

# **TABLE OF CONTENTS Executive Summary Energy & Infrastructure Search May Flash Report** 3 **Work Plan Appendix** 5





To: Boston Retirement System

From: NEPC, LLC

**Date**: June 21, 2023

**Subject:** Investment Program Review – June 2023

This memo is intended to highlight the primary discussion points for the June Board meeting of the Boston Retirement System.

#### **ACTION ITEMS**

<u>Energy/Infrastructure (PE) Search</u> – As a reminder, the infrastructure search was issued as part of private equity search which included infrastructure, diverse fund of funds, and coinvestments. The annual pacing plan recommends that the System commits \$40 million to private equity/infrastructure in 2023.

At the May meeting, NEPC presented additional information on a shortlist of candidates and the Board selected seven finalists to interview: three energy funds and four infrastructure funds. The three energy finalists will present at today's meeting as listed below, and the infrastructure finalists will present in July. The search information can be found under Tab 2 (iPad 5).

10:10 Carlyle

David Gluck, *Managing Director - Renewables & Infrastructure*Justin Kwan, *Vice President - Renewables & Infrastructure*Alec Cote, *Client Relationship Manager - Investor Relations* 

10:30 Kayne Anderson

Danny Weingeist, Managing Partner, Kayne Anderson Energy Funds

Orr Shepherd, CFA, CAIA, Sr. Managing Director

10:50 NGP

Chris Carter – *Managing Partner* Kevin Sirchia – *Vice President* 

#### **DISCUSSION ITEMS**

May Flash Report – The preliminary May flash report can be found under Tab 3 (iPad 10).

<u>Work Plan</u> – NEPC has included an updated work plan with the meeting materials. The work plan can be found under Tab 4 (iPad 15).



#### **ENERGY & INFRASTRUCTURE SEARCH**

- The infrastructure search was issued as part of the 2022/2023 private equity search
- The annual pacing plan recommends that the System commits \$40 million to private equity/infrastructure in 2023
- Three energy respondents were selected as finalists and will be presenting today.
  - Four Infrastructure candidates were also selected as finalists and will be presenting in July.
- At today's meeting NEPC will provide additional information on the shortlist of candidates
  - The candidate information is included on the subsequent pages



#### **FUND PROFILE: THE CARLYLE GROUP**

General Fund Information								
Fund Name	Carlyle Renewable and Sustainable Energy Fund II							
Investment Manager	The Carlyle Group							
Main Address	799 9th Street, NW, Suite 200 Washington, DC 20001							
Target Fund Size/Hard Cap	\$2 billion / None stated							
Capital Raised	\$535 million as of June 2023							
Expected Final Close	Q4 2023							
Fund Structure	Luxembourg Limited Partnership							
Investment Period	Five years							
Term of Entity	12 years from Final Close date							
Minimum Investment	\$10 million							
Fund Auditor	Ernst & Young, LLP							

	Fund Strategy
Fund Strategy	Infrastructure
Industry Focus	Renewable and Sustainable Energy
Geographic Focus	Global
Target Fund Leverage	No limits have been set for the minimum or maximum leverage that can be applied to a portfolio company
Target Deal Size	\$75 to \$250 million
Strategy Description	The Fund will have a value-add focus and will seek to invest in renewable and sustainable energy, including energy transition opportunities where the Fund has potential to generate outperformance through a private equity value-creation approach. The Fund will be focused target primarily on two major sectors; renewables (solar, wind, battery energy storage systems) and energy transition (Electric Vehicles, distributed energy resources, and industry decarbonization technology).

GP Fees,	Promote and Commitment
Target Net IRR	9% - 14%
Target Net Multiple	N/A
Management Fees	Management Fees start at a rate of 1.50% per annum for limited partners with commitments less than \$10 million and are scaled down for larger commitments as follows:  • \$10 million to \$50 million: 1.40% • \$50 million to \$100 million: 1.20% • Greater than \$100 million: 1.00%  Any limited partners that participate in the Initial Closing shall have their management fee rate reduced by 0.15% per annum.
Preferred Return	8%
Carried Interest	20%
GP Commitment	1.5% of total commitments

Fund Track Record (\$ in Millions)										
Fund Name Fund Style Vintage Year Capital Capital Reported Amount Committed Funded Value Distributed Total Value Multiple Multiple IRR									Net Investor IRR	
Carlyle Renewable and Sustainable Energy Fund	Value-Add	2019	\$708	\$556	\$696	\$11	\$707	1.11x	0.0x	10.4%



Track record data as of 03/31/2023 and provided by the Manager.

#### **FUND PROFILE: KAYNE ANDERSON**

General Fund Information							
Fund Name	Kayne Private Energy Income Fund III						
Investment Manager	Kayne Anderson Capital Advisors						
Main Address	1800 Avenue of the Star, Third Floor Los Angeles, CA 90067						
Target Fund Size/Hard Cap	\$1.5 billion / None stated						
Capital Raised	\$600 million to \$700 million expected in June 2023						
Expected Final Close	Q1 2024						
Fund Structure	Delaware Limited Partnership						
Investment Period	Five-year Commitment Period, plus two years for follow-on investments						
Term of Entity	10 years, subject to two one-year extensions with Advisory Board approval						
Minimum Investment	\$2 million (though the General Partner may accept a lower amount at its discretion)						
Fund Auditor	PricewaterhouseCoopers						

Fund Strategy						
Fund Strategy	Energy					
Industry Focus	Upstream					
Geographic Focus	North America					
Target Fund Leverage	40% - 60% at the investment level					
Target Deal Size	\$250 million to \$500 million					
Strategy Description	The Fund expects to make sizable equity investments in a small number of private energy companies. The Fund intends to invest in 4 to 6 high-quality management teams with the experience and skillset necessary to pursue large platform acquisitions. The Fund's portfolio companies will target oil and gas assets that have a meaningful percentage of value attributable to proved developed producing ("PDP") reserves, with the remainder allocated to low-risk development upside. These assets will be in basins where the Fund's portfolio companies can build scale over time, which we believe is crucial to creating value across commodity price cycles.					

GP Fee	es, Promote and Commitment					
Target Net IRR	20%					
Target Net Multiple	2.0x					
Management Fees	<ul> <li>1.50% (per annum) of commitments during the Commitment Period (the "Commitment Period Management Fee")</li> <li>1.50% (per annum) of the lower of (a) the aggregate total cost or (b) the aggregate net asset value ("NAV") of the Fund's investments after the expiration of the Commitment Period (the "Post-Commitment Period Management Fee").</li> <li>No management fees will be charged after the tenth anniversary of the Commitment Period Commitment Date.</li> </ul>					
Preferred Return	8%					
Carried Interest	20% with an 80% GP catch-up					
GP Commitment	2% of capital commitments					

Fund Track Record (\$ in Millions)										
Fund Name Fund Style Vintage Capital Capital Reported Amount Total Value Net TVPI Net DPI Net Investor IRR									Net Investor IRR	
Kayne Private Energy Income Fund I	Energy	2016	\$1,550	\$1,458	\$1,068	\$1,925	\$2,834	1.94x	1.32x	18.2%
Kayne Private Energy Income Fund II	Energy	2018	\$1,253	\$962	\$1,062	\$378	\$1,368	1.42x	0.39x	28.3%



Track record data as of 03/31/2023 and provided by the Manager.

#### **FUND PROFILE: NATURAL GAS PARTNERS**

General Fund Information							
Fund Name	NGP Natural Resources XIII						
Investment Manager	NGP Energy Capital Management						
Main Address	2850 N. Harwood Street, 19th Floor Dallas, TX 75201						
Target Fund Size/Hard Cap	\$2.5 billion / None stated						
Capital Raised	\$880 million as of June 2023						
Expected Final Close	Q3 2024						
Fund Structure	Delaware Limited Partnership						
Investment Period	5 years						
Term of Entity	10 years with two one-year extensions and one year to liquidate						
Minimum Investment	\$1 million						
Fund Auditor	Ernst & Young						

	Fund Strategy					
Fund Strategy	Energy					
Industry Focus	Upstream / Midstream					
Geographic Focus	United States					
Target Fund Leverage	< 25% total capitalization / 2x debt/EBITDA					
Target Deal Size	\$25 million to \$375 million					
Strategy Description	NGP13 will execute on core acquisition and development strategy in the upstream and midstream sectors, with a focus on growth equity. The Fund intends to build a portfolio of 10 to 15 energy companies that generate strong returns with a focus on cash distributions. The strategy will focus on high-quality upstream and midstream companies located in basins across North America					

GP Fee	es, Promote and Commitment
Target Net IRR	20%
Target Net Multiple	2.0x
Management Fees	1.5% on committed and invested capital
Preferred Return	8%
Carried Interest	20%
GP Commitment	2% of Limited Partner Commitments

Fund Track Record (\$ in Millions)										
Fund Name	Fund Style	Vintage Year	Capital Committed	Capital Funded	Reported Value	Amount Distributed	Total Value	Net TVPI Multiple	Net DPI Multiple	Net Investor IRR
NGP Natural Resources IX	Energy	2007	\$4,000	\$4,335	\$16	\$6,222	\$6,235	1.4x	1.4x	11%
NGP Natural Resources X	Energy	2012	\$3,586	\$3,739	\$412	\$3,282	\$3,694	1.0x	0.9x	(0.3%)
NGP Natural Resources XI	Energy	2014	\$5,325	\$5,309	\$4,859	\$4,471	\$8,579	1.6x	0.8x	11%
NGP Natural Resources XII	Energy	2017	\$4,304	\$3,183	\$3,704	\$1,674	\$4,959	1.6x	0.5x	15%



Track record data as of 03/31/2023 and provided by the Manager.



### **TOTAL FUND PERFORMANCE DETAIL (NET)**

	Al	location					Pe	rforman	ce (%)		
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	6,261,675,054	100.0	100.0	-0.8	3.0	1.0	7.4	5.0	6.1	7.3	Aug-94
Allocation Index				-1.1	2.8	-0.2	7.3	5.2	6.3		
Policy Index				-1.1	3.3	0.6	7.5	5.9	6.7		
PRIT Core Fund/Teachers*	2,102,624,000	33.6		-1.1	3.2	-1.6	8.3	6.5	7.4	8.4	Jul-10
Total Equity	2,958,243,821	47.2	47.0	-1.5	5.2	0.3	9.1	4.7	7.0	7.9	Dec-10
MSCI AC World Index (Net)				-1.1	7.7	0.9	10.1	6.8	7.8	8.2	
Large Cap Comp	1,068,149,599	17.1	17.0	0.2	7.3	0.9	10.9	9.8	11.8	9.4	Dec-04
Rhumbline Advisors	282,087,299	4.5		0.4	9.6	2.9	12.9	11.0	11.9	6.0	Aug-94
DE Shaw Core Enhanced	359,398,300	5.7		0.4	8.6	2.0	12.4	10.9	12.1	13.1	Oct-09
S&P 500 Index				0.4	9.6	2.9	12.9	11.0	12.0	12.8	
Aristotle Value	152,756,462	2.4		-2.3	0.9	-5.1	11.2			8.1	Nov-19
Columbia Threadneedle	176,371,703	2.8		-3.8	-5.3	-6.3	14.7	7.6	10.0	6.7	Jan-97
Russell 1000 Value Index				-3.9	-1.4	-4.5	11.6	6.8	8.4	8.0	
Zevenbergen Capital	97,116,427	1.6		11.5	39.7	17.4	-3.0	8.2	13.0	11.0	Aug-94
Russell 1000 Growth Index				4.6	20.8	9.5	12.8	13.8	14.8	10.5	
Small Cap Comp	400,305,750	6.4	6.0	-2.4	-1.9	-4.8	8.2	4.2	8.1	8.3	Dec-04
Aristotle Small Cap	176,654,967	2.8		-3.4	-5.2	-4.2	10.1	3.0		7.1	Nov-15
Russell 2000 Index				-0.9	0.0	-4.7	9.2	2.7		7.0	
Westfield Capital Management	120,491,955	1.9		-0.6	6.3	4.3	8.3	7.4	10.1	10.2	Sep-03
Russell 2000 Growth Index				0.0	4.9	2.7	4.6	2.7	7.9	8.2	
Mesirow Small Cap Value	102,886,851	1.6		-2.9						-2.9	May-23
Russell 2000 Value Index				-2.0						-2.0	

Note: Returns are net of manager fees.



<sup>-</sup> PRIT Core Fund/Teacher is estimated based off the Policy Index

<sup>-</sup> PRIT Core Fund/Teacher is not included in the Total Fund value.

### **TOTAL FUND PERFORMANCE DETAIL (NET)**

	Al	location			Performance (%)						
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Non-US Equity	1,489,788,472	23.8	24.0	-2.5	5.6	1.1	7.8	0.9	3.0	5.3	Aug-94
International Equity	1,030,009,325	16.4	16.0	-3.4	5.6	1.3	8.6	1.6	3.7	4.5	Dec-10
Todd	300,685,959	4.8		-4.1	0.1	-3.5	9.7	2.7		5.4	Apr-16
MSCI ACWI ex USA				-3.6	4.8	-1.4	7.2	2.2		5.4	
Panagora Asset Management	313,171,919	5.0		-3.9	7.0	2.9	10.0	2.3	5.0	5.5	Aug-94
Walter Scott International Equity	290,953,736	4.6		-1.5	12.4	7.3				3.4	Oct-20
MSCI EAFE (Net)				-4.2	6.8	3.1				6.4	
Segall Bryant Hamill	124,967,846	2.0		-4.5	1.7	-3.3	8.2	-2.4		-1.9	Nov-17
MSCI EAFE Small Cap (Net)				-4.2	2.6	-4.7	5.2	0.3		1.2	
Emerging Markets	459,779,146	7.3	8.0	-0.4	5.6	0.6	6.1	-0.6	1.4	1.5	Dec-10
ABS Emerging Markets Strategic Portfolio	90,771,250	1.4		-1.0	2.3	-6.1				-14.5	Nov-21
Columbia Emerging Markets Equity	93,793,177	1.5		-1.4	0.7	-10.0				-22.8	Aug-21
Polunin	128,732,000	2.1		-1.7	5.1	4.0	10.3	2.1		5.1	Oct-13
MSCI Emerging Markets (Net)				-1.7	1.1	-8.5	3.5	-0.7		2.1	
Lazard	146,482,719	2.3		1.9	11.7	10.4	13.7	2.1		3.2	Oct-13
MSCI Emerging Markets Small Cap (Net)				1.1	5.7	-3.0	15.3	2.6		3.9	
Total Fixed Income	1,602,438,484	25.6	27.0	-0.6	2.4	-0.9	0.6	1.9	2.2	3.0	Dec-10
Core Fixed Income	1,010,888,891	16.1	18.0	-0.8	2.3	-1.5	-0.8	1.8	2.1	3.8	Dec-04
AFL-CIO H.I.T.	44,032,000	0.7		-1.1	2.1	-3.5				-8.1	Dec-21
BlackRock SIO	353,257,500	5.6		-0.3	1.7	-0.4	1.8	2.3		2.4	Aug-15
Allspring Global	308,994,972	4.9		-1.0	2.9	-1.7	-3.2	1.2	1.7	3.8	May-05
Blmbg. U.S. Aggregate Index				-1.1	2.5	-2.1	-3.6	0.8	1.4	3.1	
IR&M	304,604,419	4.9		-1.0	2.4	-2.2	-0.6	2.0		2.2	Jul-15
IR&M Custom Benchmark				-1.1	2.3	-2.4	-1.0	1.8		1.8	

<sup>-</sup> Wells Asset Management is now Allspring Global.



<sup>-</sup> IR&M Custom Benchmark reflects Bloomberg Agg since inception through 04/30/2017, from 05/01/2017 to 9/30/2021 reflects 40% Bloomberg Agg/60% Bloomberg Intermediate TIPS and as of 10/1/2021 reflects 60% Bloomberg Agg/40% Bloomberg Intermediate TIPS.

### **TOTAL FUND PERFORMANCE DETAIL (NET)**

	Al	Allocation					Pe	rforman	ce (%)		
	Market Value (\$)	% of Portfolio	Policy(%)	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Value Added Fixed Income	591,549,593	9.4	9.0	-0.3	2.6	0.0	3.0	2.0	2.3	3.2	Dec-10
High Yield Income	378,684,941	6.0	5.0	-0.6	3.6	1.3	6.6	3.9	4.5	6.0	Jan-06
Crescent Capital	114,230,000	1.8		-0.6	3.4	0.6	3.5	2.6		3.4	May-15
50/50 S&P/LSTA Leveraged Loan/Bloomberg High Yield				-0.6	3.9	3.0	4.5	3.4		3.8	
Polen Capital	98,508,400	1.6		0.0	5.0	1.1	8.1	4.1		5.0	May-15
75% BC HY 25% S&P Leverage Loan				-0.7	3.8	1.5	3.7	3.3		3.8	
GoldenTree Multi Sector Opp Credit	165,092,700	2.6		-0.9	2.8	2.0	8.2	5.0		5.5	Dec-16
Blended Index				-0.4	3.9	3.7	4.7	3.5		3.9	
Morningstar LSTA US Leveraged Loan				-0.2	4.1	5.9	5.9	3.7		4.0	
Emerging Market Debt	212,864,652	3.4	4.0	0.1	1.0	-2.2	-2.4	-1.2	-1.9	-1.1	Nov-11
Aberdeen EMD Plus	212,864,335	3.4		0.1	1.0	-2.2	-2.4			-0.3	Dec-18
JP Morgan EMBI Global Diversified				-0.6	1.8	-1.5	-2.7			0.2	
Total Alternative Assets	1,676,553,821	26.8	26.0	0.1	-0.1	4.2	11.1	9.3	8.3	8.6	Dec-10
Hedge Fund Composite	307,505,615	4.9	5.0	0.6	2.2	3.9	6.4	3.8	2.9	3.5	Nov-04
Blackstone	148,442,600	2.4		0.2	1.0	4.5	6.4	4.5		4.4	Feb-18
Grosvenor	157,956,877	2.5		1.0	3.4	6.4	7.8	4.6		4.7	Jul-13
HFRI Fund of Funds Composite Index				0.2	1.3	1.3	5.4	3.0		3.3	
Hedge Fund Transition Account	762,651	0.0	0.0								
Real Estate Composite	664,897,216	10.6	10.0	0.0	-3.9	5.5	9.7	9.3	10.3	7.7	Sep-04
Private Equity & Debt	704,150,990	11.2	11.0	0.0	2.6	3.0	14.6	12.2	10.4	9.1	Jun-04
Cash	24,438,928	0.4	0.0	0.3	1.7	1.7	0.8	1.0	0.5	1.1	Oct-04

<sup>-</sup>Real Estate and Private Equity & Debt report on a quarterly basis and are lagged one quarter. Valuations are as of 12/31/2022.

-The Hedge Fund Transition Account is an estimation of the total values redeemed from the hedge fund portfolio and is subject to change.



<sup>-</sup>The Blended Index Benchmark consists of 30% ML HY II/ 30% S&P LSTA / 25% HFRI RV FI/ 15% BAML ABS.

<sup>-</sup>DDJ is now Polen Capital

<sup>-</sup>EnTrust Peruvian Bonds is included in the Hedge Fund Transition Account value.

#### **DISCLAIMERS & DISCLOSURES**

Past performance is no guarantee of future results.

Returns for pooled funds, e.g. mutual funds and collective investment trusts, are collected from third parties; they are not generally calculated by NEPC. Returns for separate accounts, with some exceptions, are calculated by NEPC. Returns are reported net of manager fees unless otherwise noted.

A "since inception" return, if reported, begins with the first full month after funding, although actual inception dates (e.g. the middle of a month) and the timing of cash flows are taken into account in Composite return calculations.

NEPC's preferred data source is the plan's custodian bank or record-keeper. If data cannot be obtained from one of the preferred data sources, data provided by investment managers may be used. Information on market indices and security characteristics is received from additional providers. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within. In addition, some index returns displayed in this report or used in calculation of a policy index, allocation index or other custom benchmark may be preliminary and subject to change.

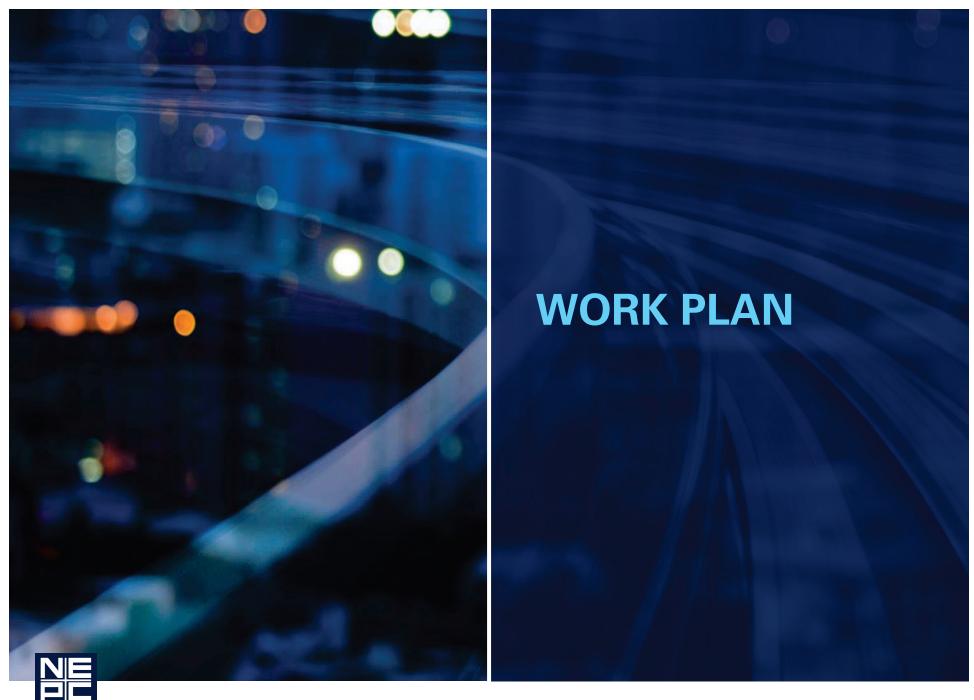
All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.

The opinions presented herein represent the good faith views of NEPC as of the date of this presentation and are subject to change at any time. Neither fund performance nor universe rankings contained in this report should be considered a recommendation by NEPC.

This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Source of private fund performance benchmark data: Cambridge Associates, via Refinitiv





#### **2023 SEARCH PLANNING**

	June	July	August	Sept.	Oct.	Nov.	Dec.
Private Debt							
Private Equity Infrastructure	Presentations						
Real Estate		Review Respondents	Analysis/ Presentations	Analysis / Presentations			
Private Equity Separate Account	Issue Search		Review Respondents	Analysis/ Presentations			
Custodian				Issue Search	Review Respondents	Analysis / Presentations	



<sup>\*</sup> The proposed search timeline is subject to change, and dates may be modified as needed

#### **PROPOSED WORK PLAN – 2023**

	May	June	July	August	Sept.	Oct.	Nov.	Dec.
TOTAL PLAN								
Asset Allocation								
Performance	Q1			Q2			Q3	
Education/Review								
TRADITIONAL								
Search/ Presentations					Issue Custody Search	Review Respondents	Analysis/ Presentations	
HEDGE FUNDS								
Program Planning								
Search/ Presentations								
PRIVATE MARKETS								
Program Planning		Issue PE SA Search						Pacing Plan
Search/ Presentations	Infrastructure Search Analysis	Infrastructure Presentations		Review PE SA Respondents	PE SA Presentations			
Performance	Q4			Q1			Q2	
REAL ESTATE								
Program Planning								Pacing Plan
Search/ Presentations			Search Review (Opp & Debt)	Analysis/ Presentations	Analysis/ Presentations			
Performance	Q4			Q1			Q2	



#### **HISTORICAL WORK PLAN – 2023**

	JANUARY	FEBRUARY	MARCH	APRIL
TOTAL PLAN				
Asset Allocation		AA Review New Policy Targets - Core Bonds (+2%) - Non-US Equity (-1%) - Large Cap (-1%)		
Other/ Education		NEPC Market Outlook		
TRADITIONAL				
Traditional Commitments		Small Cap Value Hired Mesirow Terminated Bernzott		
Traditional Review	Small Cap Value Search Review		Small Cap Search Review (Core & Growth)	
HEDGE FUNDS				
HF Review				
HF Commitments				
PRIVATE MARKETS				
PE/PD Program Planning			- Search Planning - PD Search Review	Infrastructure Review
PE/PD Commitments	<u>Diverse FoF</u> Grosvenor (\$20) Muller & Monroe (\$15) Recast (\$5)			<u>Direct Lending</u> Kayne Anderson (\$35) Blue Torch (\$15)
REAL ESTATE				
RE Program Planning				
RE Commitments				



#### **HISTORICAL WORK PLAN – REVIEW OF 2022**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	ОСТ	NOV	DEC
TOTAL PLAN	•		•		•				•		•	•
Asset Allocation		• AA Review • New Targets - LC: 18% - HY: 5%										
Other/ Education	Market     Outlook     Fee     Analysis     IPS Review	Approved Updated IPS	Proxy Voting Info	RE Update		New Actuarial Exp. Return: 6.9%						
TRADITIONAL												
Traditional Commitments												
Traditional Review		Issued High Yield Search			HY Mgr. Updates					Issued Small Cap Search		Small Cap Search Review
HEDGE FUNDS												
HF Review												
HF Commitments												
PRIVATE MARKETS	1										'	
PE/PD Program Planning			Issued Debt Search			Reviewed PD Respondents		Issued PE Search			Diverse FoF Presentations	Pacing Plan
PE/PD Commitments							\$20m - 400 Capital \$20m - HarbourVest					
REAL ESTATE												
RE Program Planning						RE Review Issued Search						Pacing Plan
RE Commitments									\$15m - Alidade \$25m - Davis \$25m - TA			





PROPRIETARY & CONFIDENTIAL

#### **RESPONDENTS – INCLUDED IN REVIEW**

	Firm	Fund	Target Final Close	Target Net IRR	Target Fund Size (M)	Geographic Focus	Industry Focus
			Energ	У			
	Bridge IG	Solar Energy Development Fund	Q2 2024	20-22%	\$500	U.S.	Solar Energy
*	The Carlyle Group *	Renewable & Sustainable Energy Fund II	Q4 2023	9-14%	\$2,000	Global	Renewable Energy
	NGP *	NGP Natural Resources XIII	Q3 2024	20%	\$2,500	N. America	Mid/Upstream Energy
	Kayne Anderson *	Kayne Private Energy Income Fund III	TBD	20%	\$1,500	N. America	Upstream Energy
*	IFM Investors	IFM Global Infrastructure Fund	N/A open-end	8-12%	N/A	Global	Diversified
	IFM Investors	IFM Net Zero Infrastructure Fund	N/A open-end	8%	N/A	Global	Diversified
*	Macquarie	Infrastructure Partners VI	Q3 2023	10-12%	\$7,000	N. America	Diversified
	Macquarie	GIG Energy Transition Solutions SCSp	6/30/23	13-15%	\$2,000	Global	Diversified
	Stonepeak	Stonepeak Opportunities Fund	Q3 2023	10-15%	\$2,500	Global	Diversified
			Seconda	ries			
*	Ares	Secondaries Infrastructure Solutions III	Q4 2023	11-14%	\$2,000	Global	Secondaries
*	Pantheon	Global Infrastructure Fund IV	Q3 2023	11-13%	\$3,000	Global	Secondaries & Co-Investments
	Hamilton Lane *	Infrastructure Opportunities Fund II	Q1 2024	12-14%	\$1,000	Global	Secondaries
			Transport	ation			
	EnTrust *	Blue Ocean 4Impact	12/31/22	20%	\$1,500	Global	Maritime

<sup>\*</sup> Current BRS Manager

<sup>★</sup> NEPC FPL Manager

<sup>-</sup> Expected final close dates are subject to change

#### **RESPONDENTS - ENERGY**

Fund	Strategy
The Carlyle Group Renewable & Sustainable Energy Fund II	<ul> <li>Value-add focused Fund, investing in renewable and sustainable energy, including energy transition opportunities</li> <li>The Fund will mainly focus on two sectors:         <ol> <li>Renewables: Solar, wind, battery energy storage systems</li> <li>Energy Transition: Electric vehicles, distributed energy resources, and industry decarbonization technology</li> </ol> </li> </ul>
Kayne Anderson Private Energy Income Fund III	<ul> <li>Sizable equity investments in a small number of private energy companies</li> <li>Will invest in 4-6 high-quality management teams with experience to pursue large acquisitions</li> <li>Will target oil and gas assets that have a meaningful percentage of value attributable to proved developed producing ("PDP") reserves</li> <li>Assets will be in basins, where the portfolio companies can build scale over time</li> </ul>
NGP Natural Resources XIII	<ul> <li>Core acquisition and development strategy in the upstream and midstream sectors</li> <li>Focus on growth equity</li> <li>Portfolio of 10-15 energy companies that generate strong returns with a focus on cash distributions</li> <li>High-quality upstream/midstream companies located in basins across North America</li> </ul>



#### **RESPONDENTS - DIVERSIFIED**

Fund	Strategy
<b>IFM</b> Global Infrastructure Fund	<ul> <li>Target Sectors: transportation, midstream and utilities sectors in the U.S. and Europe.</li> <li>Characteristics of Target Investments: monopoly-like features, strong market positions, reliable regulatory environment, high barriers to entry, limited demand-elasticity, exposure to inflation and economic growth, and/or long lives</li> </ul>
<b>IFM</b> Net Zero Infrastructure Fund	<ul> <li>Invest in infrastructure assets that seek to accelerate the transition to a net-zero economy, while generating attractive risk-adjusted returns</li> <li>Target Sectors: renewable power, electrification, low carbon fuels, and carbon capture.</li> </ul>
Macquarie Infrastructure Partners VI	<ul> <li>Will invest through equity and equity-related infrastructure investments in North America.</li> <li>Target Sectors: transportation, waste management, digital, utilities &amp; energy, and social infra</li> <li>Will concentrate on stable, income producing assets with minimal J-curve or commodity exposures, and minimal correlation to economic market conditions.</li> </ul>
<b>Macquarie</b> GIG Energy Transition Solutions	<ul> <li>Seeks to generate attractive risk-adjusted returns through equity investments in a diversified global portfolio of sustainable infrastructure and real assets</li> <li>Investments in companies/assets well positioned for growth and, through their operations, contribute towards accelerating the green energy transition</li> <li>Target Sectors: clean grid, clean transportation, hydrogen and renewable fuels, carbon capture, circular economy, and infrastructure-enabling technologies</li> </ul>
Stonepeak Opportunities Fund	<ul> <li>Middle-market focused, diversified infrastructure strategy, investing in OCED countries</li> <li>Target Sectors: digital/social infrastructure, energy transition, transportation &amp; logistics,</li> <li>Applies thematic backdrop to sector and asset targets, emphasizing downside protection and ESG.</li> </ul>



## RESPONDENTS - SECONDARIES & TRANSPORTATION

	Fund	Strategy
ies	Ares Secondaries Infrastructure Solutions III	<ul> <li>Will invest in infrastructure and real assets secondary market transactions</li> <li>Acquire interests in infrastructure funds, partnerships, and other structured investment vehicles that own infrastructure and real assets related assets</li> <li>Target Sectors: utilities, transportation, communication, renewables, energy, commodities</li> <li>Investing in mature funds with goal of achieving immediate cash flows and return of capital</li> <li>Mature portfolios offer insight into the execution of the manager and performance of assets</li> </ul>
Secondaries	Pantheon Global Infrastructure Fund IV	<ul> <li>Global infrastructure investments through secondaries, GP-led secondaries, and co-investments</li> <li>Diverse across sectors, geography, vintage-year and GPs</li> <li>Sectors: digital, power, utilities, transportation, renewables, and social infrastructure</li> <li>Geography: North America, Europe, and Asia</li> </ul>
	Hamilton Lane Infrastructure Opportunities Fund II	<ul> <li>Diversified core-plus and value-add infrastructure equity and secondary positions</li> <li>Will leverage the scale of the Manager's infrastructure platform to drive deal flow and gain access to opportunities</li> </ul>
_		
ransportation	<b>EnTrust</b> Blue Ocean 4Impact	<ul> <li>Maritime infrastructure strategy focused on reducing GHG emissions and pollutants</li> <li>Invests solely in Purus Marine, a company established by EnTrust to execute the strategy</li> <li>Purus Marine expects to acquire/own a fleet of 100+ maritime assets</li> <li>Assets are expected to use solutions to reduce/eliminate carbon emissions (fully-electric and battery hybrid propulsion, CO2 capture devices, bio-fuel blends)</li> <li>Assets are expected to be contracted mid/long-term to high quality end users</li> </ul>



#### **RECENT SEARCHES & COMMITMENTS**

Search/Asset Class	Manager	Mandate Size (millions)
	2021	·
Emerging Markets Equity (Growth)	Columbia Threadneedle	\$120
Emerging Markets Equity (Core)	ABS	\$115
Fixed Income (Core)	AFL-CIO	\$50
Private Equity (Diverse FoF)	Grosvenor Barings	\$25 \$20
Private Equity (Secondaries)	Hamilton Lane	\$15
Private Debt (Direct Lending)	WesternTech GoldenTree	\$11 \$50
Real Estate (Value-Add)	TerraCap Mesirow	\$40 \$10
Real Estate (Opportunistic)	Centerbridge Kayne Anderson	\$30 \$30
	2022	
Private Debt (Asset-Based Lending)	400 Capital	\$20
Private Debt (Opportunistic)	HarbourVest	\$20
Real Estate (Value-Add)	Alidade Davis TA Realty	\$15 \$25 \$25
	2023	
Private Equity (Diverse FoF)	Grosvenor Muller & Monroe Recast	\$20 \$15 \$5 (\$10)
Private Debt (Direct Lending)	Kayne Anderson Blue Torch	\$35 \$15



#### INFORMATION DISCLAIMER

Past performance is no guarantee of future results.

The goal of this report is to provide a basis for substantiating asset allocation recommendations. The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.

Information on market indices was provided by sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.

All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.

This report is provided as a management aid for the client's internal use only. This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

