

CALSTRS

CALIFORNIA STATE TEACHERS' RETIREMENT SYSTEM

INFRASTRUCTURE INVESTMENT POLICY

L. Infrastructure Investment Policy

EXECUTIVE SUMMARY

In accordance with the CalSTRS Investment Policy and Management Plan (IPMP) the California State Teachers' Retirement System Board, has established an allocation for investment in infrastructure, also known as infrastructure investments, an illiquid equity-related asset. The primary objective for investment in infrastructure is to improve diversification of the overall investment Portfolio. The Infrastructure Investment portfolio will also have secondary objectives: to achieve a rate of return greater than the actuarial earnings rate assumption, to provide a stable cash flow to the investment Portfolio, to hedge against long-term liabilities and to provide a hedge against inflation.

The Infrastructure portfolio assets are to be invested, administered and managed in a prudent manner for the sole benefit of its participants and beneficiaries, in accordance with the California Constitution, the California State Teachers' Retirement Law and other applicable statutes. No investment instrument or activity prohibited by the IPMP shall be authorized for the Infrastructure portfolio. The portfolio can include limited partnerships, direct investments, co-investments, and secondary interests.

The design of the CalSTRS Infrastructure Investment Policy ensures that investors, managers, consultants, or other participants selected by CalSTRS take prudent and careful action while managing the portfolio. The purchase, management, and sale of all types of infrastructure investments is performed by external professionals/managers, who are monitored and evaluated by internal investment officers, an external infrastructure consultant, and/or independent fiduciaries. CalSTRS believes that environmental, social and governance (ESG) issues can affect the performance of our investments. As a result, CalSTRS Investment Policy for Mitigating Environmental, Social, and Governance Risks has been developed as a tool that both internal and external investment managers are expected to use to assess the impact of ESG risks when making an investment on behalf of CalSTRS. The internal investment officers and independent fiduciaries operate under the direction of the Chief Investment Officer (CIO). Review of the portfolio will fall under the general consultant, who reports directly to the Investment Committee. If a specialty asset class specific consultant is retained, that consultant would also report directly to the Investment Committee.

As with all other plan assets, these policies cannot be altered without explicit direction from the Board.

PROGRAM OBJECTIVES

The strategic objectives of the Infrastructure portfolio are as follows:

- A. To provide improved diversification to the overall CalSTRS Investment Portfolio.

- B. To generate an enhanced yield to the actuarial earnings rate assumption and provide stable cash flows.
- C. To provide a hedge for long-term liabilities.
- D. To provide a hedge against inflation.
- E. To preserve investment capital.
- F. To act as a responsible steward of infrastructure investments through responsible contracting and environmental practices, efficient operation of assets, and production of quality services and products.

PERFORMANCE OBJECTIVES

The Infrastructure portfolio shall be managed over the long-term to accomplish the following:

Exceed a blended weighting of the private infrastructure benchmark and a publicly listed benchmark;

1. Private infrastructure to exceed, on a net-of-fees basis, a target return equal to the U.S. Consumer Price Index for all Urban Consumers (“CPI”) plus four percent (4%) while maintaining an appropriate level of diversification to mitigate risk.
2. Publicly listed strategies to exceed the relevant public market benchmark selected for the strategy.

PROGRAM BENCHMARK

The Infrastructure portfolio’s program benchmark is a blend of the private and publicly listed infrastructure benchmarks. Additional criteria will be applied to the performance of individual portfolio segments, investment managers, investments having a focus on a particular subsector or geographic location, and for investments having higher risk categories. As appropriate, customized benchmarks will be used to measure performance of investments within the portfolio.

PROGRAM STRUCTURE

The asset allocation target and range for the portfolio shall comply with the guidelines set forth in the IPMP. Adjustments from actual to target allocation shall be implemented within a time frame consistent with the provisions set forth in the IPMP.

Portfolio Diversification

Diversification within the portfolio is critical to control risk and concentrations and to maximize returns. The specific investments shall be aggregated, evaluated, and monitored to control unintended biases. Diversification can occur across a variety of parameters, as described below:

Infrastructure Sectors

Infrastructure is characterized by investment opportunities within various industries. The Infrastructure portfolio may contain investment opportunities within, but not limited to, the following infrastructure sectors:

- a. Energy resources and utilities – clean energy, electricity, gas, geothermal, hydrocarbons, pipelines, power distribution, storage, transmission, renewables, wind-generation, nuclear, etc.
- b. Transportation assets – bridges, railways, roadways, transit, tunnels, airports, etc.
- c. Ports – barges, terminals, etc.
- d. Water and waste – water distribution, storage, treatment, desalination, waste management, etc.
- e. Communications – broadcast towers, wireless towers, cable systems, satellite networks, etc.
- f. Other infrastructure investments that are aligned with CalSTRS’ strategic objectives.

The following types of assets will not be allowable investments for the Infrastructure portfolio: prisons and domestic investments in K-12 schools. Any uncertainty will be reviewed by the Chief Investment Officer before consideration of a transaction and/or presented to the Investment Committee before consideration of a transaction.

Strategic Objectives

Over the long-term, the Infrastructure portfolio shall be divided into four portfolio sub-classes: (1) core; (2) value-added; (3) opportunistic and (4) publicly listed. The strategic objective of the core portfolio is to produce stable current income and market level returns commensurate with a low to moderate level of risk. The value-added portfolio is expected to enhance the performance of the Infrastructure portfolio, provide additional diversification and take on additional corresponding risk. The opportunistic portfolio may produce a higher return while introducing more risk due to the developmental/greenfield nature of underlying investments or their location outside of more developed markets/non-Organization for Economic Cooperation and Development (OECD). The publicly listed portfolio is expected to enhance diversification, performance, and liquidity of the Infrastructure portfolio. Assignment of an investment to a particular portfolio shall be based on the investment’s risk and return characteristics.

Allocation

Allocations to the core, value-added, opportunistic, and publicly listed portfolio sub-classes shall be made to maximize the total return to CalSTRS while mitigating risk. As a moderate risk investor, CalSTRS’ long-term allocation ranges and long-term target allocations to these portfolios shall be:

Portfolio Sub-Classification	Long-Term Allocation Range
Core	30% - 70%

Value-Added	20% - 60%
Opportunistic	5% - 25%
Publicly Listed	0% - 10%

The table above depicts the ranges for the various portfolio segments over the long-term. However, in response to changing market conditions, as well as other relevant factors, the actual allocation may vary within the recommended ranges, and may tilt defensively or aggressively toward the extreme ends of the ranges. A range has been set for each subclassification to provide capacity if the portfolio falls out of balance due to the illiquid nature of infrastructure assets and/or specific opportunities to tactically over and/or underweight based on compelling opportunities or fundamental issues.

From time to time, the actual allocations to the portfolio segments may fall outside the recommended ranges. In these instances, adjustments from the actual to the prescribed allocation range shall be implemented over a reasonable time frame (within a one-to-three-year period, unless otherwise specified), with ample consideration given to preserving investment returns to CalSTRS.

As investments in the value-added and opportunistic portfolios mature over time, their characteristics may become more like core assets and value-added assets, respectively. CalSTRS Staff and the consultant shall monitor the portfolio for instances when changes of the classification of certain investments are warranted. Reclassifications must be mutually agreed upon by staff and consultant.

Portfolio Development

Infrastructure investments are generally long-term investment opportunities and during volatile periods, short-term movements and tactics may be applied in managing the portfolio. From time to time, the actual allocations to the portfolio segments may fall outside the recommended ranges.

Geographic Regions

Investments in the Infrastructure portfolio will be made in various regions including: the United States (all regions), developed non-U.S. countries such as the United Kingdom, Japan, Western Europe, countries that are members of the Organization for Economic Co-operation and Development (“OECD”); and certain non-OECD countries regions such as Africa, Asia (non-Japan), the Caribbean, Central America, and South America in accordance with CalSTRS policies. To reduce risk, investments in the Infrastructure portfolio shall be located in the developed countries with limited non-OECD exposure.

Geographic Region	Allocation Range
United States	30% - 80%
OECD – Ex US	10% - 50%

Non-OECD	0% - 20%
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Consideration of infrastructure investment opportunities in the state of California will be given a preference ahead of other transactions. Investments in California must have the same market risk and return as any other similar infrastructure investment, and preference will not be given in legal or financial terms. While there are no specific guidelines for diversification based on exposure to geographies having similar economic profiles and/or industry concentrations, the Infrastructure portfolio shall be prudently diversified and monitored in this aspect.

Eligible Investment Types

Infrastructure investments may include direct or indirect equity investment in infrastructure (including all rights and interests incident thereto) such as: (i) interests in corporations, partnerships, and other entities whose primary business is the acquisition, development, and operation of the underlying infrastructure assets including publicly traded, or private infrastructure assets, and infrastructure operating companies; (ii) other debt instruments convertible to equity interest in infrastructure assets based on investment terms; (iii) and all other infrastructure related securities such as lower or un-rated tranches of pre-existing securitized or structured debt instruments such as mezzanine debt, which have equity features.

Eligible Ownership Vehicles

For CalSTRS to meet its objectives in the infrastructure asset class, staff will select appropriate vehicles with structural aspects that provide for maximum return and control while mitigating risk and cost, and the highest level of accountability on the part of management and alignment of interests with CalSTRS. For this reason, the following ownership vehicles are allowable:

Accounts

CalSTRS may enter into discretionary Accounts (e.g., separate accounts, joint ventures, club accounts, consortiums, etc.) with particular infrastructure investment managers, subject to pre-approved investment guidelines, whenever possible. Accounts will have varying levels of discretion determined by CalSTRS at the outset of the strategy. The Chief Investment Officer must approve any deviations from the approved guidelines. For this reason, investments shall be structured to facilitate alignment of interests between management and CalSTRS, management accountability, investment monitoring and liquidity.

In these Accounts, CalSTRS may have sole ownership of the asset(s) or may co-own the asset(s) with other institutional investors. CalSTRS will reserve the right to remove the infrastructure manager of any Accounts, with or without cause, in a timely manner. CalSTRS will seek to construct accounts with fee structures commensurate to the strategies being employed.

Commingled Funds

To enable greater diversification and to reduce risk, investments in the portfolio may be made in participation with other institutional investors. Infrastructure investments may be made in commingled vehicles including, but not limited to: (i) closed-ended funds such as group trusts, limited liability companies and limited partnerships; and (ii) open-ended funds.

The term of these closed-ended commingled funds should be no less than ten years. Investment agreements for closed-ended commingled vehicles shall include flexible provisions for removal of management by investors and interim liquidation of investor holdings.

Open-ended commingled fund investments shall include flexible redemption provisions, and staff will select managers with a history of successful redemptions that demonstrate a capability of providing liquidity.

In addition, to the extent possible, investments in closed-ended and open-ended commingled fund vehicles shall include an opportunity for investors to participate on advisory boards.

Co-Investments

CalSTRS may invest alongside commingled funds and accounts to increase tactical exposures to selected assets in preferred sectors or geographies. In these co-investment opportunities, the commingled fund shall co-invest capital in the venture, provide management of the asset, control the exit of the investment, and give CalSTRS greater access to the asset. CalSTRS will seek to reduce the blended aggregate fee load of the relationship with the investment manager with fee free co-investments when possible.

Publicly Listed Infrastructure Investments

Investments in publicly-traded vehicles can offer the total Infrastructure portfolio greater liquidity over private market opportunities; however, these investments tend to be more correlated with equities than private infrastructure investments.

Direct Investments

CalSTRS may invest directly by acquiring equity ownership of an infrastructure asset(s) without the use of an investment manager. Initial capital commitments to direct investments will follow the current investment processes and be subject to the usual internal periodic reviews. In these Direct Investments, CalSTRS may have sole ownership of the asset(s) or may co-own the asset(s) with other institutional investors. CalSTRS governance shall be structured to facilitate the appropriate alignment of interests, accountability, investment monitoring and liquidity.

RISK MANAGEMENT

Risks

The Infrastructure policy and Infrastructure investment activities are subject to the CalSTRS IPMP. Risks associated with investing in infrastructure projects, assets and vehicles will be mitigated sufficiently to allow for a reasonable risk adjusted return. Potential risks will be assessed during due diligence and internal review process. Risks will be reviewed, assessed and mitigated as appropriate.

Portfolio Leverage

CalSTRS shall employ leverage in the Infrastructure portfolio in order to enhance investment returns. Such leverage may exist at the portfolio, manager, or investment level. Since leverage also increases the volatility of the Infrastructure portfolio, careful consideration will be given to the impact of leverage on investment and portfolio risk. In addition, limitations on the amount of leverage at the individual asset or investment entity level, as well as debt service coverage requirements, will be negotiated or arranged wherever possible.

Leverage at the aggregate Infrastructure portfolio level shall be monitored and managed to maintain it at no higher than 60 percent (60%). To preserve the character of the asset class within CalSTRS' composite investment Portfolio, the aggregate asset class shall not be overleveraged. This shall be measured quarterly by comparing the principal amount of debt secured by infrastructure investments in the Infrastructure portfolio to the aggregate gross fair market value of the Infrastructure portfolio. To the extent that leverage exceeds the maximum, CalSTRS shall make reasonable efforts to reduce the leverage ratio to below the maximum allowable, within a reasonable time frame of one to three years.

Investment Life Cycle

The basic phases of an asset's life cycle can include predevelopment, development, construction, contracting, operating, rehabilitation, replacement, expansion, and retirement. In general, assets/projects in the earlier stages of their respective life cycles and redevelopments possess greater risks and thus should offer the Infrastructure portfolio incrementally higher expected returns. To reduce risk, the portfolio shall be appropriately diversified according to life cycle, with the core portfolio having a majority of investments that are brownfield, mature assets. The value-added and opportunistic portfolios may contain a higher concentration of investments undergoing development or redevelopment. The publicly listed portfolio shall be reasonably liquid and may not be as affected by the life cycles of underlying infrastructure assets.

Alignment of Interests

Preferred investments for CalSTRS will be those that exhibit the highest degree of management accountability and the greatest alignment of interests. As a matter of policy, CalSTRS will seek, but is not limited to, dedicated management teams that co-invest or have substantial ownership interest in the investment entity, controlling positions with provisions for liquidity and disclosure, as well as the mitigation of conflicts of interest.

Exit Strategy

Infrastructure assets are long life assets which provide long-term investment opportunities of ten years or more. As a result, infrastructure investments occasionally can be illiquid assets that may not have clearly defined redemption or termination provisions that offer investors immediate liquidity. While some infrastructure investments may have liquidation mechanisms, others may not have clearly defined liquidation events. The current marketplace for infrastructure provides liquidation opportunities via the sale of these investments or assets to investment funds and institutional investors. However, as the marketplace for infrastructure continues to expand, more exit strategy opportunities will be available to investors. An alignment of interests between management and investors as well as management accountability needs to be maintained with infrastructure investments.

Environmental Liability

CalSTRS encourages the prudent use of sustainable development methods and operational practices when reasonable and economically feasible. CalSTRS will prudently accept environmental exposure and potential liability in a manner consistent with overall industry standards applicable to institutional investors acting in a like manner under similar circumstances.

Concentration Limits

To ensure adequate diversification and to reduce risk, for the Infrastructure portfolio, no more than twenty-five percent (25%) of CalSTRS' Infrastructure portfolio as measured by the target IPMP allocation shall be allocated to a single investment manager subject to and consistent with Section I – Discretionary Authority below

Discretionary Authority

The approval decisions for infrastructure investments are delegated to staff with the following guidelines:

1. Staff has discretion to approve an initial commitment of CalSTRS equity to a new investment manager up to \$500 million, for accounts and commingled funds with an equivalent amount allowed for co-investments (as defined in the Eligible Ownership Vehicles section above) in each instance. For direct investments, Staff has the discretion to approve up to \$500 million for an initial investment. Staff then has discretion to approve subsequent commitments to the same investment manager up to a maximum of no more than twenty-five percent (25%) of the CalSTRS Infrastructure portfolio as measured by the target IPMP allocation. For direct investments, Staff has the discretion to make further commitments that would bring the total investment commitment up to a maximum of twenty-five (25%) of the CalSTRS Infrastructure portfolio.

Thereafter, if a single investment manager (or single direct investment) represents an excess of twenty-five percent (25%) of the CalSTRS Infrastructure Portfolio as measured by the target IPMP allocation, additional allocations or commitments to that manager may still be approved by staff, but are subject to review by the Investment

Committee if the Committee so requests. Staff will inform the Committee of firms under consideration via the transactions pipeline semi-annual report.

2. For Eligible Ownership Vehicles such as accounts, co-investments, and direct investments where CalSTRS has more investment discretion and where the investment managers are approved within the above referenced discretionary limits, or firms that have been selected through a request for proposal process, staff has discretion to approve individual assets so long as no single asset represents more than five percent (5%) of the CalSTRS Infrastructure portfolio as measured by the target IPMP allocation. Staff will inform the Investment Committee when such decisions are made through the semi-annual investment reports.

The approval decision under staff delegation shall be completed following a positive written recommendation by CalSTRS staff and either 1) a program advisor, or 2) an independent fiduciary. The investment analysis and due diligence will be conducted as described in the CalSTRS Infrastructure procedure guidelines.

Responsible Contracting Policies

CalSTRS has a deep interest in the condition of workers employed by the California State Teacher's Retirement System or CalSTRS and its advisors. CalSTRS, through the Responsible Contractor Policy (RCP), supports and encourages fair wages and fair benefits for workers employed by its contractors and subcontractors, subject to fiduciary principles concerning duties of loyalty and prudence, both of which further require competitive returns on CalSTRS' infrastructure investments. CalSTRS endorses small business development, market competition and control of operating costs. CalSTRS believes that an adequately compensated and trained worker delivers a higher quality product and service. CalSTRS requires its infrastructure managers to abide by the Responsible Contractor Policy on all applicable investments.

Domestic Public Sector Jobs

Staff will present to the Investment Committee for consideration any investment that would directly impact California public sector jobs. Staff shall secure a written agreement from the managers of any domestic investment vehicle (as described herein) that states, substantially in all material respects, that in circumstances where the investment vehicle is working with a state, local or municipal agency to establish public-private partnerships ("PPPs") or to bid on public offers for the sale, lease or management of public assets, the investment vehicle shall make every good faith effort to recognize the important role and contribution of public employees to the development and operation of such assets. In particular, the investment vehicle shall make good faith efforts to ensure that such transactions have a de minimis adverse impact on existing jobs. These efforts may include working directly with public employees, government officials or collective bargaining groups, as appropriate; in order to take such reasonable actions as may be within the (investment vehicle's) control to mitigate such potentially adverse effects. Compliance with this requirement shall be a key consideration by CalSTRS when reviewing any future investment opportunities with an investment manager.

In addition, in the event CalSTRS has determined that during the life of an investment vehicle there is a violation of the above stated terms, staff shall be precluded from making an investment in a follow on fund with the investment manager. If staff determines it appropriate, based on all the facts and circumstances, staff may recommend the investment in the subsequent fund to the Investment Committee, which will determine whether to invest in the follow-on fund consistent with its fiduciary duty.

MONITORING AND REPORTING

These assets will be valued in accordance with accounting industry best practices. Values will be marked-to-market as available. Performance will be reported semi-annually as part of the overall investment performance review.

Policy Monitoring and Modification

The general consultant or specialized infrastructure consultant, if retained, shall monitor the investment process for compliance with this policy and report to the CalSTRS Investment Committee on a semi-annual basis.

Investment Compliance provides investment policy oversight and will report to the Investment Committee Policy exceptions if they occur.

This Infrastructure investment policy shall be reviewed periodically to determine if modifications are necessary or desirable. Any changes shall be subject to the approval of the Investment Committee.

Link to Investment Terms Glossary at CalSTRS.com

Initial Adoption July 2008
Revised to provide a more clear and focused approach for the program, April 7, 2011
Revised sections related to excluded assets, co-mingled fund size limit, leverage and daily cash limits, November 2012
Revised to add ESG Risks policy reference on September 10, 2013
Revised to provide staff discretion and remove obsolete glossary terms, February 7, 2014
To revise the program benchmark and to provide more clarity to program guidelines, February 6, 2015
To primarily revise the benchmark objective and individual asset discretionary limit, April 8, 2016
Revised to reflect new reporting frequency on April 5, 2017
Revised to clarify program targets, discretionary limits, and concentration limits on November 1, 2017
Revised to reflect new format, ESG language, allocation ranges, portfolio development language, concentration limits, and exit strategy language on March 5, 2020
Revised to reflect new format, broad policy format changes, discretionary limit increases, and definitional language on July 7, 2022