Bloomberg, June 13, 2022 https://www.bloomberg.com/news/articles/2022-06-14/how-the-boom-in-private-markets-haschanged-finance-quicktake
- 3. Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021, https://pestakeholder.org/wp-content/uploads/2021/10/PESP\_SpecialReport\_ ClimateCrisis\_Oct2021\_Final.pdf; Americans for Financial Reform Education Fund "Private Equity Ownership of U.S. Power Plants: A Hidden Climate Threat," May 2022, https://ourfinancialsecurity.org/2022/05/report-privateequity-ownership-of-u-s-power-plants-a-hidden-climate-threat/
- Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021, https://pestakeholder.org/wp-content/uploads/2021/10/PESP\_SpecialReport\_ ClimateCrisis\_Oct2021\_Final.pdf
- 5. "Who buys the dirty energy assets public companies no longer want?", The Economist, February 12, 2022, https://www.economist.com/finance-and-economics/who-buys-the-dirty-energy-assets-public-companies-nolonger-want/21807594
- 6. "IPCC Sixth Assessment Report: Climate Change 2022: Impacts, Adaptation and Vulnerability, UN IPCC, 2022, https://www.ipcc.ch/report/ar6/wg2/; Kelly, Stephanie, "About half of U.S. oil pipeline space is empty after boom time building spree," Reuters, December 15, 2021, https://www.reuters.com/markets/commodities/about-half-us-oil-pipeline-space-is-empty-after-boom-time-building-spree-2021-12-16/; Lindwall, Courtney, "IPCC Climate Change Reports: Why They Matter to Everyone on the Planet," NRDC, July 20, 2022, https://www.nrdc.org/stories/ipcc-climate-change-reports-why-they-matter-everyone-planet#sec-latest
- 7. The private equity firms in this report's sample are some of the largest buyout firms with energy exposure with at least \$50 billion of assets under management.
- 8. See page 5 of this report.
- 9. Carlyle's AUM is \$376 billion Carlyle, "Our Firm," Accessed August 16, 2022, https://www.carlyle.com/our-firm; Brookfield's AUM is \$750 billion - Brookfield, "Pioneers of long-term impact," Accessed August 16, 2022, https:// www.brookfield.com/; Blackstone's AUM is \$941 billion - As of June 30, 2022, Blackstone, "The Firm," Accessed August 16, 2022, https://www.blackstone.com/the-firm/; KKR's AUM is \$479 billion - KKR, "KKR Today - As of March 31, 2022," Accessed August 16, 2022, https://www.kkr.com/kkr-today; Warburg Pincus's AUM is \$85 billion - Warburg Pincus, "Warburg Pincus Homepage - As of June 30, 2022," Accessed August 16, 2022 https:// warburgpincus.com/; Apollo's AUM is \$512.8 - Apollo Global Management, "Form 10-Q", March 31, 2022, https:// www.sec.gov/ix?doc=/Archives/edgar/data/1858681/000185868122000029/apo-20220331.htm; TPG's AUM is \$127 billion - TPG, "TPG At A Glance," Accessed August 16, 2022, https://www.tpg.com/
- 10. Please find additional details and references for each scorecard indicator in the Appendices. TPG's alignment with science based climate targets to limit global warming to 1.5 degrees Celsius was based on an email to Private Equity Stakeholder Project dated September 5, 2022, in which TPG stated that it has "no additional coal." But TPG has made no readily available coal exclusion policy for current or future funds.
- McKinsey & Company, "Private Markets Rally to New Heights: McKinsey Global Private Markets Review 2022", March 2022, https://www.mckinsey.com/industries/private-equity-and-principal-investors/our-insights/ mckinseys-private-markets-annual-review#nga\_section\_header\_main\_0\_universal\_0
- 12. Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021, https://pestakeholder.org/wp-content/uploads/2021/10/PESP\_SpecialReport\_ ClimateCrisis\_Oct2021\_Final.pdf; Americans for Financial Reform Education Fund, "Private Equity Ownership of

U.S. Power Plants: A Hidden Climate Threat," May 2022, https://ourfinancialsecurity.org/2022/05/report-private-equity-ownership-of-u-s-power-plants-a-hidden-climate-threat/

- 13. Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021, https://pestakeholder.org/wp-content/uploads/2021/10/PESP\_SpecialReport\_ ClimateCrisis\_Oct2021\_Final.pdf
- 14.MacArthur, H., et.al., "The Private Equity Market in 2020: Escape from the Abyss", Bain & Company, March 1, 2021<br/>https://www.bain.com/insights/the-private-equity-market-in-2020/; US PE Breakdown, Pitchbook. Annual 2021,<br/>See page 33. https://files.pitchbook.com/website/files/pdf/2021\_Annual\_US\_PE\_Breakdown.pdf
- 15. Private equity asset managers would not be alone in meeting a more immediate timeline. Last year, La Banque Postale a major French bank with nearly \$902 billion in assets committed to suspending support for all companies expanding oil and gas and exiting oil and gas financing entirely by 2030. "La Banque Postale Is Stepping Up Its Decarbonisation Strategy," La Banque Postale, 13 October 2021, https://www.lapostegroupe.com/en/news/la-banque-postale-is-stepping-up-its-decarbonisation-strategy; "French Bank La Banque Postale Quits Oil & Gas, Sets International Precedent," Reclaim Finance, 14 October 2021, https://reclaimfinance.org/site/en/2021/10/14/french-bank-la-banque-postale-quits-oil-gas-sets-international-precedent/.
- Marsh, Alastair, "Blackstone, Apollo Among Holdouts Snubbing New Finance Club," Bloomberg, November 27, 2021, https://www.bloomberg.com/news/articles/2021-11-28/blackstone-among-key-holdouts-snubbing-new-club-in-big-finance
- 17. "Who buys the dirty energy assets public companies no longer want?", The Economist, February 12, 2022, https://www.economist.com/finance-and-economics/who-buys-the-dirty-energy-assets-public-companies-nolonger-want/21807594
- 18. The Economist, "Private markets have grown exponentially," February 23, 2022, https://www.economist.com/ special-report/2022/02/23/private-markets-have-grown-exponentially
- 19. Gagliardi, Margherita, "Without Appropriate Bonding Incentives, Taxpayers May Be Forced to Pay Billions in Clean up Costs," Carbon Tracker Initiative, July 15, 2021, https://carbontracker.org/without-appropriate-bondingincentives-taxpayers-may-be-forced-to-pay-billions-in-clean-up-costs/. Cambridge Associates, "Real Asset Dynamics: PE Energy," May 2020, pg. 4 https://www.cambridgeassociates.com/insight/real-asset-dynamics-peenergy/
- 20. International Energy Agency, "Net Zero by 2050: A Roadmap for the Energy Sector," May 2021, https://www.iea. org/reports/net-zero-by-2050.
- 21. United National Intergovernmental Panel on Climate Change, "Global Warming of 1.5°C: Headline Statements from the Summary for Policymakers," 2019, https://www.ipcc.ch/sr15/chapter/spm/.
- 22. Carrington, Damian, "Climate limit of 1.5C close to being broken, scientists warn," The Guardian, May 9, 2022, https://www.theguardian.com/environment/2022/may/09/climate-limit-of-1-5-c-close-to-being-brokenscientists-warn; World Meteorological Organization, "Global Annual to Decadal Climate Update," 2022, https:// hadleyserver.metoffice.gov.uk/wmolc/WMO\_GADCU\_2022-2026.pdf.
- 23. The private equity firms in this report's sample are some of the largest buyout firms with energy exposure with at least \$50 billion of assets under management.
- 24. The eight firms' energy portfolios in Table 1 combined equal \$216 billion. In 2021 five of the world's top banks lent \$220 billion in fossil fuel financing - JPMorgan Chase, Wells Fargo, Citi, RBC, and Bank of America, as per Rainforest Action Network's "Banking on Climate Chaos 2022" report, https://www.bankingonclimatechaos.org/.
- 25. NGP Energy Capital Management, "Form ADV Part 2A Disclosure Brochure", March 30, 2021, https://files. adviserinfo.sec.gov/IAPD/Content/Common/crd\_iapd\_Brochure.aspx?BRCHR\_VRSN\_ID=699522; The Carlyle Group Inc., "Form 10-K", December 31, 2021, page 60, https://www.sec.gov/ix?doc=/Archives/edgar/data/000152716 6/000152716622000007/cg-20211231.htm
- 26. Warburg Pincus, "Creating a network effect: Environmental, Social and Governance Report," 2021, pp. 7-8. https://warburgpincus.com/wp-content/uploads/2021/08/Warburg-Pincus\_2021-ESG-Report.pdf
- 27. The Carlyle Group Inc., "Form 10-K", December 31, 2021, page 60, https://www.sec.gov/ix?doc=/Archives/edgar/ data/0001527166/000152716622000007/cg-20211231.htm; The Carlyle Group Inc., "Form 10-K", December 31, 2021, page 60, https://www.sec.gov/ix?doc=/Archives/edgar/data/0001527166/000152716622000007/cg-20211231.htm
- 28. TPG Capital, "TPG's Annual ESG Review: Environmental, Social, and Governance Performance," 2022, https://cms. tpg.com/wp-content/uploads/2022/08/TPG-ESG-Report-2022\_FINAL.pdf
- 29. United National Intergovernmental Panel on Climate Change, "IPCC Sixth Assessment Report: Climate Change 2022: Impacts, Adaptation and Vulnerability, 2022, https://www.ipcc.ch/report/ar6/wg2/; Kelly, Stephanie, "About

half of U.S. oil pipeline space is empty after boom time building spree," Reuters, December 15, 2021, https:// www.reuters.com/markets/commodities/about-half-us-oil-pipeline-space-is-empty-after-boom-time-buildingspree-2021-12-16/; Lindwall, Courtney, "IPCC Climate Change Reports: Why They Matter to Everyone on the Planet," NRDC, July 20, 2022, https://www.nrdc.org/stories/ipcc-climate-change-reports-why-they-mattereveryone-planet#sec-latest

- 30. See Appendix B for details on each private equity firm. The absence of regulatory guidance on reporting energy investments and climate impacts means that the information available is not standardized between private equity asset managers. Similarly, there is no single regulatory standard for disclosing climate commitments, either for publicly listed or privately held companies, and therefore each asset manager may develop its own climate policies that are not standardized.
- 31. Americans for Financial Reform Education Fund, "Private Equity Ownership of U.S. Power Plants: A Hidden Climate Threat," May 2022, https://ourfinancialsecurity.org/2022/05/report-private-equity-ownership-of-u-s-power-plants-a-hidden-climate-threat/
- 32. The energy portfolios for each firm was based on Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021 https://pestakeholder.org/wp-content/ uploads/2021/10/PESP\_SpecialReport\_ClimateCrisis\_Oct2021\_Final.pdf. The energy holdings and percent fossil fuels were updated Sept. 9, 2022 based on a review of emailed responses from several of the private equity firms.
- 33. NGP Energy Capital Management, "Form ADV Part 2A Disclosure Brochure", March 30, 2021, https://files. adviserinfo.sec.gov/IAPD/Content/Common/crd\_iapd\_Brochure.aspx?BRCHR\_VRSN\_ID=699522; The Carlyle Group Inc., "Form 10-K", December 31, 2021, page 60, https://www.sec.gov/ix?doc=/Archives/edgar/data/00015271 66/000152716622000007/cg-20211231.htm
- 34. Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021https://pestakeholder.org/wp-content/uploads/2021/10/PESP\_SpecialReport\_ClimateCrisis\_ Oct2021\_Final.pdf
- 35. Carlyle, "Our Firm," Accessed August 16, 2022, https://www.carlyle.com/our-firm
- 36. Americans for Financial Reform Education Fund, "Private Equity Ownership of U.S. Power Plants: A Hidden Climate Threat," May 2022, https://ourfinancialsecurity.org/2022/05/report-private-equity-ownership-of-u-s-power-plants-a-hidden-climate-threat/. Blackstone's 2020 downstream emissions data comes from AFREF's analysis of Blackstone's portfolio of four power plants owned via a joint venture with Arclight Capital Partners, accounting for 18.1 million metric tons of carbon dioxide The emissions data in the scorecard report are from the U.S. Energy Information Administration's update of its data on April 12, 2022.
- 37. The Carlyle Group, "Carlyle Sets Net Zero by 2050 and Near-Term Climate Goals for Meaningful, Immediate Action with a Focus on Real Emissions Reductions," February. 1, 2022, https://www.carlyle.com/media-room/ news-release-archive/carlyle-sets-net-zero-2050-and-near-term-climate-goals
- 38. Carlyle Group, "Task Force on Climate-related Financial Disclosures Report," 2021, page 9, https://www.carlyle. com/sites/default/files/2021\_Carlyle\_TCFD-Report\_01.12.pdf.
- 39.Based on PESP's analysis from pages 6, 34, and 87 of the Carlyle Group's 2022 Second Quarter 10-Q, June 30,<br/>2022, https://www.sec.gov/ix?doc=/Archives/edgar/data/0001527166/000152716622000036/cg-20220630.htm
- 40. The Carlyle Group, "The Industry's First-Ever Partnership to Standardize ESG Reporting", March 10, 2022, https://www.carlyle.com/global-insights/private-equity-industrys-esg-data-convergence-project
- 41. The Carlyle Group, "Carlyle Sets Net Zero by 2050 and Near-Term Climate Goals for Meaningful, Immediate Action with a Focus on Real Emissions Reductions," February 1, 2022, https://www.carlyle.com/media-room/ news-release-archive/carlyle-sets-net-zero-2050-and-near-term-climate-goals
- 42. Gara, Antoine, "Carlyle merges energy and infrastructure units ahead of investment push," Financial Times, May 12, 2022, https://www.ft.com/content/29037912-f329-463b-9647-92a63d5816c2.
- 43. Oaktree Capital, "Brookfield Asset Management Completes Acquisition of 61.2% of Oaktree Capital Management", September 30, 2019, https://ir.oaktreecapital.com/news-releases/news-release-details/brookfieldasset-management-completes-acquisition-612-oaktree
- Warburg Pincus, "Finding Growth", Accessed August 16, 2022, https://warburgpincus.com/, AUM as of June 30, 2022.
- 45. Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021https://pestakeholder.org/wp-content/uploads/2021/10/PESP\_SpecialReport\_ClimateCrisis\_ Oct2021\_Final.pdf

- 46. "Warburg Plans \$15 Billion Buyout Fund That Shuns Fossil Fuels," Bloomberg Law, March 10, 2021, https://news. bloomberglaw.com/esg/warburg-plans-15-billion-buyout-fund-that-shuns-fossil-fuels?utm\_source=rss&utm\_ medium=CTNW&utm\_campaign=00000178-1d87-d55c-af79-1de789d40003
- 47. Citizen Energy, "Citizen Energy Expands Mid-Continent Footprint with Gas-Rich Bolt-On Acquisition," BusinessWire, October 11, 2021, https://www.businesswire.com/news/home/20211011005686/en/Citizen-Energy-Expands-Mid-Continent-Footprint-with-Gas-Rich-Bolt-On-Acquisition
- 48. Citizen Energy, "Citizen Energy Continues Mid-Continent Success with Accretive Consolidation," BusinessWire, June 29, 2022, https://www.businesswire.com/news/home/20220629005976/en/Citizen-Energy-Continues-Mid-Continent-Success-with-Accretive-Consolidation
- 49. Mendoza, Amanda, "Warburg Pincus Continues with Oil and Gas Acquisitions Despite Announcement to Move Away From Fossil Fuel Investments," Private Equity Stakeholder Project, December 16, 2021, https:// pestakeholder.org/news/warburg-pincus-continues-with-oil-and-gas-acquisitions-despite-announcement-tomove-away-from-fossil-fuel-investments/
- 50. Marshall, Nancy, "Warburg Pincus and The Heritage Group Invest in ClimeCo to Expand Global Decarbonization Platform," Climeco, April 5, 2022, https://climeco.com/warburg-pincus-and-the-heritage-group-invest-inclimeco-to-expand-global-decarbonization-platform/
- 51. "Veteran Renewable Natural Gas Management Team Forms Viridi Energy with Equity Commitment from Warburg Pincus," PR Newswire, June 2, 2022, https://www.prnewswire.com/news-releases/veteranrenewable-natural-gas-management-team-forms-viridi-energy-with-equity-commitment-from-warburgpincus-301560125.html
- 52. Hodgson, Camilla and Billy Nauman, "Carbon offsets: a license to pollute or a path to net zero emissions?", Financial Times, August 30, 2022, https://www.ft.com/content/cfaa16bf-ce5d-4543-ac9c-9d9234e10e9d
- 53. Cushing, B., Arkush, D., Martin, A., and Kostyack, J., "Comment to the U.S. Securities and Exchange Commission: Offsets Disclosures in Climate Risk Disclosure Rule," Sierra Club, Public Citizen, Americans for Financial Reform Education Fund, Kostyack Strategies, February 2022, https://www.sierraclub.org/sites/www.sierraclub.org/files/ blog/Offsets%20Disclosures%20in%20Climate%20Risk%20Disclosure%20Rule.pdf (See Appendix A)
- 54. Renewable natural gas (RNG) is a methane gas, which is chemically identical to fossil natural gas, but it is sourced from decaying feedstocks. Nearly all RNG comes from landfills, sewage treatment plants, or livestock manure ponds from large industrial farms. As microbes break down waste, they produce gasses that contain methane, which can be captured, processed and transported into a pipeline. Feinstein, Laura and Eric de Place, "The Four Fatal Flaws of Renewable Natural Gas," Sightline Institute, March 9, 2021, https://www.sightline.org/2021/03/09/the-four-fatal-flaws-of-renewable-natural-gas/.
- 55. Warburg Pincus, "Create a network effect: Environmental, Social, & Governance Report," 2021, pg. 20, https:// warburgpincus.com/wp-content/uploads/2021/08/Warburg-Pincus\_2021-ESG-Report.pdf
- 56. As of March 31, 2022, KKR, "KKR Today," Accessed August 11, 2022, https://www.kkr.com/kkr-today
- 57. The energy portfolio for KKR was based on Giachino, A. and Mehta-Neugebauer, R.,"Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021 https://pestakeholder.org/wp-content/uploads/2021/10/PESP\_SpecialReport\_ClimateCrisis\_Oct2021\_Final.pdf. The energy holdings, fossil fuel percentage, and climate commitments were updated Sept. 9, 2022 based on a review of emailed responses from KKR.
- 58. KKR, "KKR Closes \$17 Billion Global Infrastructure Fund," BusinessWire,March 14, 2022. https://www. businesswire.com/news/home/20220314005151/en/KKR-Closes-17-Billion-Global-Infrastructure-Fund
- 59. Seeger, Elizabeth, "KKR's Climate Action Strategy: Managing Risks and Seizing Opportunities," KKR, November 9, 2021, https://www.kkr.com/global-perspectives/kkr-blog/kkrs-climate-action-strategy
- 60. KKR & Co, "Form 10K," December 31, 2021, pg. 17, https://www.sec.gov/ix?doc=/Archives/edgar/ data/1404912/000140491222000004/kkr-20211231.htm.
- 61. Crescent Energy, "Redefining Smart Energy Investing," Accessed August 11, 2022, https://www.crescentenergyco. com/
- 62. Giachino, Alyssa, "KKR's Fracking Footprint Expands as KKR's Contango Buys Drilling Assets Sold by ConocoPhillips", Private Equity Stakeholder Project, July 15, 2021, https://pestakeholder.org/kkrs-frackingfootprint-expands-buys-drilling-assets-sold-by-conocophillips/
- 63. Raval, Anjli, "A \$140bn asset sale: the investors cashing in on Big Oil's push to net zero," Financial Times, July 5, 2021, https://www.ft.com/content/4dee7080-3a1b-479f-a50c-c3641c82c142?utm\_source=newsletter&utm\_medium=email&utm\_campaign=newsletter\_axiosgenerate&stream=top

- 64. Reuters, "Crescent Energy buys EP Energy's Uinta oil and gas assets for \$815 mln," February 16, 2022, https://www.reuters.com/business/energy/crescent-energy-buys-ep-energys-uinta-oil-gas-assets-815-mln-2022-02-16/
- 65. Rastello, Sandrine, "Canadian pipeline segment faces delay amid indigenous protests," Bloomberg, February 22, 2020 https://www.bloomberg.com/news/articles/2020-02-22/canadian-pipeline-segment-faces-delay-amid-indigenous-protests
- 66. "Wet'suwet'en chiefs arrive in Winnipeg to raise awareness about their battle for land sovereignty," CBC, August 9, 2022 https://www.cbc.ca/news/canada/manitoba/wetsuweten-hereditary-chiefs-winnipeg-1.6546691
- 67. Gelles, David, "How Republicans Are 'Weaponizing' Public Office Against Climate Action," The New York Times, April 5, 2022, https://www.nytimes.com/2022/08/05/climate/republican-treasurers-climate-change.html
- 68. KKR listed as "Bronze Sponsor of SFOF" on January 28, 2022, Internet Archive, Accessed August 10, 2022, https:// web.archive.org/web/20220128234550/https://sfof.com/donor-partners/; KKR listed as a "Friend of SFOF" on August 6, 2022, Internet Archive, Accessed August 10, 2022, https://web.archive.org/web/20220806090059/ https://sfof.com/donor-partners/.
- 69. KKR's name removed from the SFOF sponsor webpage four days (August 9, 2022) after the New York Times investigation on SFOF was published on August 5, 2022, Internet Archive, Accessed August 10, 2022, https://web.archive.org/web/20220809101714/https://sfof.com/donor-partners/
- 70. Brookfield, "Pioneers of long-term impact," Accessed August 16, 2022, https://www.brookfield.com/
- 71. Oaktree Capital, "Brookfield Asset Management Completes Acquisition of 61.2% of Oaktree Capital Management", September 30, 2019, https://ir.oaktreecapital.com/news-releases/news-release-details/brookfieldasset-management-completes-acquisition-612-oaktree
- 72. The energy portfolio for Brookfield/Oaktree was based on Giachino, A. and Mehta-Neugebauer, R.,"Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021 https://pestakeholder.org/wp-content/uploads/2021/10/PESP\_SpecialReport\_ClimateCrisis\_Oct2021\_Final.pdf. The energy holdings and percent fossil fuels were updated Sept. 9, 2022 based on a review of emailed responses from Brookfield.
- 73. Brookfield, "Brookfield's Net-Zero Commitment," Accessed August 10, 2022, https://www.brookfield.com/ responsibility/brookfields-net-zero-commitment
- 74. Brookfield, "Brookfield's Net-Zero Commitment," Accessed August 10, 2022, https://www.brookfield.com/ responsibility/brookfields-net-zero-commitment and Net Zero Asset Managers Signatories https://www. netzeroassetmanagers.org/signatories/
- 75. Inter Pipeline, "Brookfield Infrastructure Closes Strategic Acquisition of Inter Pipeline", October 28, 2021, https:// interpipeline.com/news-releases/brookfield-infrastructure-closes-strategic-acquisition-of-inter-pipeline/; Deveau, S. and Tuttle, R. "Brookfield Wins Inter Pipeline Backing for \$6.8 Billion Deal", Bloomberg, July 27, 2021 https://www.bloomberg.com/news/articles/2021-07-28/brookfield-wins-inter-pipeline-s-backing-for-6-8-billiondeal
- 76. Reuters, "Blackstone sells about 40% stake in Cheniere's limited partnership", August 24, 2020, https://www. reuters.com/article/us-cheniere-eng-stake-blackstone-group/blackstone-sells-about-40-stake-in-cheniereslimited-partnership-idUSKBN25K1LZ
- 77. Reuters, "Blackstone sells about 40% stake in Cheniere's limited partnership", August 24, 2020, https://www. reuters.com/article/us-cheniere-eng-stake-blackstone-group/blackstone-sells-about-40-stake-in-cheniereslimited-partnership-idUSKBN25K1LZ
- 78. Barbee, D. and Gas Investor, "Diversified Gas & Oil Enters \$1 Billion Acquisition Partnership with Oaktree Capital", Hart Energy, November 10, 2020, https://www.hartenergy.com/exclusives/diversified-gas-oil-enters-1-billionacquisition-partnership-oaktree-capital-190834; Mider, Z. and Adams-Heard, R. "An Empire of Dying Wells: Old oil and gas sites are a climate menace. Meet the company that owns more of America's decaying wells than any other." Bloomberg Green, October 12, 2021, https://www.bloomberg.com/features/diversified-energy-naturalgas-wells-methane-leaks-2021/
- 79. Willkie Farr & Gallagher LLP, "Oaktree Capital Management Enters into Definitive Agreement to Acquire Non-Operated Interests in Oklahoma Mid-Continent Assets in Co-Investment with Diversified Energy Company", October 11, 2021, https://www.willkie.com/news/2021/10/oaktree-capital-management
- 80. Ares Management Corporation, "About Ares Management Corporation," Accessed August 16, 2022, https://www. aresmgmt.com/about-ares-management-corporation, AUM as of June 30, 2022.
- 81. Ares Management, "2nd Quarter 2022, Form 10-Q," pg. 60https://www.sec.gov/ix?doc=/Archives/edgar/ data/1176948/000162828022021187/ares-20220630.htm
- 82. The energy portfolio for Ares was based on Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels

the Climate Crisis", Private Equity Stakeholder Project, October 2021 https://pestakeholder.org/wp-content/ uploads/2021/10/PESP\_SpecialReport\_ClimateCrisis\_Oct2021\_Final.pdf. The energy holdings and percent fossil fuels scorecard were updated Sept. 9, 2022 based on a review of emailed responses from Ares.

- 83. Americans for Financial Reform Education Fund, "Private Equity Ownership of U.S. Power Plants: A Hidden Climate Threat," May 2022, https://ourfinancialsecurity.org/2022/05/report-private-equity-ownership-of-u-s-power-plants-a-hidden-climate-threat/
- 84. Ares Management Q2 2020 earnings call, https://www.fool.com/earnings/call-transcripts/2020/08/05/aresmanagement-corporation-ares-q2-2020-earnings.aspx
- 85. Ares Management, "Accelerating Our Impact: Sustainability Report," 2021, https://www.aresmgmt.com/sites/ default/files/2022-06/Ares\_Sustainability\_Report-vF-2021F.pdf and TCFD Climate Action Report 2022, https:// www.aresmgmt.com/sites/default/files/2022-06/2022-Ares-TCFD-Climate-Action-Report\_vFinal628.pdf
- 86. Ares Management, "Ares Environmental Policy," March 2021, https://www.aresmgmt.com/sites/default/ files/2021-05/2021-02-26\_Environmental\_Policy\_vF.pdf
- 87. Willmer, Sabrina, "Apollo to Shun Fossil-Fuel Investments in Next Buyout Fund", Bloomberg, January 21, 2022, https://www.bloomberg.com/news/articles/2022-01-21/apollo-plans-to-shun-fossil-fuel-investments-in-next-buyout-fund
- 88. Americans for Financial Reform Education Fund, "Private Equity Ownership of U.S. Power Plants: A Hidden Climate Threat," May 2022, https://ourfinancialsecurity.org/2022/05/report-private-equity-ownership-of-u-s-power-plants-a-hidden-climate-threat/
- 89. Apollo, "The Apollo ESG Effect: How Apollo is making change happen in companies, communities, and the world", https://www.apollo.com/esg-corporate-social-responsibility/esg-reporting-and-policy/esg-and-climate-action
- 90. Blackstone, "The Firm," Accessed August 11, 2022, https://www.blackstone.com/the-firm/. AUM as of June 30, 2022
- 91. Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021https://pestakeholder.org/wp-content/uploads/2021/10/PESP\_SpecialReport\_ClimateCrisis\_ Oct2021\_Final.pdf. The energy holdings, percent fossil fuels and climate commitments were updated Sept. 9, 2022 based on a review of emailed responses from Blackstone
- 92. Americans for Financial Reform Education Fund, "Private Equity Ownership of U.S. Power Plants: A Hidden Climate Threat," May 2022, https://ourfinancialsecurity.org/2022/05/report-private-equity-ownership-of-u-s-power-plants-a-hidden-climate-threat/. Blackstone's 2020 downstream emissions data comes from AFREF's analysis of Blackstone's portfolio of four power plants owned via a joint venture with Arclight Capital Partners, accounting for 18.1 million metric tons of carbon dioxide. The emissions data in the scorecard report are from the U.S. Energy Information Administration's update of its data on April 12, 2022.
- 93. U.S. Environmental Protection Agency, "Greenhouse Gas Equivalencies Calculator," Accessed August 14, 2022, https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results.
- 94. Blackstone, "Our Next Step in ESG: A New Emissions Reduction Program," September 29, 2020, https://www. blackstone.com/insights/article/our-next-step-in-esg-a-new-emissions-reduction-program/
- 95. Lim, Dawn and Sabrina Willmer, Blackstone Swears off oil-patch investing as private equity's retreat widens, Bloomberg, Feb 22, 2022, https://www.bloomberg.com/news/articles/2022-02-22/blackstone-swears-off-oilpatch-investing-as-private-equity-s-retreat-widens
- 96. Blackstone, "An Integrated Approach to ESG," November 2021, https://www.blackstone.com/wp-content/ uploads/sites/2/2020/09/BX\_ESG-Brochure\_.pdf
- 97. U.S. Environmental Protection Agency, FLIGHT data for 2020 facility level Greenhouse Gas Emissions for coal plants, https://ghgdata.epa.gov/ghgp/main.do
- 98. U.S. Environmental Protection Agency, "Air Markets Program Data," Analysis conducted by Institute for Energy Economics and Financial Analysis, October, 14, 2021, https://edg.epa.gov/metadata/catalog/search/resource/ details.page?uuid=%7B8F5F04A1-64B9-4C14-B87F-DE5E6B16DA26%7D and referenced in https://ieefa.org/ articles/ieefa-us-pension-funds-investing-indirectly-ohios-gavin-coal-plant-are-risk-financial
- 99. Biswas, Soma, "Coal-Plant Owner Lightstone Seeks \$1.7 Billion Loan Extension, Sources Say," The Wall Street Journal, April 20, 2022, https://www.wsj.com/articles/coal-plant-owner-lightstone-seeks-1-7-billion-loanextension-sources-say-11650482524; Wamstead, Dennis, Feaster, Seth, and Sanzillo, Tom, "Pension Funds Investing Indirectly in Ohio's Gavin Coal Plant Are at Risk as Financial, Environmental Disadvantages Mount: Plant Is Fourth-Largest CO2 Emitter in U.S," Institute for Energy Economics and Financial Analysis, October 2021, https://ieefa.org/wp-content/uploads/2021/10/Pension-Funds-Investing-Indirectly-in-Ohios-Gavin-Coal-Plant-Are-at-Risk-as-Disadvantages-Mount\_October-2021.pdf

100. The energy portfolio for TPG was based on Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels

the Climate Crisis", Private Equity Stakeholder Project, October 2021, https://pestakeholder.org/wp-content/uploads/2021/10/PESP\_SpecialReport\_ClimateCrisis\_Oct2021\_Final.pdf. The energy holdings, percent fossil fuels and climate commitments were updated Sept. 9, 2022 based on a review of emailed responses from TPG.

- 101. TPG Capital, "TPG's Annual ESG Review: Environmental, Social, and Governance Performance," 2022, https://cms. tpg.com/wp-content/uploads/2022/08/TPG-ESG-Report-2022\_FINAL.pdf
- 102. TPG, "Focused on Innovation," Accessed August 16, 2022, https://www.tpg.com/
- 103. TPG Capital, "TPG's Annual ESG Review: Environmental, Social, and Governance Performance," 2022, https://cms. tpg.com/wp-content/uploads/2022/08/TPG-ESG-Report-2022\_FINAL.pdf
- 104. TPG Capital, "The Rise Fund," Accessed on August 12, 2022, https://therisefund.com/; TPG Capital, "TPG's Annual ESG Review: Environmental, Social, and Governance Performance," 2022, https://cms.tpg.com/wp-content/uploads/2022/08/TPG-ESG-Report-2022\_FINAL.pdf
- 105. Interfaith Center on Corporate Accountability, "Statement of Investor Expectations for Job Standards & Community Impacts in the Just Transition," February 2022 https://www.iccr.org/statement-investorexpectations-job-standards-community-impacts-just-transition
- 106. According to the International Energy Agency May 2021 "Net Zero by 2050" report, the least efficient coal plants need to be phased out by 2030 and the remaining coal plants still in use by 2040 need to be retrofitted if we are to achieve net zero by 2050, https://iea.blob.core.windows.net/assets/7ebafc81-74ed-412b-9c60-5cc32c8396e4/ NetZeroby2050-ARoadmapfortheGlobalEnergySector-SummaryforPolicyMakers\_CORR.pdf; The United Nations Intergovernmental Panel of Climate Change echo this pathway and indicate that it is necessary for OECD countries to phase out of existing coal investments by 2030, with all coal investments in other countries following suit by 2040, if we are to stay under the 1.5 degrees Celsius warming scenario. Countries should also end all new fossil fuel exploration and production and shift towards renewable energy – see the UN "Secretary-General's statement on the IPCC Working Group 1 Report on the Physical Science Basis of the Sixth Assessment", August 9, 2021, https://www.un.org/sg/en/content/secretary-generals-statement-the-ipcc-working-group-1-report-the-physical-science-basis-of-the-sixth-assessment#:~:text=There%20must%20be%20no%20-new,fuel%20subsidies%20into%20renewable%20energy.
- 107. UN Principles for Responsible Investment, ERM, and iCI Working Group, "Greenhouse Gas Accounting and Reporting For the Private Equity Sector," May 2022, https://www.unpri.org/download?ac=16265
- 108. Bloch, M., et.al. "Tracking Dangerous Heat in the U.S.", The New York Times, July 12, 2022, https://www.nytimes. com/interactive/2022/us/heat-wave-map-tracker.html
- 109. Kaur, Harmeet, "Eastern Kentucky has long been neglected. After recent floods, locals are relying on each other yet again." CNN, August 9, 2022. https://www.cnn.com/2022/08/09/us/eastern-kentucky-floods-mutual-aid-cec/ index.html; Ives, Mike "Kentucky Braces for More Heavy Rain and Floods", The New York Times, August 2, 2022, https://www.nytimes.com/2022/08/02/us/kentucky-forecast-flood-deaths.html
- 110. Robbins, Jim, "A Silver Lining: Giant Floods Not Only Destroy, They Renew", The New York Times, August 2, 2022, https://www.nytimes.com/2022/08/02/science/yellowstone-flooding.html
- 111. Frangoul, Anmar, "Europe admits it'll have to burn more coal as it tries to wean itself off Russian Energy" CNBC, May 20, 2022, https://www.cnbc.com/2022/05/20/eu-plans-renewables-expansion-says-coal-needed-a-little-while-longer.html
- 112. Frangoul, Anmar, ""Delusional': UN chief slams new fossil fuel funding and warns of climate chaos", CNBC, June 14, 2022, https://www.cnbc.com/2022/06/14/delusional-un-chief-slams-new-fossil-fuel-funding.html
- 113. In compliance with IEA Net Zero 2050 1.5 degrees Celsius scenario analysis. By this, we mean asset managers should not expand beyond their current fossil fuel portfolios through new acquisitions, new construction, or add-ons by existing or newly acquired portfolio companies.
- 114. Howell, A., Watson, D., Baxter, A., Malek, G., "The Burning Question: How to Fix Flaring," Environmental Defense Fund + Business, October 21, 2021, https://business.edf.org/files/ESG-by-EDF-Flaring-Report-Book-V2-Reduced. pdf; Schulz, R., McGlade, C., Zeniewski, P, de Oliveira Bredariol, T., "Flaring Emissions," International Energy Agency, November 2021, https://www.iea.org/reports/flaring-emissions
- 115. Environmental Defense Fund, "Methane: A crucial opportunity in the climate fight," Accessed August 16, 2022, https://www.edf.org/climate/methane-crucial-opportunity-climate-fight
- In 2020, Alliance Bernstein, CalSTRS, and Legal and General Investment Management endorsed ending routine flaring in Texas by 2025, while BlackRock has called for nearly eliminating flaring by 2025. Source: Crowley, K., "Investment Giants Urge Texas To End Most Natural Gas Flaring," Bloomberg, September 4, 2020, https://www.bloomberg.com/news/articles/2020-09-04/investment-giants-urge-texas-to-end-most-flaring-of-natural-gas; Watson, D., LaMair, E., "Investor Guidance on EPA Proposed Standards for Oil and Natural Gas Methane Emissions,"

Environmental Defense Fund, December 2, 2021, https://business.edf.org/files/Investor-Guide-to-Commentingon-EPA-Methane-Rule-Proposal.pdf. In 2020, ExxonMobil reported reducing its own routine flaring at a pace that is consistent with eliminating flaring by 2025, while confirming that ending routine flaring is "within everyone's reach." Source: Ratner, B., "BP, Shell and investment giants call for Texas zero flaring regulations. Will others follow?", Environmental Defense Fund, September 10, 2020, https://blogs.edf.org/energyexchange/2020/09/10/bpshell-and-investment-giants-call-for-texas-zero-flaring-regulations-will-others-follow/

- 117. Bain & Company, The Private Equity Market in 2020: Escape from the Abyss, March 2021 https://www.bain.com/ insights/the-private-equity-market-in-2020/
- 118. Carrington, D., "Climate limit of 1.5C close to being broken, scientists warn," The Guardian, May 9, 2022, https:// www.theguardian.com/environment/2022/may/09/climate-limit-of-1-5-c-close-to-being-broken-scientists-warn; World Meteorological Organization, "Global Annual to Decadal Climate Update," 2022, https://hadleyserver. metoffice.gov.uk/wmolc/WMO\_GADCU\_2022-2026.pdf
- 119. Welsby, D., Price, J., Pye, S., Ekins, P.,, "Unextractable fossil fuels in a 1.5°C world," Nature (597), September 9, 2021, 230-234, https://www.nature.com/articles/s41586-021-03821-8; Carrington, D., "How much of the world's oil needs to stay in the ground?" The Guardian, September 8, 2021, https://www.theguardian.com/environment/2021/sep/08/climate-crisis-fossil-fuels-ground
- 120. Tong, D., Zhang, Q., et. al., "Committed emissions from existing energy infrastructure jeopardize 1.5°C climate target," Nature (572), August 15, 2019, 373-377, https://www.nature.com/articles/s41586-019-1364-3; Carrington, D., "Shut down fossil fuel production sites early to avoid climate chaos, says study," The Guardian, May 17, 2022, https://www.theguardian.com/environment/2022/may/17/shut-down-fossil-fuel-production-sites-early-to-avoid-climate-chaos-says-study.
- 121. United Nations, "Secretary-General's statement on the IPCC Working Group 1 Report on the Physical Science Basis of the Sixth Assessment", August 9, 2021, https://www.un.org/sg/en/content/secretary-generals-statementthe-ipcc-working-group-1-report-the-physical-science-basis-of-the-sixth-assessment#:~:text=There%20 must%20be%20no%20new,fuel%20subsidies%20into%20renewable%20energy.
- 122. According to the International Energy Agency's "Net Zero by 2050" report, the least efficient coal plants need to be phased out by 2030 and the remaining coal plants still in use by 2040 need to be retrofitted if we are to stay under the 1.5°C warming scenario. https://iea.blob.core.windows.net/assets/7ebafc81-74ed-412b-9c60-5cc32c8396e4/NetZeroby2050-ARoadmapfortheGlobalEnergySector-SummaryforPolicyMakers\_CORR.pdf
- 123. UN Principles for Responsible Investment, ERM, and iCI Working Group, "Greenhouse Gas Accounting and Reporting For the Private Equity Sector," May 2022, https://www.unpri.org/download?ac=16265
- 124. Krukowska, Eva, "Carbon Offsets Have an Integrity Problem. COP26 May Help Fix It," Bloomberg, Nov. 16, 2021, https://www.bloomberg.com/news/articles/2021-11-17/carbon-offsets-have-an-integrity-problem-cop26-mayhelp-fix-it; New Climate Institute and Carbon Market Watch, "Corporate Climate Responsibility Monitor 2022," Feb. 2022, https://newclimate.org/sites/default/files/2022/02/CorporateClimateResponsibilityMonitor2022.pdf; White, Natasha and Rathi, Akshat, "Green Groups Want Offsets Disclosed as Part of the SEC"s Climate Rule," Bloomberg, Feb. 14, 2022, https://www.bloomberg.com/news/articles/2022-02-14/green-groups-want-offsetsdisclosed-as-part-of-sec-s-climate-rule.
- 125. Berk, Norah, and Lungungu, Prince, "REDD-Minus: The Rhetoric and Reality of the Mai Ndombe REDD+ Programme," London: Rainforest Foundation UK, 2020, https://www.rainforestfoundationuk.org/media.ashx/ redd-minus.pdf; Jennifer Devine, "Counterinsurgency Ecotourism in Guatemala's Maya Biosphere Reserve." Environment and Planning D: Society and Space 32, no. 6 (January): 984–1001, 2014, available at https://doi. org/10.1068/d13043p; Milne, Sarah, Sango Mahanty, Phuc To, Wolfram Dressler, Peter Kanowski, and Maylee Thavat, "Learning From 'Actually Existing' REDD+: A Synthesis of Ethnographic Findings," Conservation and Society 17, no. 1 (2019): 84–95, 2019, available at https://www.environmentandsociety.org/mml/learning-actuallyexisting-redd-synthesis-ethnographic-findings.
- 126. The call for disclosure of offsets applies across investment portfolios, not just the private equity firm's own corporate operations. The integrity risks of reliance on offsets are described here: Cushing, B., Arkush, D., Martin, A., and Kostyack, J., "Comment to the U.S. Securities and Exchange Commission: Offsets Disclosures in Climate Risk Disclosure Rule," Sierra Club, Public Citizen, Americans for Financial Reform Education Fund, Kostyack Strategies, February 2022, https://www.sierraclub.org/sites/www.sierraclub.org/files/blog/Offsets%20 Disclosures%20in%20Climate%20Risk%20Disclosure%20Rule.pdf
- 127. Jacobsen, M., "The health and climate impacts of carbon capture and direct air capture," Energy & Environmental Science, 2019 (12). https://web.stanford.edu/group/efmh/jacobson/Articles/Others/19-CCS-

DAC.pdf; Climate Justice Alliance, Grassroots Global Justice Alliance, Institute for Policy Studies Climate Policy Program, New York Lawyers for the Public Interest, Indigenous Environmental Network, and Michigan Environmental Justice Coalition letter to the White House's Council on Environmental Quality, 2022, https:// docs.google.com/document/d/1m8j83i6sa-o\_gZ\_hORcb8xcOFOk5m9Ft5RfFeOfASGE/edit.

- 128. Network for Greening the Financial System, "A call for action: Climate change as a source of financial risk," April 2019, https://www.ngfs.net/sites/default/files/medias/documents/ngfs\_first\_comprehensive\_report\_-\_17042019\_0. pdf; Network for Greening the Financial System, " Scenarios Portal", Accessed August 16, 2022, https://www.ngfs. net/ngfs-scenarios-portal/
- 129. United Nations, "United Nations Declaration on the Rights of Indigenous Peoples, September 2007, https:// www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP\_E\_web.pdf
- 130. United Nations Principles of Responsible Investment, "Deforestation as systemic risk: An opportunity for investors collective action," Accessed May 18, 2022, https://www.unpri.org/sustainable-land-use/deforestation-as-a-systemic-risk-an-opportunity-for-investors-collective-action/7711.article.
- 131. Rainforest Action Network, "Principles For Paris-Aligned Financial Institutions: Climate Impact, Fossil Fuels, And Deforestation," September 16, 2020, https://www.ran.org/wp-content/uploads/2020/09/RAN\_Principles\_for\_Paris-Aligned\_Financial\_Institutions.pdf
- 132. The Paris Agreement notes "the importance of ensuring the integrity of all ecosystems, including oceans, and the protection of biodiversity, recognized by some cultures as Mother Earth." https://unfccc.int/files/meetings/paris\_nov\_2015/application/pdf/paris\_agreement\_english\_.pdf
- 133. Rainforest Action Network, "Principles For Paris-Aligned Financial Institutions: Climate Impact, Fossil Fuels, And Deforestation," September 16, 2020, https://www.ran.org/wp-content/uploads/2020/09/RAN\_Principles\_for\_Paris-Aligned\_Financial\_Institutions.pdf
- 134. Global Canopy, "Deforestation-Free Finance," Accessed May 18, 2022, https://guidance.globalcanopy.org/
- 135. According to the International Labour Organization, a 'just transition' means 'greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind. A Just Transition involves maximizing the social and economic opportunities of climate action, while minimizing and carefully managing any challenges including through effective social dialogue among all groups impacted, and respect for fundamental labour principles and rights.'" Source: International Labour Organization, "Frequently Asked Questions on Just Transition," https://www.ilo.org/global/topics/green-jobs/ WCMS\_824102/lang--en/index.htm, Accessed May 17, 2022.
- 136. These demands are based on the UNPRI's Investor Expectations on Corporate Climate Lobbying found here: https://www.unpri.org/Uploads/i/k/t/Investor-Expectations-on-Corporate-Climate-Lobbying\_en-GB.pdf
- 137. Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels the Climate Crisis," Private Equity Stakeholder Project, October 2021 https://pestakeholder.org/wp-content/uploads/2021/10/PESP\_SpecialReport\_ ClimateCrisis\_Oct2021\_Final.pdf. The energy holdings and percent fossil fuels scorecard were updated Sept. 9, 2022 based on a review of emailed responses from several of the private equity firms.
- 138. Americans for Financial Reform Education Fund "Private Equity Ownership of U.S. Power Plants: A Hidden Climate Threat," May 2022, https://ourfinancialsecurity.org/2022/05/report-private-equity-ownership-of-u-s-power-plants-a-hidden-climate-threat/. The emissions data in the scorecard report are from the U.S. Energy Information Administration's update of its data on April 12, 2022 and were also updated Sept. 9, 2022 based on a review of emailed responses from several of the private equity firms.
- 139. NGP Energy Capital Management, "Form ADV Part 2A Disclosure Brochure", March 30, 2021, https://files. adviserinfo.sec.gov/IAPD/Content/Common/crd\_iapd\_Brochure.aspx?BRCHR\_VRSN\_ID=699522;
- 140. The Carlyle Group Inc., "Form 10-K", December 31, 2021, page 60, https://www.sec.gov/ix?doc=/Archives/edgar/da ta/0001527166/000152716622000007/cg-20211231.htm
- 141. The Carlyle Group Inc., "Form 10-K", December 31, 2021, page 60, https://www.sec.gov/ix?doc=/Archives/edgar/da ta/0001527166/000152716622000007/cg-20211231.htm
- 142. The Carlyle Group Inc., "Form 10-K", December 31, 2021, page 100, https://www.sec.gov/ix?doc=/Archives/edgar/ data/0001527166/000152716622000007/cg-20211231.htm
- 143. The energy portfolio for Carlyle/NGP was based on Giachino, A. and Mehta-Neugebauer, R.,"Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021 https://pestakeholder.org/wp-content/uploads/2021/10/PESP\_SpecialReport\_ClimateCrisis\_Oct2021\_Final.pdf. The energy holdings, percent fossil fuels and climate commitments were updated Sept. 9, 2022 based on a review of emailed responses from Carlyle.
- 144. Americans for Financial Reform Education Fund "Private Equity Ownership of U.S. Power Plants: A Hidden

Climate Threat," May 2022, https://ourfinancialsecurity.org/2022/05/report-private-equity-ownership-of-u-s-power-plants-a-hidden-climate-threat/.

- 145. The Carlyle Group, "Carlyle Sets Net Zero by 2050 and Near-Term Climate Goals for Meaningful, Immediate Action with a Focus on Real Emissions Reductions," February 1, 2022, https://www.carlyle.com/media-room/ news-release-archive/carlyle-sets-net-zero-2050-and-near-term-climate-goals
- 146. Carlyle Group, "Task Force on Climate-related Financial Disclosures Report," 2021, page 9, https://www.carlyle. com/sites/default/files/2021\_Carlyle\_TCFD-Report\_01.12.pdf
- 147. The Carlyle Group, "Carlyle Sets Net Zero by 2050 and Near-Term Climate Goals for Meaningful, Immediate Action with a Focus on Real Emissions Reductions," February 1, 2022, https://www.carlyle.com/media-room/ news-release-archive/carlyle-sets-net-zero-2050-and-near-term-climate-goals
- 148. Gara, Antoine, "Carlyle merges energy and infrastructure units ahead of investment push," Financial Times, May 12, 2022, https://www.ft.com/content/29037912-f329-463b-9647-92a63d5816c2
- 149. Warburg Pincus, "Creating a network effect: Environmental, Social and Governance Report," 2021, pp. 7-8. https://warburgpincus.com/wp-content/uploads/2021/08/Warburg-Pincus\_2021-ESG-Report.pdf
- 150. Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels the Climate Crisis," Private Equity Stakeholder Project, October 2021 https://pestakeholder.org/wp-content/uploads/2021/10/PESP\_SpecialReport\_ ClimateCrisis\_Oct2021\_Final.pdf
- 151. Warburg Pincus, "Warburg Pincus Homepage As of June 30, 2022," Accessed August 16, 2022 https://warburgpincus.com/
- 152. Bloomberg Law, "Warburg Plans \$15 Billion Buyout Fund That Shuns Fossil Fuels," March 10, 2021, https://news. bloomberglaw.com/esg/warburg-plans-15-billion-buyout-fund-that-shuns-fossil-fuels?utm\_source=rss&utm\_ medium=CTNW&utm\_campaign=00000178-1d87-d55c-af79-1de789d40003
- 153. Citizen Energy, "Citizen Energy Expands Mid-Continent Footprint with Gas-Rich Bolt-On Acquisition," BusinessWire, October 11, 2021, https://www.businesswire.com/news/home/20211011005686/en/Citizen-Energy-Expands-Mid-Continent-Footprint-with-Gas-Rich-Bolt-On-Acquisition
- 154. Citizen Energy, "Citizen Energy Continues Mid-Continent Success with Accretive Consolidation," BusinessWire, June 29, 2022, https://www.businesswire.com/news/home/20220629005976/en/Citizen-Energy-Continues-Mid-Continent-Success-with-Accretive-Consolidation
- 155. Mendoza, Amanda, "Warburg Pincus Continues with Oil and Gas Acquisitions Despite Announcement to Move Away From Fossil Fuel Investments," Private Equity Stakeholder Project, December 16, 2021, https:// pestakeholder.org/news/warburg-pincus-continues-with-oil-and-gas-acquisitions-despite-announcement-tomove-away-from-fossil-fuel-investments/
- 156. Warburg Pincus, "Creating a network effect: Environmental, Social and Governance Report," 2021, p. 20. https:// warburgpincus.com/wp-content/uploads/2021/08/Warburg-Pincus\_2021-ESG-Report.pdf
- 157. KKR & Co, "Form 10K," December 31, 2021, pg. 17. https://www.sec.gov/ix?doc=/Archives/edgar/ data/1404912/000140491222000004/kkr-20211231.htm,
- 158.Blackgold Capital Management, "Blackgold Completes Midland Basin Acquisition," January 22, 2022 https://www.businesswire.com/news/home/20200122005197/en/BlackGold-Completes-Mineral-Acquisitions-in-the-Midland-Basin
- 159. KKR, "KKR Today As of March 31, 2022," Accessed August 16, 2022, https://www.kkr.com/kkr-today
- 160. The energy portfolio for KKR was based on Giachino, A. and Mehta-Neugebauer, R.,"Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021 https://pestakeholder.org/wp-content/ uploads/2021/10/PESP\_SpecialReport\_ClimateCrisis\_Oct2021\_Final.pdf. The energy holdings, percent fossil fuels and climate commitments were updated Sept. 9, 2022 based on a review of emailed responses from KKR.
- 161.Seeger, Elizabeth, "KKR's Climate Action Strategy: Managing Risks and Seizing Opportunities," KKR, November<br/>9, 2021, https://www.kkr.com/global-perspectives/kkr-blog/kkrs-climate-action-strategy
- 162. KKR, "KKR Closes \$17 Billion Global Infrastructure Fund," BusinessWire, March 14, 2022, https://www. businesswire.com/news/home/20220314005151/en/KKR-Closes-17-Billion-Global-Infrastructure-Fund
- 163. KKR, "KKR Portfolio," Accessed August 18, 2022, https://www.kkr.com/businesses/private-equity/kkr-portfolio?page=Infrastructure, Half of the 40 assets listed on KKR's infrastructure page are energy, which KKR said are as of June 30, 2022. Therefore, we estimate that 50 percent of KKR's \$40 billion is in energy, or \$20 billion. Examples of some of the listed deals include the \$4 billion Abu Dhabi National Oil Company pipelines deal https://www.reuters.com/article/us-adnoc-blackrock/adnoc-closes-4-billion-pipeline-deal-with-kkr-and-blackrock-idUSKCNITSI5C; the \$6.6 billion Coastal GasLink Pipeline deal https://www.businesswire.com/news/home/20191226005038/en/KKR-to-Acquire-Significant-Stake-in-Canada%E2%80%99s-Coastal-GasLink-Pipeline-

Project and the \$3.37 billion Sempra Energy deal - https://www.reuters.com/article/us-sempra-usa-divestiture-kkr/sempra-energy-to-sell-20-stake-in-unit-to-kkr-for-3-37-billion-idUSKBN2BS0UY

- 164. Oaktree Capital, "Brookfield Asset Management Completes Acquisition of 61.2% of Oaktree Capital Management", September 30, 2019, https://ir.oaktreecapital.com/news-releases/news-release-details/brookfieldasset-management-completes-acquisition-612-oaktree
- 165. Brookfield, "Brookfield Infrastructure Fund V (BIF V)," August 2022, Presentation to New Mexico State Investment Council, pg. 158, https://www.sic.state.nm.us/council-committees/meeting-materials/. Utilities was updated based on a review of emails from Brookfield to exclude electricity transmission, residential infrastructure businesses, and smart meter and submetering businesses.
- 166. Brookfield, "Pioneers of long-term impact," Accessed August 16, 2022, https://www.brookfield.com/
- 167. The energy portfolio for Brookfield/Oaktree was based on Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels the Climate Crisis," Private Equity Stakeholder Project, October 2021 https://pestakeholder. org/wp-content/uploads/2021/10/PESP\_SpecialReport\_ClimateCrisis\_Oct2021\_Final.pdf. The energy holdings, percent fossil fuels and climate commitments were updated Sept. 9, 2022 based on a review of emailed responses from Brookfield.
- 168. Brookfield, "Brookfield's Net-Zero Commitment," Accessed August 10, 2022, https://www.brookfield.com/ responsibility/brookfields-net-zero-commitment; Net Zero Asset Managers Initiative, "The Net Zero Asset Managers Commitment," 2021, Accessed September 7, 2022, https://www.netzeroassetmanagers.org/ media/2021/12/NZAM-Commitment.pdf.
- 169. Inter Pipeline, "Brookfield Infrastructure Closes Strategic Acquisition of Inter Pipeline," October 28, 2021, https:// interpipeline.com/news-releases/brookfield-infrastructure-closes-strategic-acquisition-of-inter-pipeline/
- 170. Diversified Energy, "Diversified Gas & Oil PLC Announces Strategic Participation Agreement," October 5, 2020, https://www.div.energy/news-events/us-press-releases/detail/94/diversified-gas-oil-plc-announces-strategic-participation
- 171. Ares Management Corporation, "About Ares Management Corporation As of June 30, 2022," Accessed August 16, 2022 https://www.aresmgmt.com/about-ares-management-corporation
- 172. The energy portfolio for Ares was based on Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021 https://pestakeholder.org/wp-content/ uploads/2021/10/PESP\_SpecialReport\_ClimateCrisis\_Oct2021\_Final.pdf. The energy holdings, percent fossil fuels and climate commitments were updated Sept. 9, 2022 based on a review of emailed responses from Ares.
- 173. Americans for Financial Reform Education Fund, "Private Equity Ownership of U.S. Power Plants: A Hidden Climate Threat," May 2022, https://ourfinancialsecurity.org/2022/05/report-private-equity-ownership-of-u-s-power-plants-a-hidden-climate-threat/
- 174. Ares Management, "Accelerating Our Impact: Sustainability Report," 2021, https://www.aresmgmt.com/sites/ default/files/2022-06/Ares\_Sustainability\_Report-vF-2021F.pdf; TCFD Climate Action Report 2022, https://www. aresmgmt.com/sites/default/files/2022-06/2022-Ares-TCFD-Climate-Action-Report\_vFinal628.pdf
- 175. Ares Management, "Ares Environmental Policy," March 2021, https://www.aresmgmt.com/sites/default/ files/2021-05/2021-02-26\_Environmental\_Policy\_vF.pdf, Ares Management Corporation, "Q2 2020 Earnings Call Transcript," The Motley Fool, August 5, 2020, https://www.fool.com/earnings/call-transcripts/2020/08/05/aresmanagement-corporation-ares-q2-2020-earnings.aspx.
- 176. Apollo Global Management, "Form 10-Q", March 31, 2022, https://www.sec.gov/ix?doc=/Archives/edgar/ data/1858681/000185868122000029/apo-20220331.htm. We estimated energy to be 50 percent of Apollo's overall infrastructure assets, or around \$4.05 billion based on Apollo's description of its infrastructure focus: "Apollo's infrastructure business, which is currently investing out of its second dedicated infrastructure fund, focuses primarily on opportunities in power and renewables, communications, midstream energy and transportation." https://www.apollo.com/media/press-releases/2020/08-14-2020-120005013. Examples of just some of Apollo's energy deals include the \$2 billion New Fortress Energy LNGhttps://www.nasdaq.com/articles/new-fortressenergy-to-sell-Ing-infrastructure-vessels-to-jv-with-apollo-funds-in-%242-bln; Broad Reach Power, \$400 million - https://www.globenewswire.com/news-release/2021/11/22/2338947/0/en/Apollo-Funds-to-Acquire-50-Stake-in-Broad-Reach-Power-from-EnCap.html; U.S. Wind, \$265 million - https://www.reuters.com/article/ us-apollo-global-investment/apollo-to-acquire-stake-in-renewable-energy-developer-us-wind-for-265-millionidUSKCN25A1XV; NextEra Energy Partners Renewable JV, \$816 million - https://www.apollo.com/media/press-rele ases/2021/12-29-2021-141514676; GE Energy, \$1 billion - https://www.ge.com/news/press-releases/funds-managedapollo-global-management-acquire-approximately-1-billion-portfolio
- 177. Willmer, Sabrina, "Apollo to Shun Fossil-Fuel Investments in Next Buyout Fund," Bloomberg, January 21, 2022, https://

www.bloomberg.com/news/articles/2022-01-21/apollo-plans-to-shun-fossil-fuel-investments-in-next-buyout-fund

- 178. Apollo Global Management, "Form 10-Q", March 31, 2022, https://www.sec.gov/ix?doc=/Archives/edgar/ data/1858681/000185868122000029/apo-20220331.htm
- 179. The energy portfolio for Apollo was based on Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021 https://pestakeholder.org/wp-content/ uploads/2021/10/PESP\_SpecialReport\_ClimateCrisis\_Oct2021\_Final.pdf. In a Sept. 2, 2022 email Apollo reported it has 35 holdings, 18 in energy and 17 in 'climate' but Apollo did not provide additional information about those companies that would allow an analysis.
- 180. Americans for Financial Reform Education Fund, "Private Equity Ownership of U.S. Power Plants: A Hidden Climate Threat," May 2022, https://ourfinancialsecurity.org/2022/05/report-private-equity-ownership-of-u-s-power-plants-a-hidden-climate-threat/
- 181. Willmer, Sabrina, "Apollo to Shun Fossil-Fuel Investments in Next Buyout Fund," Bloomberg, January 21, 2022, https://www.bloomberg.com/news/articles/2022-01-21/apollo-plans-to-shun-fossil-fuel-investments-in-next-buyout-fund
- 182. Apollo, "Apollo ESG in Action," Accessed August 12, 2022, https://www.apollo.com/esg-corporate-social-responsibility/esg-reporting-and-policy/esg-and-climate-action
- 183. Blackstone, "The Firm," Accessed August 16, 2022, https://www.blackstone.com/the-firm/
- 184. Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels the Climate Crisis," Private Equity Stakeholder Project, October 2021 https://pestakeholder.org/wp-content/uploads/2021/10/PESP\_SpecialReport\_ ClimateCrisis\_Oct2021\_Final.pdf. The energy holdings, percent fossil fuels and climate commitments were updated Sept. 9, 2022 based on a review of emailed responses from Blackstone.
- 185. Americans for Financial Reform Education Fund, "Private Equity Ownership of U.S. Power Plants: A Hidden Climate Threat," May 2022, https://ourfinancialsecurity.org/2022/05/report-private-equity-ownership-of-u-s-power-plants-a-hidden-climate-threat/. The downstream power plants were updated Sept. 9, 2022 based on a review of emailed responses from Blackstone.
- 186. Lim, Dawn and Sabrina Willmer, Blackstone Swears off oil-patch investing as private equity's retreat widens, Bloomberg, Feb 22, 2022, https://www.bloomberg.com/news/articles/2022-02-22/blackstone-swears-off-oilpatch-investing-as-private-equity-s-retreat-widens
- 187. Blackstone, "Our Next Step in ESG: A New Emissions Reduction Program," September 29, 2020, https://www. blackstone.com/insights/article/our-next-step-in-esg-a-new-emissions-reduction-program/
- 188. Blackstone, "An Integrated Approach to ESG," November 2021, https://www.blackstone.com/wp-content/ uploads/sites/2/2020/09/BX\_ESG-Brochure\_.pdf
- 189. TPG, "TPG At A Glance," Accessed August 16, 2022, https://www.tpg.com/
- 190. TPG Capital, "TPG's Annual ESG Review: Environmental, Social, and Governance Performance," 2022, https://cms. tpg.com/wp-content/uploads/2022/08/TPG-ESG-Report-2022\_FINAL.pdf
- 191. The energy portfolio for TPG was based on Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021, https://pestakeholder.org/wp-content/ uploads/2021/10/PESP\_SpecialReport\_ClimateCrisis\_Oct2021\_Final.pdf. The energy holdings, percent fossil fuels and climate commitments were updated Sept. 9, 2022 based on a review of emailed responses from TPG.
- 192. TPG Capital, "Pace Energy," Accessed August 12, 2022, https://pace.tpg.com/pace-energy/
- 193. TPG Capital, "TPG's Annual ESG Review: Environmental, Social, and Governance Performance," 2022, https://cms. tpg.com/wp-content/uploads/2022/08/TPG-ESG-Report-2022\_FINAL.pdf
- 194. TPG Capital, "ESG Performance Report, 2020-2021," https://cms.tpg.com/wp-content/uploads/2022/01/TPG-2020-21-ESG-Performance-Report\_FOR-PUBLICATION.pdf; TPG Capital, "TPG's Annual ESG Review: Environmental, Social, and Governance Performance," 2022, https://cms.tpg.com/wp-content/uploads/2022/08/TPG-ESG-Report-2022\_FINAL.pdf
- 195. The Climate Demands And Scorecard For Private Equity were developed by the Sunrise Project, Private Equity Stakeholder Project, and Americans for Financial Reform Education Fund. The demands are endorsed by Action Center on Race and the Economy, Climate Finance Action, Friends of the Earth, Food and Water Watch, Greenpeace, Natural Resources Defense Council, Public Citizen, Sierra Club, and Stand.earth.
- 196. Americans for Financial Reform Education Fund, "Private Equity Ownership of U.S. Power Plants: A Hidden Climate Threat," May 2022, https://ourfinancialsecurity.org/2022/05/report-private-equity-ownership-of-u-s-power-plants-a-hidden-climate-threat/
- 197. Giachino, A. and Mehta-Neugebauer, R., "Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021, https://pestakeholder.org/wp-content/uploads/2021/10/PESP\_SpecialReport\_

ClimateCrisis\_Oct2021\_Final.pdf. The energy holdings and percent fossil fuels scorecard were updated Sept. 9, 2022 based on a review of emailed responses from several of the private equity firms.

- 198. Americans for Financial Reform Education Fund, "Private Equity's Ownership of U.S. Power Plants: A Hidden Climate Threat," May 2022, https://ourfinancialsecurity.org/2022/05/report-private-equity-ownership-of-u-s-power-plants-a-hidden-climate-threat
- 199. For examples see: Yang, Lin (2014), , "An Inventory of Composite Measures of Human Progress," UNDP Human Development Report Office; United Nations Development Programme (1990), "Human Development Report 1990: Concept and Measurement of Human Development," http://www.hdr.undp.org/en/reports/global/hdr1990.
- 200. Note that the directionality of the private equity demands indicator is reversed during the normalization, meaning that the normalized indicator is expressing the degree to which the private equity firms are out of compliance with the set of demands. In other words, a normalized value of 1 means that the company is not complying with any of the demands and the closer to a normalized value of zero, the more the company is in alignment with the demands.
- 201. Yang (2014).
- 202. Because the geometric mean requires the product of the indicators, in every instance where we either do not have data or we have a value of zero that could be dependent on lack of information for that indicator (like emissions), using the geometric mean will yield a total score of zero. But the zero is attributed to the lack of information, not progress towards mitigating climate change.
- 203. In an email to Private Equity Stakeholder Project dated September 5, 2022, TPG stated that it has "been fully exited from Delta Dunia [an Indonesian coal power plant] since July 2021 and has no additional coal." TPG has made no readily available coal exclusion policy for current or future funds.
- 204. The energy portfolio for Apollo was based on Giachino, A. and Mehta-Neugebauer, R.,"Private Equity Propels the Climate Crisis", Private Equity Stakeholder Project, October 2021 https://pestakeholder.org/wp-content/ uploads/2021/10/PESP\_SpecialReport\_ClimateCrisis\_Oct2021\_Final.pdf. In a Sept. 2, 2022 email Apollo reported it has 35 holdings, 18 in energy and 17 in 'climate' but Apollo did not providadditional information about those companies that would allow an analysis.



PEClimateRisks.org