



COMMONWEALTH OF PENNSYLVANIA
PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Public Investment Memorandum

GCM Grosvenor Customized Infrastructure Strategies II, L.P.

Infrastructure Commitment

William P. Stalter
Senior Portfolio Manager

November 8, 2016



Recommendation:

Staff, together with Courtland Partners, Ltd., recommends the Board commit up to \$100 million to GCM Grosvenor Customized Infrastructure Strategies II, L.P. ("Fund" or "CIS II"). GCM Grosvenor ("GCM", "Grosvenor" or the "Firm") will seek to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified, global portfolio of primarily core and core plus infrastructure investments. CIS II will target primary fund investments, secondary purchases of investments in funds ("secondaries"), and equity and debt co-investments. Investors committing at least \$75 million to the Fund will have opt-out rights in respect to primary fund investments. Consistent with PSERS' practice of not investing in traditional primary fund-of-funds, staff recommends PSERS opt-out of the Fund's primary investments.

Firm Overview:

GCM Grosvenor is one of the world's largest and most diversified independent alternative asset management firms, with over \$48 billion in assets under management. GCM Grosvenor offers comprehensive public and private markets products and provides clients with investment and advisory choices including hedge funds, private equity, infrastructure and real estate. GCM Grosvenor launched its first investment portfolio, a multi-manager portfolio of hedge funds, in 1971.

GCM Grosvenor Private Markets invests in primary fund investments, secondary fund investments and co-investments across the private equity, infrastructure and real estate sub-asset classes. GCM Grosvenor is one of the largest private markets fund investment and co-investment managers globally, with over \$23 billion in assets under management. GCM Grosvenor Private Markets and its predecessors have been managing private equity investment portfolios since 1999. GCM Grosvenor currently manages \$3.5 billion of infrastructure assets of behalf of its institutional clients. The table below depicts the various infrastructure investment programs sponsored or managed by GCM Grosvenor:

| Investment Program | AUM |
|-------------------------------|--------------------------------------|
| CIS I | \$400 million |
| CIS II | \$440 million (\$650 million target) |
| Separate Accounts | \$2.0 billion |
| Other Infrastructure Programs | \$616 million |

Market Opportunity:

The public sector has historically been responsible for financing and operating most infrastructure assets, which are defined as the permanent, essential assets that a society requires to facilitate the orderly operation of its economy. Over the last decade, a supply and demand mismatch for infrastructure assets has emerged, in which the global demand for modern and well-maintained infrastructure, driven in part by population growth and demographic change around the world, is not being met by the public sector, which has historically been the source of supply of infrastructure assets. The resulting infrastructure gap has created an attractive opportunity for private investors. In addition, the long-term nature of infrastructure assets makes the asset class particularly well suited for investors seeking to generate attractive risk-adjusted returns, as infrastructure investments can provide stable, long-term cash flows and potentially lower the risk of a broader investment portfolio given its limited correlation with other asset classes. Certain infrastructure investments also have the potential to provide a hedge against inflation given the regulated and/or contracted nature of many infrastructure assets, which is increasingly attractive to investors like PSERS, seeking to match long-term liabilities.

A recent global infrastructure spending outlook paper by PricewaterhouseCoopers (PwC) states "Infrastructure spending has begun to rebound from the global financial crisis and is expected to grow significantly over the coming decade. Worldwide, infrastructure spending will grow from \$4 trillion per year in 2012 to more than \$9 trillion per year by 2025. Overall, close to \$78 trillion is expected to be spent globally between 2014 and 2025. Megacities in both emerging and developed markets—reflecting shifting economic and demographic trends—will create enormous need for new infrastructure."



Portfolio Fit:

A commitment to the Fund will be allocated to the Infrastructure portion of PSERS' Real Assets portfolio. As of October 2016, PSERS' target allocation to the Infrastructure asset class is 2%. PSERS' current exposure has been achieved by investing in public markets. Additionally, in May 2016, PSERS' Board of Trustees approved a \$100 million commitment to International Infrastructure Finance Company II, L.P. ("IIFC II"), a closed-end infrastructure lending fund. PSERS' staff expects to close on the CIS II commitment by YE2016 and the IIFC II commitment in early 2017.

Investment Strategy:

CIS II is designed to provide investors with the potential benefits of infrastructure investing, including current yield, long-term risk-adjusted returns, a hedge against inflation and low correlation to broader markets, while also seeking to mitigate the challenges associated with infrastructure investing, including the emerging nature of the asset class, difficulties creating an appropriately diversified portfolio, limited access to information and sometimes high investment minimums. CIS II will seek to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primarily core and core-plus infrastructure funds and equity and debt co-investments.

CIS II will follow a strategic, comprehensible approach to portfolio construction focused on maximizing returns while also seeking to minimize volatility. As noted previously, it is intended that PSERS will exercise its opt-out rights in respect to the Fund's primary fund investments. The resulting investment portfolio will be diversified across secondary fund investments, as well as equity and debt co-investments. These investments will be diversified geographically, with an emphasis on North America, Western Europe and other OECD countries. The Fund will target investments in power generation, energy infrastructure, transportation, regulated utilities, social / PPP and telecommunications.

| Investment Types | Attributes |
|---|---|
| Secondary Fund Investments | Provides the opportunity to purchase on a secondary basis another investor's limited partnership interest in an infrastructure fund that has already held its final closing. The inclusion of secondaries in an infrastructure portfolio offers the opportunity for enhanced returns due to blind pool risk mitigation, J-Curve mitigation and vintage year diversification. In addition, committing to a mature infrastructure fund through a secondary investment helps avoid the upfront fee drag (typically present in the early years of a fund), while providing mature cash yield and potential near-term exits. |
| Co-investments | Provides greater control over the sector, stage or geographic diversification of a portfolio; J-Curve mitigation; and early cash yield. These benefits help to enhance returns and provide visibility into the operations of a manager. Co-investing allows an investor the ability to access investment opportunities in a fee-efficient manner by potentially saving on a layer of fees at the underlying fund level (e.g., limited or no management fee and/or carried interest to co-investment sponsors) |
| Primary Fund Investments¹ | Provides access to fund managers, co-investment opportunities, subsequent funds and to potential secondary opportunities. Investors opting-out of the Fund's primary fund investments stand to benefit as primary fund investments can potentially enhance deal flow. |

¹ PSERS intends to exercise its opt-out rights for Primary Fund investments

Investment Structure:

Institutional Fund investors will invest in GCM Grosvenor Customized Infrastructure Strategies II, L.P., a Delaware Limited Partnership, which will be comprised of parallel entities formed to accommodate institutional investors, high net worth investors and senior management of GCM Grosvenor.

The Fund will be managed by GCM Customized Fund Investment Group, L.P., a Delaware limited partnership and an affiliate of the General Partner.



Investment Instruments:

Investments are expected to be interests in infrastructure funds and infrastructure co-investments.

Investment Team:

GCM Grosvenor Private Markets team includes a dedicated infrastructure team led by seven senior investment professionals: Vikram Bhaskar, Roger Ammoun, Michael Rose, Charles Schalliol, Akhil Unni, Ravi Parekh and Javier Matallana, who are supported by a number of investment professionals with specialized infrastructure and infrastructure-related experience, as well as by the broad capabilities of the firm, which includes legal, operational, technology, client service and human resources teams. The GCM Grosvenor dedicated infrastructure investment team is led by senior investment professionals with significant prior experience across nearly all types, stages and sectors of the infrastructure asset class, which will provide the Fund with seasoned, well-rounded investment expertise. The investment team has an average of 19 years' experience in infrastructure.

During 2015, 30 employees participated in the general firm wide carry pool, five of whom are women and 13 of whom are minorities.

Investment Highlights:

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| Prudent Portfolio Construction |
| Building a diversified infrastructure portfolio is key to mitigating investment risk. The diversified pool of investments in which PSERS will participate will include secondary fund investments, as well as equity and debt co-investments across a variety of infrastructure sub-sectors, capital structures and OECD geographies. GCM Grosvenor's approach to creating a balanced portfolio for CIS II is intended to be consistent with how capital was deployed in CIS I. The CIS platform has provided investors exposure to more than 100 underlying portfolio companies across multiple continents and sub-sectors. |
| Sourcing and Due Diligence |
| As an investor in infrastructure since 2003, GCM Grosvenor's comprehensive sourcing and due diligence process is well regarded in the industry. GCM Grosvenor has a team of experienced investment professionals who are highly active in the infrastructure market and use multiple sourcing channels from a broad network within the asset class. Their investment professionals have deep sector expertise and can make informed investment decisions. With a stable source of investing capital, GCM Grosvenor is often invited as a preferred bidder, in what is a highly-competitive investing environment. |
| Benefits of the GCM Grosvenor Platform |
| GCM Grosvenor maintains a Global Investment Council. This 14-member Council is composed of GCM Grosvenor Investment leaders from across alternative asset classes and geographies. This Council brings together diversified expertise, synthesizes data to guide firm wide views and monitors firm wide investment activity. This permits intellectual capital to be shared across the organization and augments the GCM Grosvenor investment process. |

Investment / Risk Considerations:

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| Competition for Investments |
| Identifying, completing and realizing attractive investments in portfolio funds and co-Investments by the Fund and in portfolio companies by the portfolio funds is highly competitive. GCM Grosvenor expects the Fund and each portfolio fund to compete for access to investments with other private equity investment funds, direct investment firms, individual and institutional investors and merchant banks. This competition may have an adverse impact on the length of time that is required for the Fund or any portfolio fund to become fully invested. GCM Grosvenor has demonstrated patience in making investments over the course of its investing history. The investment period for CIS II concludes three years from the Fund's final close, affording Fund management ample time to be selective in making investments on behalf of CIS II. |
| Non-U.S. Investment Risks |
| The Fund and each portfolio fund may invest a portion of its committed capital in investments outside the United States. Risks related to Fund investments include inflation, currency exchange rate fluctuations, economic, social and political risks, risk of instability, nationalization, exchange control regulations, restrictions on foreign |



investments and repatriation of capital. Further, unfavorable diplomatic developments, varying levels of antitrust, industry or other governmental regulation, as well as the possible imposition of foreign taxes or confiscatory taxation may affect the composition and/or performance of the Fund. GCM Grosvenor is experienced and expert in investing in non-U.S. markets. GCM Grosvenor maintains offices outside the U.S., including London, Tokyo, Hong Kong and Seoul. Additionally, GCM Grosvenor will provide full currency exposure transparency to investors, affording each the ability to manage currency risk at their discretion.

Finance Committee Disclosure:

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| Relationship with Courtland Partners, Ltd: | None Disclosed |
| Introduction Source: | Fund Sponsor |
| Placement Agent: | None Disclosed |
| PA Political Contributions: | None Disclosed |
| PA Presence: | No offices in PA, however one CIS platform fund investment does own a position in a marine terminal company located in Philadelphia, PA |
| Potential Conflicts: | We are not aware of GCM Grosvenor having any investment conflicts |
| First Time Fund With PSERS: | Yes |
| PSERS Allocation Implementation Committee Approval: | November 8, 2016 |

Oversight Responsibility:

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|-----------------------------|---|
| Investment Office: | Charles J. Spiller Deputy CIO, Non-Traditional Investments William P. Stalter Senior Portfolio Manager |
| External Consultant: | Courtland Partners, Ltd. |

COURTLAND PARTNERS, LTD.

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November 2, 2016

Board of Trustees
Pennsylvania Public School Employees' Retirement System
5 North 5th Street
Harrisburg, PA 17101

RE: GCM Grosvenor Customized Infrastructure Strategies II, L.P.

Dear Trustees:

Courtland Partners, Ltd. ("Courtland"), having been duly authorized by the Board of PSERS, has evaluated GCM Grosvenor Customized Infrastructure Strategies II ("CIS II" or the "Fund"). CIS II seeks to provide a diversified solution for investors seeking to access the breadth of the infrastructure asset class.

CIS II is designed to provide investors with the potential benefits of infrastructure investing, including current yield, long-term risk-adjusted returns, a hedge against inflation and low correlation to broader markets. The Fund also seeks to mitigate the challenges associated with infrastructure investing, including the emerging nature of the asset class, difficulties creating an appropriately diversified portfolio, limited access to information and high investment minimums. CIS II seeks to generate stable, long-term yield and attractive risk-adjusted returns by investing in a diversified portfolio of primarily core and value-add infrastructure funds and equity and debt co-investments.

CIS II's overall infrastructure portfolio expects to be diversified across many portfolio characteristics, including:

- Type: Primary fund investments, secondary purchases of investments in funds ("secondaries"), equity and debt co-investments;
- Geography: North America, Western Europe and the Rest of World ("RoW") – primarily OECD countries;
- Sector: Power generation, energy infrastructure, transportation, regulated utilities, social/public private partnerships ("PPP's"), telecommunication; and
- Stage: Brownfield, greenfield.

For CIS II, GCM Grosvenor seeks to follow a strategic, coherent approach to portfolio construction focused on maximizing returns, while also seeking to minimize volatility. Total Fund size is targeted at \$650 million with net returns targeted in excess of 10%.

CIS II allows for the ability to opt out of primary fund investments with a minimum commitment of \$75 million, allowing the investor to only invest in the Fund's secondaries and co-investments, which is PSERS intent.

Overall, CIS II seeks to make commitments in up to ten infrastructure funds on a primary basis, representing 40-60% of the portfolio. PSERS intent is to opt-out of these primary fund investments.

CIS II, targets 10% - 30% of the portfolio for secondaries, seeking to balance the benefits of each secondary investment opportunity with the potential risks from the “winner’s curse.” Approximately ten different secondary purchases are expected to be targeted within a portfolio.

CIS II will target a portfolio of approximately 10 to 15 co-investments, representing 20-40% of CIS II. Co-investing allows an investor the ability to access quality investment opportunities in a fee-efficient manner by potentially saving on a layer of fees at the underlying fund level (*e.g.*, paying limited or no management fee and/or carried interest to co-investment sponsors).

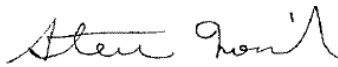
Courtland’s recommendation is based upon the following factors and is made within the context of PSERS’ investment guidelines.

- Flexible investment mandate which allows for primary fund investments, secondaries, equity and debt co-investments;
- Creates a well-diversified portfolio with a relatively small amount of capital;
- Ability to opt out of CIS II’s primary fund investments at a \$75 million investment level while remaining in the Fund’s secondaries and co-investments, which is PSERS intent.
- Experienced, skilled and disciplined investment and management team;
- Successful investment track record with CIS I;
- Competitive fee structure, particularly if primary fund investments are opted-out; and
- Firm reputation, relationships and experience.

Based on the above, Courtland recommends that PSERS commit up to \$100 million to the Fund. Courtland makes this recommendation considering GCM Grosvenor’s qualifications and PSERS’ overall investment guidelines.

This recommendation is given solely for the benefit of PSERS and cannot be relied upon by other investors considering an investment in the Fund, since their needs, objectives and circumstances may not be identical to those of PSERS. The scope of this recommendation is limited to the investment merits of the Fund. Courtland does not provide legal or other non-investment-related advice.

Sincerely,



Steven Novick
Principal-Chief Operating Officer

COURTLAND PARTNERS, LTD.