



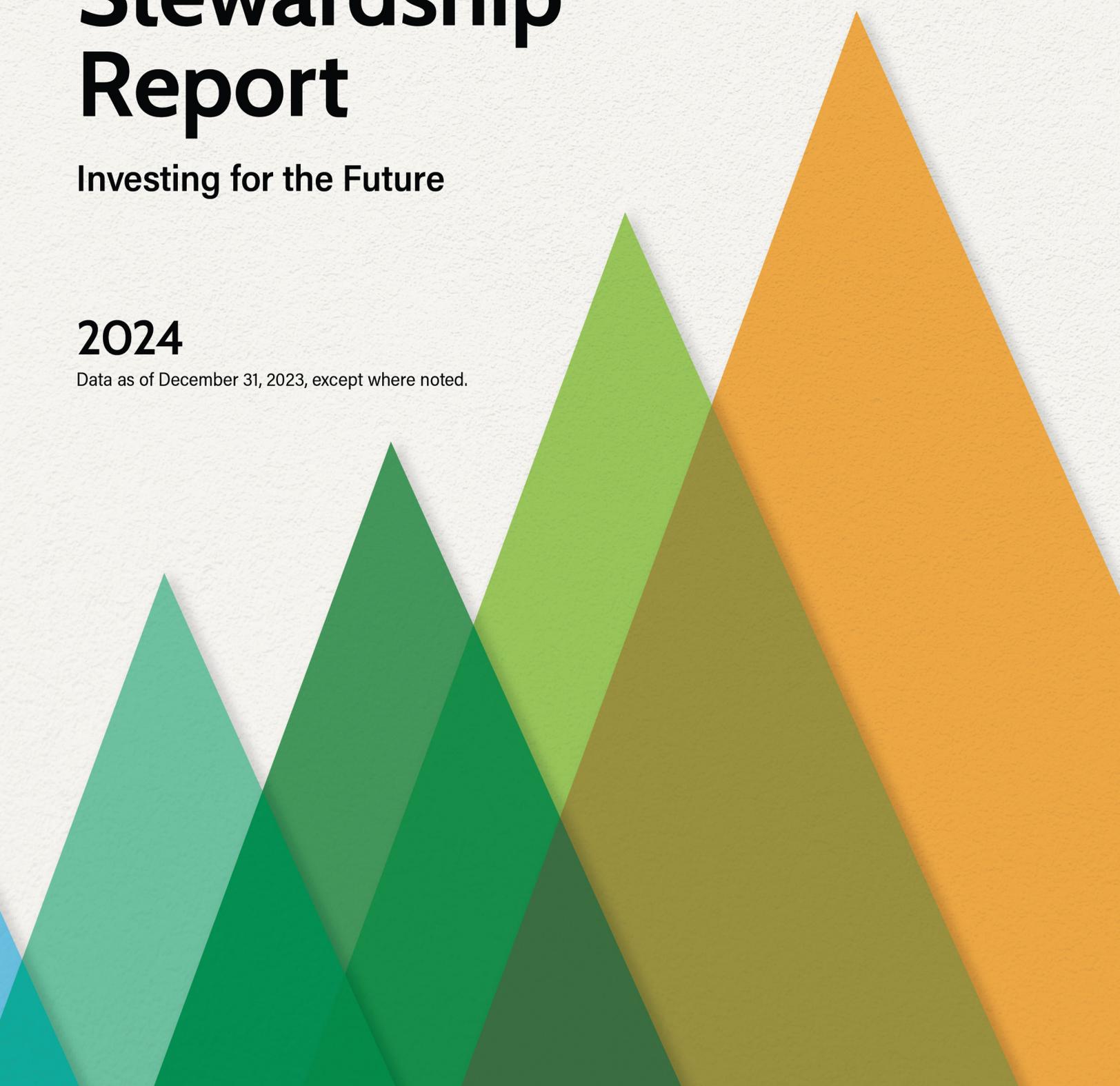
Public Employees' Retirement Association of Colorado

Investment Stewardship Report

Investing for the Future

2024

Data as of December 31, 2023, except where noted.



INVESTING FOR THE FUTURE: 2023 ACTIVITIES

Each pillar of Colorado PERA's investment stewardship supports our mission to provide retirement benefits to our members while ensuring the sustainability of the fund.



PROTECT

Protect members' interests by watching costs

\$65 Million

Savings due to internal investment management

0.35%

Cost to manage the Total Fund, or less than \$4 of cost for every \$1,000 managed

\$100,000

Estimated savings by producing CAP fund fact sheets internally



INTEGRATE

Integrate relevant factors into PERA's investment strategy

>500

Companies and fund managers engaged on material investment factors

~68,000

Proxy proposals voted

>300

Proposals seeking ESG disclosures voted



ADVOCATE

Advocate for robust markets

16

Advocacy councils to which PERA Investments staff contributed expertise

3

Comment letters filed with regulators in support of PERA's investment interests

35

Direct engagements with legislative and regulatory offices on matters that can affect PERA and our members



EVALUATE

Evaluate exposures and recognize limitations

\$82 Billion

Generated by PERA's investments over the past 30 years

7.8%

Annualized 10-year net return on PERA's investments

10.0%

Annualized 5-year net return on PERA's investments

Annual figures, as of December 31, 2023, unless otherwise noted.

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A MESSAGE FROM PERA MANAGEMENT

Stewardship is at the heart of Colorado PERA's mission to provide retirement security for our members while ensuring the sustainability of the Fund. To achieve our mission, we must operate and invest in the best interest of the PERA membership while defraying reasonable costs. This fiduciary responsibility is the foundation of everything we do for plan participants, and our work is guided by three principles:

- ▶ Be effective stewards by emphasizing sustainability in all operations.
- ▶ Serve member needs by delivering quality service and consistent performance amid changing environments and expectations.
- ▶ Build strong relationships and deepen trust among all stakeholders by exercising strong governance, acting transparently and ethically, and providing excellent customer service.

Each year we hear from hundreds of PERA stakeholders, including retirees, active members, beneficiaries, legislators, and citizens of Colorado. Since 2018, we have presented this annual report to bring transparency to why and how PERA invests on behalf of the membership. As our conversations with our community have evolved, so too has this report, and this edition continues that effort.

In 2023, the Colorado General Assembly passed a bill (Senate Bill 23-016 *Concerning Measures to Promote Reductions in Greenhouse Gas Emissions in Colorado, and, in Connection therewith, Making an Appropriation*) that would, in part, require PERA to publicly report on how we consider climate-related risks in our investments and operations. The bill was signed into law by Governor Polis on May 11, 2023, and mandates that PERA publish this information beginning in 2025.

In response to this legislation, we have augmented the 2024 report with new insights into how PERA considers both risks and opportunities related to climate change. Notably, we are building on our previous years' disclosures at the portfolio level and broadening the report's aperture to capture the ways in which we consider climate-related risks to the organization. Whether we are factoring material risks into our investment decisions or upgrading our facilities and member service models, we continue to prioritize financial sustainability, in line with our mission and fiduciary duty.

As stakeholder interests change, we remain transparent in our stewardship because we believe trust and transparency go hand in hand. Thank you for your continued trust in us to provide retirement security for PERA members, now and into the future.

Sincerely,

Andrew Roth
Chief Executive Officer/Executive Director

Amy C. McGarrity
Chief Investment Officer/Chief Operating Officer

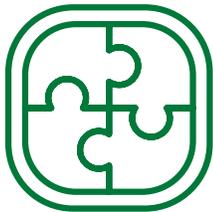


Andrew Roth
Chief Executive Officer/
Executive Director



Amy C. McGarrity
Chief Investment Officer/
Chief Operating Officer

Look for these symbols throughout the report for specific examples of how PERA's four-part stewardship approach is used to achieve financial sustainability over the long term.



INTRODUCTION

Stewardship is at the heart of Colorado PERA's mission.

Stewardship is at the heart of PERA's mission. As stewards of pension plan assets, we manage approximately \$61 billion on behalf of nearly 700,000 members and benefit recipients.¹ That is a tremendous responsibility, and one we accept whole-heartedly. In fulfillment of our fiduciary duty, PERA's investment stewardship is founded on our commitment to the long-term financial stability of the Fund for its beneficiaries.

This *Investment Stewardship Report* explores PERA's approach to seeking financial sustainability through investment stewardship. With increasing focus on global stewardship matters within the investment industry, we uphold PERA's view of stewardship as an integrative framework for achieving financial stability. Under this approach, we have found opportunities to invest in firms and partnerships that integrate quality practices into their business models, while prioritizing long-term financial outcomes.

PERA's stewardship approach adheres to our investment policies by maintaining our foundational focus on maximizing risk-adjusted returns across the Total Fund. Throughout this report we demonstrate how PERA uses the lens of stewardship to guide our decisions in the fulfillment of our fiduciary duty. We conclude with a discussion of industry perspectives on sustainable investing and reflect on how they help inform PERA's ongoing investment stewardship toward the ultimate financial sustainability of the Fund.



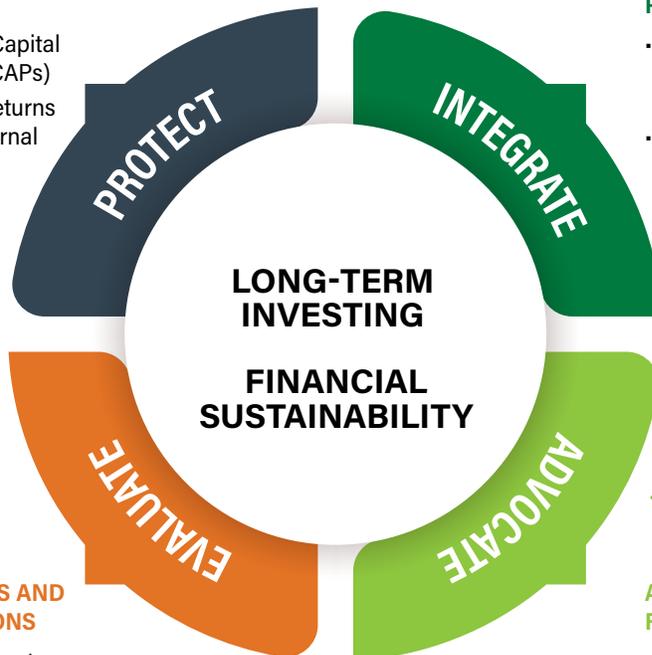
PROTECT MEMBERS' INTERESTS BY WATCHING COSTS

- Lower costs in PERA Capital Accumulation Plans (CAPs)
- Provide high-quality returns at low costs using internal management



INTEGRATE RELEVANT FACTORS INTO PERA'S INVESTMENT STRATEGY

- Invest in firms with sustainable business models for long-term profitability
- Vote proxy proposals to promote expected long-term shareholder returns



EVALUATE EXPOSURES AND RECOGNIZE LIMITATIONS

- Use independent research
- Identify and measure exposures



ADVOCATE FOR ROBUST MARKETS

- Advocate for robust capital markets
- Develop and share best practices

PERA'S INVESTMENT STEWARDSHIP APPROACH

We actively serve as good stewards of plan assets for the benefit of PERA members.

PERA's approach to pursuing financial stability is guided by four practices for sound investment stewardship:

- ▶ We protect our members' interests through cost-conscious investment management.
- ▶ We integrate financially relevant factors into our investment decisions.
- ▶ We advocate for robust capital markets and business practices.
- ▶ We evaluate various exposures within our portfolios on an ongoing basis.

In this section, we highlight our work to preserve and enhance our members' retirement assets through responsible investment stewardship. Within the context of our long-term investment horizon and objectives, we discuss PERA's diverse asset allocation as the foundation for portfolio construction within the Defined Benefit (DB) Plan. We describe our ongoing cost stewardship to protect assets and discuss the opportunities to integrate numerous factors into the portfolio while prioritizing risk-adjusted returns. We also demonstrate PERA's influence as the voice of our membership in the global marketplace through our focus on advocacy. This section concludes with evaluations of various ESG exposures within our portfolios to reinforce our commitment to promoting objective analysis and increased disclosures for better stewardship.

BUILDING A PORTFOLIO WITH LONG-TERM SUSTAINABILITY

Diversification is the foundation for constructing a portfolio built to last.

As PERA's *Statement of Investment Policy* states, "The function of PERA is to provide present and future retirement or survivor benefits for its members. This objective requires the prudent assumption of investment risk in seeking to maximize long-term investment returns while incorporating the fund's liability requirements."² Meeting perpetual financial needs requires using PERA's breadth of resources to design a sustainable framework on which to build a long-term investment portfolio.

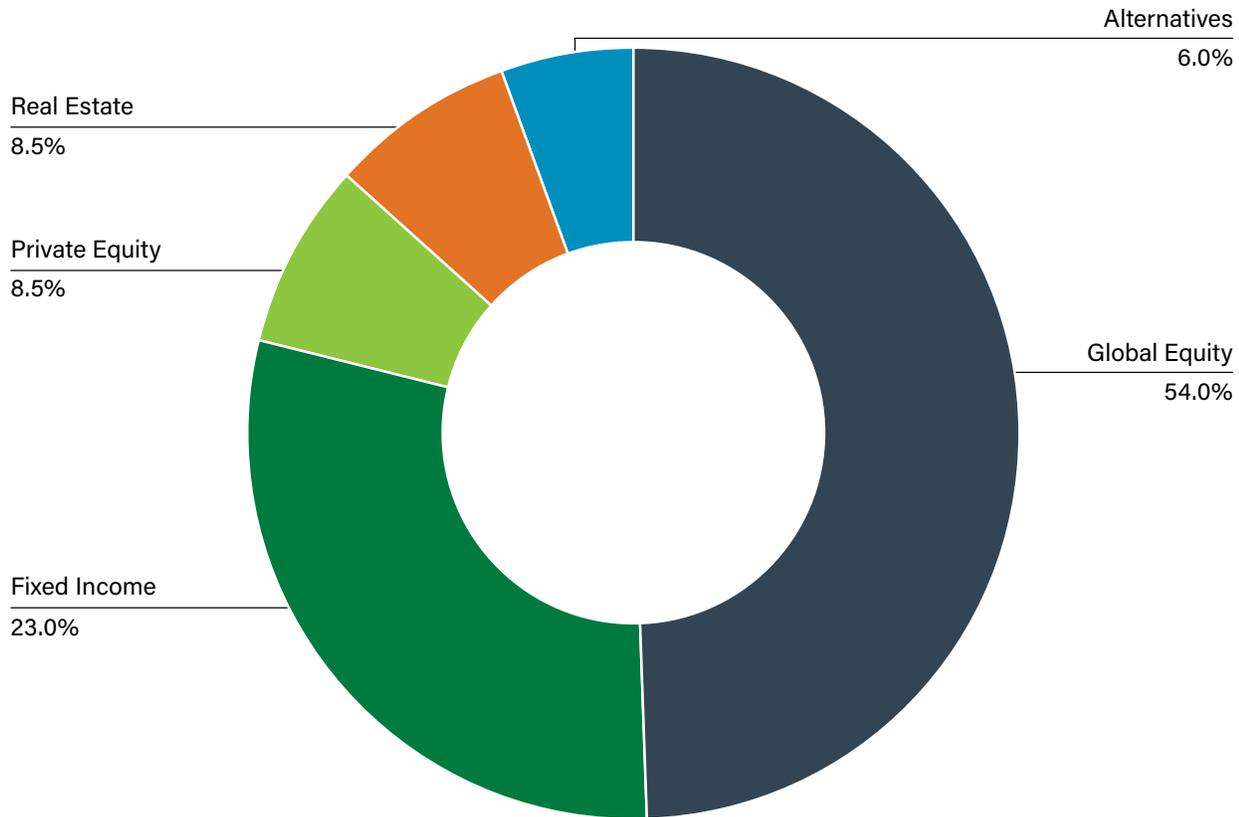
In constructing the DB portfolio, PERA allocates assets across diverse public and private markets. We manage investments in public equity and debt instruments in both developed and emerging markets, commercial real estate properties, private equity partnerships, and alternative interests. Allocating capital to diverse asset classes allows PERA to maintain a broad investable universe, which is imperative for long-term financial success. The advantages of diversification include the ability to seize opportunities in different markets, unlock complementary performance attributes, and manage downside risk to the portfolio.

The allocation to each class in the DB portfolio is the result of periodic asset and liability studies undertaken by the PERA Board of Trustees (Board) in consultation with investment and actuarial experts to ensure the portfolio is well-diversified to withstand volatility and provide returns that enable us to pay retirement benefits to our members in perpetuity. In pursuing diverse opportunity sets over a long time horizon, PERA expects to enhance performance of the Total Fund while effectively managing financial risks. By diversifying the portfolio, each asset class becomes a building block for modeling risk and return expectations in line with PERA's mission to provide retirement security for our members over the long run.

Regardless of which asset class an opportunity falls under, PERA is committed to protecting members' interests through cost-conscious investing, integrating financially relevant considerations, advocating for healthy markets, and evaluating appropriate exposures to inform our decisions on an ongoing basis.

Long-Term Target Allocation

Our stewardship centers on one objective: To seek out quality investments that are expected to provide the best risk-adjusted returns to PERA's portfolio over the long term. We start by building a portfolio of diverse assets to withstand market fluctuations. Each investment category in the portfolio is carefully selected to maximize anticipated returns while managing investment risks to the Total Fund.



Asset Class	Expected 30-Year Return*	Primary Assets	Key Attributes	Market Transparency**	Fund Management
 Global Equity	8.0%	Public company stocks	Long-term growth, volatility, liquidity	Public/transparent	Internal and external
 Fixed Income	3.6%	Public company, government, and securitized bonds	Liquidity, diversification, stability	Public/transparent	Internal
 Private Equity	9.6%	Partnership funds in private companies	Private enterprise, diversification, illiquidity	Private/opaque	External
 Real Estate	6.8%	Real properties and partnership funds	Income, downside protection, diversification	Private/opaque	Internal and external
 Alternatives	7.1%	Real assets, hedge funds, and partnership funds	Diversification, special opportunity, illiquidity	Mixed	External

* Expected 30-year returns were as of Q1 2019, were provided by the Board's external consultant (Aon), and were used in the 2019 asset/liability study.

** Investors have varying degrees of transparency into the operational and financial results of public and private companies. Publicly listed companies are required to disclose information about their operational and financial results that may not be required of privately owned companies. This leads to greater informational efficiency for asset valuations in public markets than in private markets.



PROTECT



PROTECT



Higher quality, low cost services create real value in the retirement funds we administer for PERA members.

PERA aims to earn risk-adjusted returns in an efficient, cost-effective manner without sacrificing our focus on quality investments. We acknowledge there are inherent monetary costs to investing. These costs may be explicit or implicit and may vary depending on factors such as market structures, investment needs and availability, relationship agreements, regulatory fees, operational efficiencies, and management expertise. We advocate for cost transparency where we can, and seek the lowest possible costs to preserve risk-adjusted returns in both our DB (pension) and Defined Contribution (DC individual savings) Plans.

Lowering Aggregate Investment Management Fees

As part of our cost stewardship within PERA's DB Plan, we emphasize low-cost, high-quality internal management of the majority of our assets, while selectively partnering with external experts where those relationships add value. As our assets have grown over the past 10 years, we have kept internal investment management costs consistently low. The lower costs of managing the majority of our assets internally help to offset the costs of managing assets externally. This enables PERA to provide higher quality returns at lower overall costs.

Within the public equity asset class, PERA's experts manage the majority of assets in-house, resulting in significant overall cost savings. As PERA's assets have grown, the competitive advantage of using in-house investment professionals has also increased, saving PERA over \$65 million in 2023.

In 2023, PERA utilized external experts for a portion of our public equity investments, as well as for partnerships that help facilitate our private asset investment strategies where they can produce compelling results.

The complexity of private asset strategies necessitates deeper resources and specialized expertise to transform underlying assets to generate expected returns generally higher than those of public investments. Where we can, we negotiate with our external partners for lower management fees. In every partnership, we hold our managers to high standards and select only those managers who we believe will add the greatest value on a risk-adjusted basis at a fair cost.



PROTECT



See the "Protect" video for a snapshot of PERA's investment cost stewardship at copera.org/stewardship.

i What does this mean for PERA members?

Each person on PERA's investment staff is an expert committed to serving our members' financial longevity. We leverage that expertise to reduce the need to use outside investment managers, which saves money while adding value for our members.

Since 2014, PERA's Real Estate investors have focused on driving fees lower while pursuing investment structures that maximize risk-adjusted returns. One way we have done this is by shifting focus to develop smaller investment structures, which allow for asset flexibility over the long run, decision-making capability, better overall transparency, and potential management and incentive fee reductions. Staff have also worked to reduce both management and incentive fees by shifting assets toward direct investing, which gives PERA full ownership control of underlying assets.

Assets in PERA's Real Estate portfolio have also been strategically allocated to certain fund strategies that allow for increased flexibility in cash management while further reducing fees. PERA has successfully negotiated perpetual management fee structures to lock in below-market costs for new fund investments in these strategies, as well as for future add-on investments. Besides cost reduction benefits, the move to these funds has allowed for more flexibility in diversification and tactical investing, while also offering higher asset quality and an income dividend.

.....
"Internal management supports our ability to be agile in responding to market conditions while also saving PERA significant costs."

—Keith Tayman
PERA Director of Fixed Income
.....



PROTECT

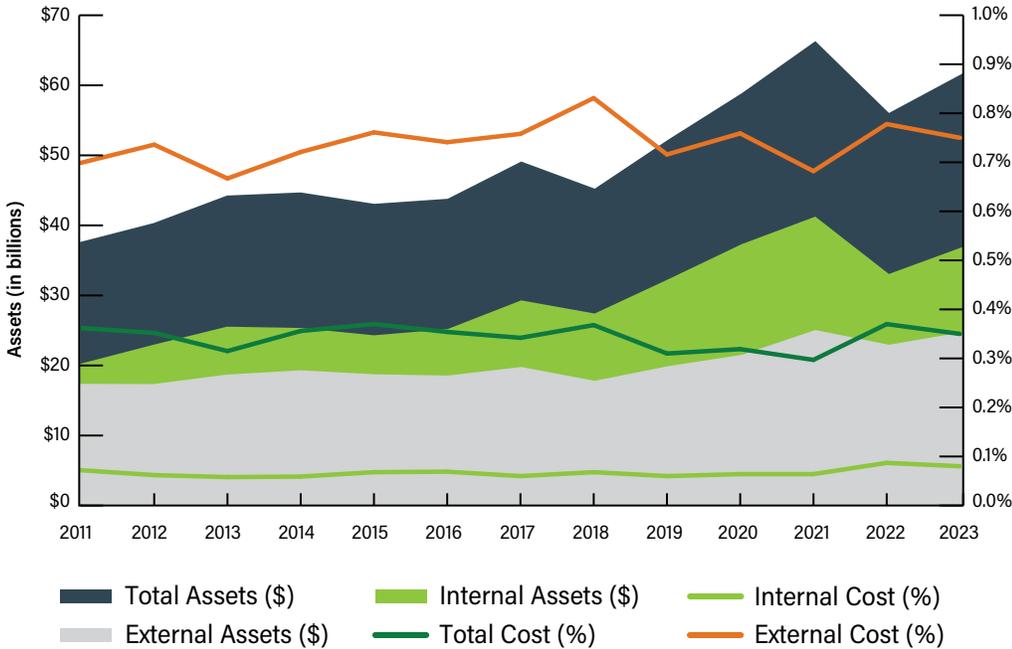
While private asset management contracts generally restrict investors from fully disclosing most fee-related information to the general public, PERA staff has full access to this information and carefully evaluates fees paid on an ongoing basis. This fee information is also reviewed by the Board's Investment Committee. PERA continues to strive toward increased transparency within our contractual limits.



To that end, we have adopted the Institutional Limited Partner Association's (ILPA) Reporting Template which aims to standardize disclosures of fees, expenses, and carried interest costs within private asset partnerships.³ In joining our peers in the adoption of the ILPA Template, PERA endeavors to bring forth mainstream transparencies that address potential risks and promote efficiencies within private markets.



Internal Management Lowers Costs



Internal Management Adds Value to the Fund

21 years Average experience in investment management among internal investment experts.

60.0% Of Total Fund managed in-house at a cost of ~0.05% of those assets.

\$65 million Estimated annual savings due to internal investment management.



Lower Fees = More Savings



Reducing Fees for PERA's Capital Accumulation Plans (CAPs)

PERA recognizes the value of saving for retirement, and we make the process easy and cost-efficient for our members. In addition to the pension plan, all PERA members have the option to invest for their own retirement through PERA's 401(k) Plan. Members of affiliated employers also have the option to participate in PERA's 457 Deferred Compensation Plan. Additionally, some members are eligible to forgo participation in the DB Plan completely in favor of sole participation in the DC Plan.

The 401(k) Plan, 457 Deferred Compensation Plan, and the Defined Contribution Plan are collectively called the Capital Accumulation Plans (CAPs). These plans are separate from the DB Plan and provide the opportunity for PERA members to self-direct their own money across a wide variety of investment options to help meet their individual retirement savings goals.

As of December 31, 2023, the CAPs offer 17 PERAdvantage funds and a self-directed brokerage account (SDBA) in which participants may choose to invest their individual account assets.

The PERAdvantage funds range from professionally managed target retirement date funds to funds specializing in specific asset classes and strategies. The costs to invest in each Plan includes a \$1-\$1.50 flat participation fee per month (\$12 per year for 401(k) Plan and DC Plan participants, and \$18 per year for 457 Deferred Compensation Plan participants), and plan administration asset-based fees of 0.03%.⁵ That means the participant will pay just \$0.30 for every \$1,000 of assets in their account. In addition to these low fees, each participant in the PERAdvantage funds pays a small investment management fee, which varies for each investment option.

The SDBA option allows a participant to construct and manage a portfolio with their choice of publicly traded securities and funds. There is a \$50 flat participation fee per year to participate in the SDBA, and participants must maintain a \$500 minimum balance in the PERAdvantage Funds.

Additionally, participants have access to two guaranteed income annuity choices. Information on these options can be obtained on coperaplus.org.

In an ongoing effort to reduce fees paid by participants, PERA has worked to reduce the CAPs' administration fees from 0.50% of assets in 1995 to 0.03% of assets in 2023. PERA also internally manages a portion of the funds offered through the Plans, resulting in lower overall investment management fees.

Reductions in administration and investment management fees have decreased the all-in costs of PERA's 401(k) Plan from 0.66% of assets in 2011 to 0.12% of assets in 2023.⁶ That's an 82.0% decrease in fees. Those smaller investment costs equal bigger nest eggs for participants and more efficient Plan management. The Board has prioritized the continuing reduction of CAPs' fees, and we will regularly evaluate additional potential cost savings that would benefit participants.

In addition to lowering costs paid by participating members, PERA works to reduce the CAPs' operating costs. As of 2020, fact sheets for each of the funds offered through the CAPs are produced internally by PERA staff, at an estimated savings of \$100,000 per year. These fact sheets are updated quarterly and published on our website and through the Plans' recordkeeper to inform participating members about each fund's strategy, portfolio composition, performance, and fees.

For more information about the CAPs, including fund summaries, fact sheets, and performance, please visit: copera.org/defined-contribution-dc-plan-investments.

i What does this mean for PERA members?

In addition to the pension plan, PERA offers options for members to invest their own retirement savings as they choose.



INTEGRATE



INTEGRATE



PERA considers relevant economic and business factors in our investment decisions with a focus on long-term financial outcomes in order to pay retirement benefits to our members.

PERA invests to provide retirement income for our members. This objective requires us to factor financially relevant information into our investment and proxy voting decisions. Where environmental, social, or governance matters are expected to materially affect a firm's financial performance, we may integrate them into our decisions as pieces of the mosaic of information we consider. This integrative approach to investing has always been PERA's approach to seeking long-term financial sustainability of the Fund for the ultimate benefit of our members.

Integrating Relevant Factors into PERA's Investment Decisions

PERA is a global investor with exposure to diverse industries, properties, and geographic regions. We employ sophisticated strategies in public and private markets to meet our financial return objectives while managing risk to the portfolio. In our actively managed Global Equity portfolios, we diligently analyze a company's financial health and prospects, seeking to understand how it manages challenges to its business while pursuing profitable opportunities in the market to benefit shareholders. In our Fixed Income portfolios, we carefully select securities expected to yield attractive returns while taking into consideration other factors such as the corporate environment, regulatory circumstances, and market conditions. Likewise, in our directly owned Real Estate portfolio, we carefully assess a property's value and ability to generate income and capital appreciation. In our Private Equity and Alternatives portfolios, we diligently evaluate managers and their fund offerings to select the best opportunities to improve expected risk-adjusted returns to the portfolio.

In each portfolio strategy, PERA's investors consider a vast array of economic and business-specific elements when taking an investment action. The precise factors considered may differ between investment choices and through time as economic forces present new risks and opportunities for investors to consider. Therefore, what is financially relevant to one investment decision may not be financially relevant to another and its relevance can change over months, years, and even decades.

This is what is referred to as "dynamic materiality."⁷ The financial materiality of a particular piece of information can change as economic conditions shift. The three primary drivers of economic activity can be categorized as legislative and regulatory policy making, technological advancement and innovation, and supply and demand functions.



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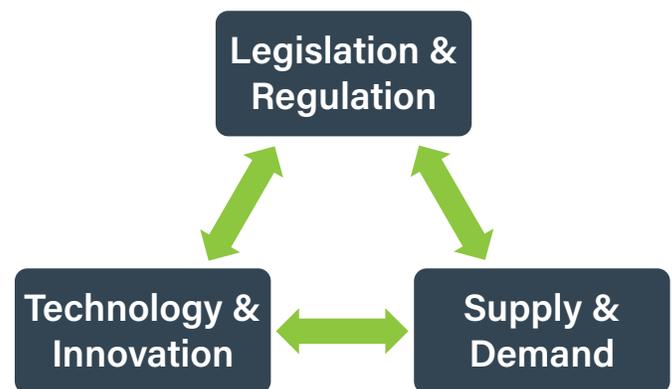
See the "Integrate" video for a snapshot of how PERA integrates material factors in our decisions at copera.org/stewardship.



What does this mean for PERA members?

We invest with one goal—to pay benefits to our members for the duration of their retirement and to their beneficiaries thereafter, as applicable.

**We don't drive markets.
We anticipate and respond to markets.**





INTEGRATE



The ways in which companies identify and respond to these three primary market drivers can set them apart among their peers. Competitive advantages are not only profitable for the firm, but can lead to stronger returns for investors. As such, PERA is interested in understanding how the companies and fund managers we invest in and with are responding to economic conditions to remain profitable over the long term.

When evaluating how companies and managers are responding to economic risks and opportunities, any number of factors may come into play. Risks can be systemic or idiosyncratic, short-term or long-term, and can vary in severity and likelihood of impact. Market participants know that risks are not without opportunities, and investors expect to be compensated for taking on risk. Therefore, it is important to understand which risks are, or are not, pertinent to a decision at a specific point in time given the full scope of factors at play in the opportunity and the investor's unique objectives. As risk factors recombine with different economic influences through time, new opportunities are presented in the market.

As technology advances, consumer demand may change, and regulation may expand. This can create new risks and opportunities in the market for businesses to respond to. In turn, investors have new opportunity and risk sets from which to select the investments that best meet their objectives.

PERA remains focused on integrating relevant factors in our investment decisions. In so doing, we are not trying to change market risks and opportunities, nor are we trying to drive capital toward certain industries over others. We are solely committed to driving risk-adjusted returns to the PERA portfolio in order to pay retirement benefits to our members and their beneficiaries, in line with our fiduciary duty.

No single risk factor dominates an investment decision



Risks are not without opportunity, and investors are expected to be compensated for taking on risk



INTEGRATE



Financially Focused Engagements

PERA investment staff actively engages with management teams of public corporations and private funds in which we invest. From initial assessments and throughout the investment period, we think critically about how the firms we invest in are navigating market risks and pursuing opportunities that can lead to higher investment returns over the long run.

In our engagements, we seek to understand how companies are responding to economic conditions. We want to know how they are managing risks and opportunities to their business so we can make informed investment decisions that advance our mission to provide retirement security for our members.

In 2023, PERA staff engaged with more than 500 public companies and private fund managers in which we invest.

Topics on which PERA engaged public companies and private investment partners in 2023

Changes in the economy impact business and investment decisions. Regardless of how economic focus or labels change over time, we integrate financially relevant information into our investment decisions.

Engagement Topic	Economic Focus	Other Potential Label
Business strategy	Competitive advantages, mergers and acquisitions, private market exit strategies, growth of AI	Governance
Costs, fees, and pricing	Higher interest rates, production costs, insurance premiums, leverage targets, competitive pricing	Governance
Deal pipelines	Fund launches or renewals, sourcing and transactions	Governance
Legal obligations	Fund terms, fiduciary duty, emerging regulatory requirements	Governance
Financial and operational performance	Cash flows, margins, sales growth, investment returns, value creation initiatives	Governance
Labor	Changes to fund ownership or key personnel, firm culture	Social

What kind of questions do PERA’s investors ask public companies in their engagements?

In our actively managed public equity portfolios, PERA is focused on understanding a company’s fundamental stock value and competitive market advantages. Each company in PERA’s public market portfolio is unique, so no two conversations between PERA’s investment staff and corporate management are the same. As companies respond to public policy, innovate new technologies and products, and work to meet changing customer demands, the types of questions we ask change through time. In 2023, PERA staff asked questions such as:

- ▶ How are margins trending?
- ▶ How are you staying competitive among industry peers?
- ▶ How are prices trending relative to costs?
- ▶ What are your best growth opportunities?
- ▶ What are the biggest risks to the company?

PERA's Approach to ESG

PERA takes an integrative approach in our fundamental analysis, considering aspects of business and markets that can have a financial impact on our investments over the long term. This may include factors that can be labeled under the ESG convention.

Regardless of how factors we consider can be labeled, we prioritize financial value, rather than personal values, in our investment and proxy voting decisions.

ESG IS...

- ▶ A labeling convention to represent environmental, social, and/or governance factors
- ▶ The most widely used acronym for describing nontraditional aspects of business and profitability
- ▶ Adaptable to meet unique business and investment objectives
- ▶ One way to label factors that may have financial impact on a company and its investors

ESG IS NOT...

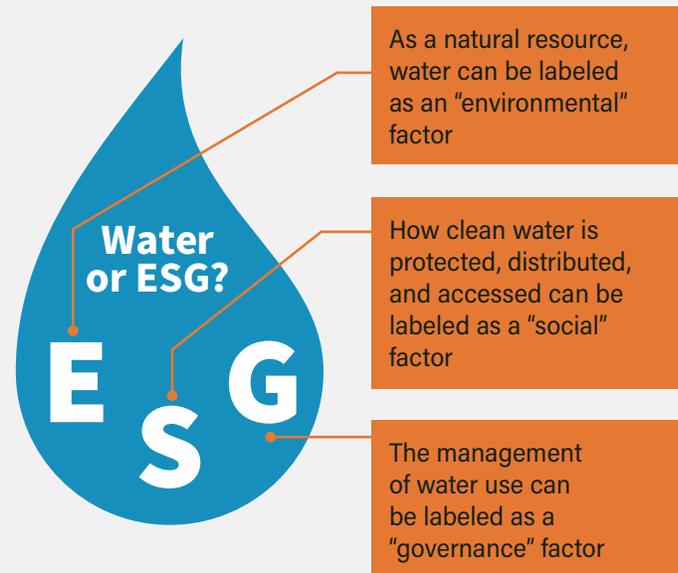
- ▶ A type of business or company
- ▶ A political affiliation or social movement
- ▶ A policy
- ▶ A business or investment strategy or objective
- ▶ The only way to label nontraditional factors that may have financial impact on a company and its investors

When Could Water Be Labeled as a Financially Relevant E, S, or G Factor?

Consider a soft drink company. Water is a critical input to making soft drinks. To remain competitive in the beverage industry, the manufacturer would need to manage this natural resource well (environmental), avoid infringement on community rights and access to clean water (social), and be able to adapt their business strategy and operations as supply, demand, policy, and technology change through time (governance). Whether it's labeled as "H2O," "ESG," or "LMNOP," water and its management may be a financially material factor for businesses and investors to consider.

What is ESG?

ESG is an acronym for environmental, social, and governance factors which investors may consider as part of their investment decision framework. Underlying each of these motifs are countless elements of sustainable practices. ESG is the most common label used to indicate global sustainability within the investment industry, but it is not the only label. Sustainable investing, socially responsible investing, and corporate social responsibility are also among the many terms investors may use to describe sustainable investing. Each designation can be underpinned by unique approaches and limitations, which investors may apply to their portfolios for alignment with their investment philosophies and policies.





INTEGRATE



Exposures to Various Themes

The integration of relevant financial factors in our investment decisions can result in exposures to various nonfinancial themes in the portfolio. Such themes are often classified as environmental, social, or governance related. PERA does not invest to meet any ESG objectives, but we recognize that both financial and nonfinancial exposures may be presented by these in the portfolio as a result of our integrative decision-making as economies and markets change.

Following are examples of these types of exposures, where they are material to the business of the underlying investment within the PERA portfolio.

\$4 billion

Invested in the top quartile of companies with significant carbon footprints that are proactively investing in low-carbon technologies and increasing the carbon efficiency of their facilities.**

Renewable Energy

PERA invests in energy companies that utilize traditional and renewable fuel sources. The COVID-19 pandemic and international conflict have demonstrated that the transition to a lower carbon economy will continue to be complex, necessitating both innovative and reliable fuel sources to meet the world's energy needs.

We have exposure to renewable energy companies through our public and private equity and debt investments. The underlying companies in which we invest through our private partnerships include producers and suppliers of eco-friendly energy. Many of these companies generate solar, wind, geothermal, and hydro-powered electricity. Other firms work to develop low-cost green technologies. Some of these technologies are used to produce biofuels by converting municipal solid waste and biomass into green chemicals.

PERA currently invests in public companies that recognize the demand for decreasing carbon emissions, which seek to mitigate their carbon emissions by managing energy consumption and improving the energy efficiency of their operations. Many of these companies have committed to net-zero carbon emissions by 2050, in line with the goals of the Paris Agreement.



\$1 billion

Invested in companies that are aggressively targeting reduced carbon emissions.*



\$1 billion

Invested in companies that are aggressively seeking to mitigate carbon emissions through cleaner sources of energy such as wind or solar.*

As consumer demands shift and technologies in energy production change, opportunities for profitability evolve and present unique risks to investors. PERA will continue to manage the investment risks and opportunities in our portfolio across the energy sector, including traditional and alternative sources, and construct our portfolios around companies and assets that provide the most attractive expected long-term return to risk profile.

Energy Efficient HVAC (Heating, Ventilation, and Air Conditioning)

Building operations represent more than a third of global carbon emissions.⁸ Demand has grown for more efficient HVAC systems due to an increased interest in reducing organizations' carbon footprints. However, enhancing Indoor Air Quality (IAQ) is also top of mind for companies as they work to make their buildings (e.g., offices, apartments, warehouses, etc.) healthier places for people to work and live.⁹ This presents challenges in working toward energy efficient buildings as IAQ improvement requires a constant injection of heated or cooled air, depending on the season.

In the PERA Global Equity portfolio, we own equity in companies that provide improved HVAC efficiency. PERA's industrial sector analysts and portfolio managers have identified several opportunities to invest in corporations that are innovating HVAC technologies. These technologies can have a significant impact on a building's energy efficiency. We expect these investments to outperform due to significant demand requirements for healthier and more efficient indoor air. As of December 31, 2023, PERA had \$84 million actively invested in these companies' stocks.



\$100 million

In directly-owned LEED®-certified properties.

* Data from MSCI ESG Research, LLC. for PERA public market portfolios.

** MSCI quartile rankings are relative to companies in the relevant ESG rating industry that are constituents of the MSCI ACWI.



INTEGRATE



Green Real Estate

In the PERA Real Estate portfolio, we believe energy and water-efficient features can add value to the buildings in our portfolio, as well as to the quality of life for tenants and their communities.

One example is found in our long-term and controlling interest in a large multi-family residential property that works with the City of Dallas to implement a comprehensive program called "Go Green." The property consists of 15 residential communities comprised of more than 6,000 units. The buildings have been upgraded with energy-efficient lighting, ENERGY STAR® certified appliances, high-efficiency toilets and faucets to reduce water waste, eco-friendly carpeting, and low VOC paint. The properties are also managed with environmentally responsible practices including solar-powered irrigation, drought-tolerant landscaping, in-house composting, extensive recycling programs, low carbon emission warehouse operations, and use of post-consumer and remanufactured office products. The property management team further reduces waste by reusing fixtures within the properties and partnering with local and national organizations to donate useful household items, clothing, electronics, and appliances.

Buildings in this project, as well as several others within PERA's Real Estate portfolio, have earned the ENERGY STAR, have the IREM Certified Sustainable Property (CSP) certification, or are certified by the LEED® green building program. The U.S. Green Building Council's Leadership in Energy and Environmental Design™ (LEED) building program is the preeminent program for the design, construction, maintenance, and operations of high-performance green buildings worldwide. The LEED certification program verifies these buildings' resource and cost efficiency, and encourages higher lease rates through its emphasis on healthy buildings.¹⁰ PERA has \$1 billion invested in more than 350 buildings that are LEED certified.



\$510 million

Invested in companies with 50.0% or more water usage from alternative sources.*

Water Solutions

The United Nations reports that five of 11 regions worldwide are water-stressed, meaning they withdraw at least 25.0% of their renewable freshwater resources.¹¹ Such conditions necessitate innovative technologies and services to provide clean and accessible water to communities. This presents new opportunities for companies and their investors.

Through our private fund partnerships, PERA has investment interests in companies that are deploying new technologies to purify water and provide sustainable water management and delivery infrastructure. Such companies may promote reduced use of single-use plastic bottles by providing water refill stations, develop solutions for companies to enhance their water efficiency throughout the supply chain, measure and analyze water quality, reuse water and reduce water waste, detect leaks, and deliver clean water to communities.

As the earth's climate changes and communities face prolonged droughts or extreme floods, water management is expected to be a key component of a company's operational efficiency and competitive advantages. As companies innovate to respond to changing demand and regulations, investors will be presented with new risks and opportunities in the market. PERA's fund managers are expected to continue seeking the most appropriate companies for inclusion in their private market portfolios. PERA's private market investors will likewise continue seeking the funds and managers that are expected to provide the best risk-adjusted returns to the portfolio we manage for the ultimate benefit of our members.

\$5 billion

Invested in the top quartile of companies with comprehensive privacy policies and data security management systems and companies that do not have business models reliant on trafficking of personal data.**

Colorado Investments

As stewards of Colorado's largest public pension plan, PERA takes pride in our contributions to Colorado's economy. We have approximately \$789 million in Colorado investments that meet the rigorous investment criteria for inclusion in the PERA portfolio. Our local investments include:

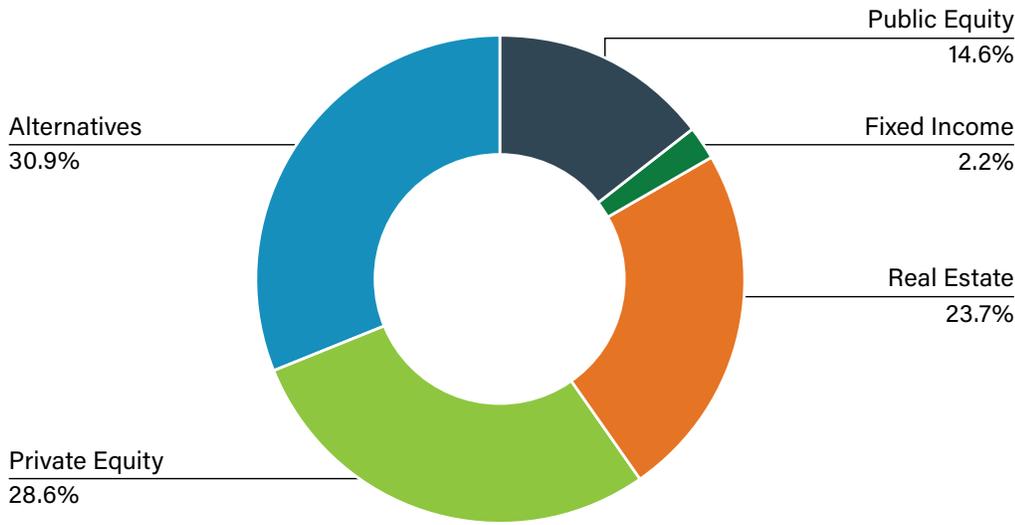
- ▶ Equity in public and private companies headquartered in Colorado.
- ▶ Real estate in both direct ownership and pooled investment capital.

* Data from MSCI ESG Research, LLC. for PERA public market portfolios.

** MSCI quartile rankings are relative to companies in the relevant ESG rating industry that are constituents of the MSCI ACWI.



Diversification of Investments in Colorado
As of December 31, 2023



Investments in Colorado
As of December 31, 2023

Asset Class	Fair Value
Public Equity*	\$89,295,000
Fixed Income*	25,452,000
Real Estate	
Portfolio investments**	109,744,000
Future commitments to Colorado-based general partnerships or funds	61,484,000
Total Real Estate	171,228,000
Private Equity	
Portfolio investments**	209,610,000
Future commitments to Colorado-based general partnerships or funds	41,038,000
Total Private Equity	250,648,000
Alternatives	
Portfolio investments**	137,419,000
Future commitments to Colorado-based general partnerships or funds	114,848,000
Total Alternatives	252,267,000
Total Investments in Colorado	\$788,890,000

* Companies headquartered in Colorado

** Portfolio investments domiciled in Colorado

PERA has approximately \$789 million in Colorado investments, including:

- » Equity in public and private companies headquartered in Colorado
- » Real estate in both direct ownership and pooled investment capital

Positively Impacting Colorado's Economy

In addition to investing in Colorado, PERA benefit payments to retirees and benefit recipients have a positive impact on the state's economy. In 2023, over 114,000 Colorado residents received more than \$4.5 billion in distributions from PERA. These stable and valuable contributions to Coloradans resulted in the following:ⁱ

- ▶ \$7.13 billion in output (all goods and services transactions)
- ▶ \$3.39 billion in value-added (state gross domestic product)
- ▶ \$1.80 billion in labor income (which measures worker impact in wages)
- ▶ 28,525 jobs
- ▶ \$381.8 million in state and local tax revenues



Source: *Colorado PERA's Economic and Fiscal Impacts 2024*, prepared by Pacey Nehls Economic Consulting

i Data taken from Colorado PERA's *Economic and Fiscal Impacts Report 2024*, prepared by Pacey Nehls Economic Consulting. The 2024 report covers activity through 12/31/2023. The *Economic and Fiscal Impacts Report* is produced every two years.



INTEGRATE



What is Proxy Voting?

Proxy voting is a formal mechanism through which corporations and their shareholders communicate about a broad range of issues and practices that can affect a company's long-term sustainability and investment returns. It is one of the ways shareholders exercise engaged ownership. Voting matters can be put to ballot by the company's board or its shareholders, and cover important decisions such as approving the members of the board of directors, mergers, acquisitions, and types of disclosures made to shareholders. Shareholders can vote in person at a corporation's annual general meeting (AGM), or cast their votes electronically in advance of the AGM, which is called voting by proxy, or proxy voting.

PERA'S 2023 Proxy Voting Activity¹²

PERA voted more than 68,000 proposals filed by corporate management and shareholder proponents in 2023.

Curious how PERA voted at a particular company meeting? You can search and explore PERA's votes on copera.org/proxy-voting, which is updated with our vote following each meeting.

6,215

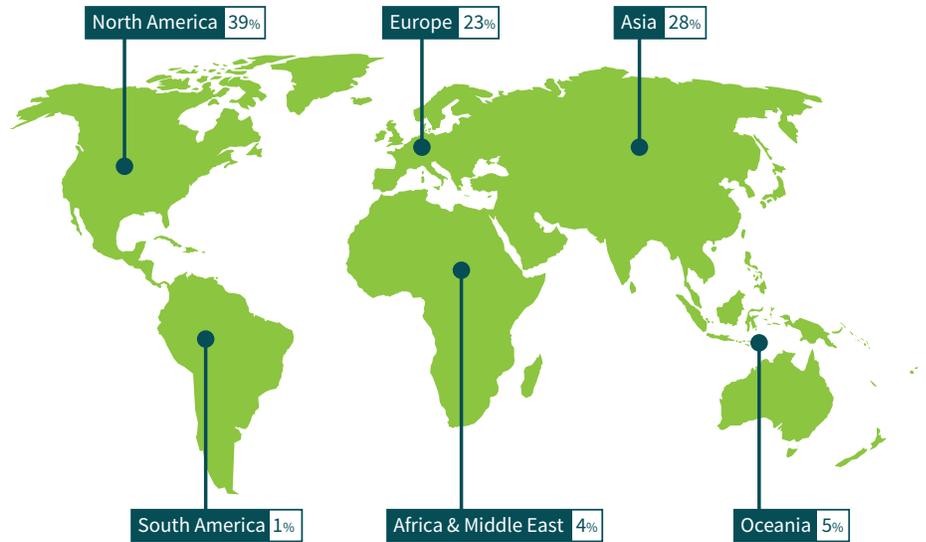
Shareholder Meetings Voted

68,469

Individual Proposals Voted

56

Global Markets Voted



Integrating Relevant Factors into PERA’s Proxy Voting Decisions

Proxy Voting

The goal of PERA’s proxy voting activities is to encourage the alignment of corporate interests with long-term shareholder interests. These activities are governed by the Board through its *Proxy Voting Policy (Policy)*, which was established in 1979 and is periodically re-evaluated and updated through the Board’s Investment Committee in order to enhance applicability as markets and regulations evolve. The Policy guides staff in formulating vote decisions and acts as a public statement on why and how we make voting decisions, and can guide conversations with companies, peers, and stakeholders around PERA’s stance on a variety of issues that can affect financial value.

The Board updated its *Proxy Voting Policy* in 2021. The Policy enhancements achieve the Board’s strategic plan objective to update the voting guidelines and solidify a position on ESG issues that can affect our financial success over the long term.

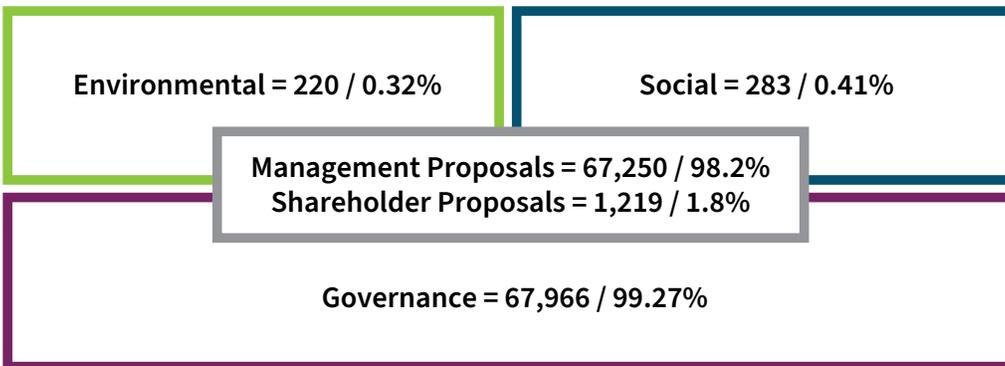
The revisions clarify the intention of the Policy, increase transparency into PERA’s proxy voting activities, and modernize the covered ballot topics. The enhanced Policy includes an expansion on existing language pertaining to disclosure of financially material environmental and social risks and opportunities. The new Philosophy Statement within the Policy states:

“...financial sustainability remains our priority in all investment and proxy voting decisions. To the extent that other sustainability factors—such as those pertaining to the natural environment or society—are financially material to a particular investment within the PERA portfolios, they are integrated into our decision framework. PERA acknowledges that financial materiality is dynamic, subjective, and may vary by investment. By focusing on materiality in our proxy voting decisions, we believe we can direct PERA’s resources toward issues that are most pertinent to the expected risk-adjusted returns of our investments, in line with our fiduciary duty.”¹³

When staff vote on ballot proposals within the parameters of the Board’s Policy, we may consider advice from our contracted proxy advisors, as well as our internal investment analysts and portfolio managers, to better understand the issues and how they are expected to affect our investments in the company.

PERA’s 2023 Proxy Votes by Category

Of all proposals that come to ballot, 99.3% are Governance related. Environmental and Social related proposals combined make up 0.7% of the proposal record.



What does this mean for PERA members?

PERA practices responsible share ownership by exercising our right to vote on important matters that can affect a public company’s long-term profitability and the investments we make on behalf of our members.

The primary function of PERA’s *Proxy Voting Policy* is to guide staff in executing votes that encourage long-term shareholder value generation through strong governance of the publicly traded companies in which PERA holds stock on behalf of plan beneficiaries.





INTEGRATE



Management Proposals

PERA supports proposals that uphold best practices in corporate governance, and will hold director nominees accountable by voting against those who have not demonstrated alignment with long-term shareholder interests. One of the most effective ways for long-term shareholders to influence corporate behavior through proxy signals and engagement is by voting against, or withholding votes from, director nominees who do not act in the best interest of shareholders.

PERA's votes on management-sponsored proposals are a signal to companies to act in the best interest of long-term shareholders.

Votes on Management-Sponsored Proposals

87%

Support for Director Nominees
(32,682 total proposals)

92%

Support for Auditor Ratification
(1,852 total proposals)

- The auditor's role is crucial in ensuring the integrity and transparency of the information necessary for protecting shareholder value.

80%

Support for Executive Compensation
(1,838 total proposals)

- Compensation packages should be aligned with long-term performance and business strategy, and allow for an annual say-on-pay vote.

93%

Support for Mergers and Acquisitions
(334 total proposals)

- Each proposal regarding a merger and/or acquisition is unique, with a variety of discrete factors and potential implications to be considered in evaluating each deal brought to shareholder vote.

73%

Support for Say-on-Climate
(22 total proposals)

- PERA will generally support well-targeted proposals for enhanced disclosure of how companies are assessing and managing financially material climate-related risks and opportunities.

Holding Boards Accountable to Shareholder Interests

PERA focuses on governance quality and effectiveness, which are expected to deliver sustainable long-term returns to shareholders.

- PERA holds boards accountable for appropriate oversight of material governance, social, and environmental matters by voting *Against* or *Abstain* on director nominees charged with committee oversight.

PERA voted against 4,712 director nominees in 2023 due to the following:

- PERA is *Against* executive compensation proposal and nominee has served on the compensation committee.
Against Nominee
- PERA is *Against* auditor ratification due to non-audit fees exceeding a quarter of all fees paid to the auditor.
Against Audit Committee Chair
- The board is not sufficiently independent and the nominee has served on the Nominating Committee.
Against Nominee
- The board lacks sufficient competency, diversity, or timely refreshment and the nominee serves as Nominating Committee Chair.
Against Nominee
- The nominee serves on too many boards, potentially weakening effective oversight.
Against Nominee
- The nominee has a poor record of attendance at board meetings.
Against Nominee

PERA advocates for the following core governance principles:

- » Directors should be elected by a majority shareholder vote.
- » Declassified boards are considered a best practice and enhance accountability.
- » Proxy access gives the shareholder the ability to nominate a director.
- » Independent board chair promotes greater accountability.



INTEGRATE



Shareholder Proposals

PERA supports shareholder proposals that are well-targeted, demonstrate financial materiality and expected benefit, and which do not overstep into management decisions that should be left to corporate boards.

Shareholder Proposal Voting



Environmental

	Number of Proposals	Percent Support	
● Climate Lobbying	10	100%	<div style="width: 100%; height: 10px; background-color: #6aa84f;"></div>
● Greenhouse Gas Emissions	50	28%	<div style="width: 28%; height: 10px; background-color: #f1c232;"></div>
● Phase Out of Nuclear Power	9	0%	<div style="width: 0%; height: 10px; background-color: #3498db;"></div>
● Other Environmental Issues	64	9%	<div style="width: 9%; height: 10px; background-color: #3498db;"></div>
● Climate Change and Sustainable Strategies	65	20%	<div style="width: 20%; height: 10px; background-color: #7ed321;"></div>

Social

● Diversity Reporting	12	50%	<div style="width: 50%; height: 10px; background-color: #e67e22;"></div>
● Human Capital Management	23	48%	<div style="width: 48%; height: 10px; background-color: #27ae60;"></div>
● Report on Compliance with International Human Rights	28	61%	<div style="width: 61%; height: 10px; background-color: #c07040;"></div>
● Other Social Issues	165	11%	<div style="width: 11%; height: 10px; background-color: #c0392b;"></div>
● Political Spending/Lobbying	55	58%	<div style="width: 58%; height: 10px; background-color: #004d4d;"></div>

Governance

● Board Composition	20	20%	<div style="width: 20%; height: 10px; background-color: #90a478;"></div>
● Eliminating Supermajority Vote	13	46%	<div style="width: 46%; height: 10px; background-color: #2980b9;"></div>
● Election or Removal of Directors	67	24%	<div style="width: 24%; height: 10px; background-color: #f1c232;"></div>
● Independent Board Chair/Separation of Chair and CEO	86	86%	<div style="width: 86%; height: 10px; background-color: #c07040;"></div>
● Right to Call a Special Meeting	38	82%	<div style="width: 82%; height: 10px; background-color: #34495e;"></div>
● Race and/or Gender Pay Equity Report	12	42%	<div style="width: 42%; height: 10px; background-color: #e91e63;"></div>
● Other Governance Issues	502	29%	<div style="width: 29%; height: 10px; background-color: #6a3d9a;"></div>



INTEGRATE



PERA's 2023 Proxy Votes by ESG Label

A company's management of environmental, social, and governance matters can be nuanced, complex, and interrelated. This may present overlapping considerations for shareholders when casting their votes.

E ENVIRONMENTAL

Activities or products that may affect business and the natural environment

- Energy efficiency
- Air pollution
- Water scarcity
- Carbon emissions

220 Votes

6	Formation of Environmental Committee of the Board	▲
13	Climate Lobbying	★
50	Report on Greenhouse Gas Emissions	●
65	Climate Change and Sustainability Strategies	▲★
30	"Say-on-Climate"	
56	Other Environmental	▲

S SOCIAL

Activities or products that may affect business and society

- Equality
- Political influence
- Community
- Health and safety

283 Votes

12	Diversity Reporting	●
23	Human Capital Management	▲★
55	Political Spending/Lobbying	▲★
193	Other Social	▲

G GOVERNANCE

Activities that may affect the success of the firm

- Board independence
- Stakeholder alignment
- Executive compensation
- Management oversight

67,966 Votes

1,449	Meeting Administration	
2,124	Changes to Company Statutes	
4,408	Capital Management (Debt & Equity)	
8,600	Compensation	▲●
9,660	Other Governance	▲
9,043	Audit/Financial	▲
32,682	Director Elections	▲★



Shareholders can vote against director nominees to hold them accountable for responding to shareholder interests:

- » Nominating committee members should be attentive to board refreshment and declassification.
- » Audit committee members should be attentive to audit integrity.
- » Compensation committee members should be attentive to long-term value alignment.



Proposals may seek to link executive compensation with company performance in areas such as greenhouse gas emissions reductions or diversity targets.



Proposals may seek transparency into whether a company's lobbying activities are aligned with stated objectives such as employee rights or climate change strategies.



INTEGRATE



Case Studies

The following case studies provide examples of proposals voted by staff through case-by-case analysis, in line with the PERA Board's *Proxy Voting Policy*.

EXAMPLE FROM A UTILITIES COMPANY

ENVIRONMENTAL PROPOSALS

EXAMPLES OF PROPOSALS PERA VOTED IN 2023

EXAMPLE OF ENVIRONMENTAL-RELATED PROPOSAL PERA VOTED **FOR**

The company seeks shareholder approval of its Net Zero Transition Report for the year ending March 31, 2023.

PERA will generally support disclosure of financially material climate-related risks such as those prescribed by SASB and TCFD. The board and management are not seeking shareholder approval of their climate strategy, only of the disclosures the company makes about its management of climate-related risks and opportunities. The report is aligned with TCFD recommendations and includes information regarding the company's scenario analysis, advocacy, capital expenditures, and remuneration pertaining to its climate strategy. It also includes information about the company's short-, medium-, and long-term emissions for Scopes 1, 2, and 3. The company states they will hold discussions with shareholders to better understand investors' information needs if the report is deemed insufficient through this shareholder vote. This demonstrates a commitment to sound corporate governance in the best interest of long-term shareholders.



Reporting and Reducing Greenhouse Gas (GHG) Emissions

PERA will generally support well-targeted proposals seeking enhanced disclosure of material risks and opportunities related to GHG emissions.

EXAMPLE FROM A FINANCIALS COMPANY

ENVIRONMENTAL PROPOSALS

EXAMPLES OF PROPOSALS PERA VOTED IN 2023

EXAMPLE OF ENVIRONMENTAL-RELATED PROPOSAL PERA VOTED **AGAINST**

Shareholders request that the company adopt a policy to seek shareholder advice on its environmental policies on an annual basis.

PERA supports the board and management's role in setting corporate strategy and policies toward long-term profitability and shareholder return generation. PERA also supports corporate disclosure of financially material risks and opportunities pertaining to climate change and the company's strategy for managing them. While this proposal could enhance disclosure, there is significant concern that it could lead to an overstep of shareholders into setting corporate policy and strategy, which is a primary responsibility of the company's board and management.



Management Say-On-Climute Proposals

PERA will generally support well-targeted proposals seeking enhanced disclosure on how companies are assessing and managing financially material climate-related risks and opportunities.



INTEGRATE



EXAMPLE FROM A UTILITIES COMPANY

SOCIAL PROPOSALS

EXAMPLES OF PROPOSALS PERA VOTED IN 2023

EXAMPLE OF SOCIAL-RELATED PROPOSAL PERA VOTED **FOR**

Shareholders request the company update its lobbying expenditure and activity disclosure on an annual basis.

PERA supports properly targeted proposals that require board approval and disclosure of all political expenditures, such as political contributions, trade association spending, and lobbying activities, policies, and procedures. The company discloses some activities, oversight, and spending related to lobbying. However, it does not provide detailed information on its priorities or expenses regarding lobbying, nor does it disclose all its special interest group expenditures. Additional disclosures are expected to be cost effective and would enable shareholders to better assess the risks and opportunities associated with the company's political activities.



Lobbying Report Proposals

PERA will vote for reasonably structured and properly targeted proposals that require board approval and disclosure of all political expenditures, such as political contributions, trade association spending policies and activities as well as lobbying activities, policies, or procedures.

EXAMPLE FROM A HEALTHCARE COMPANY

SOCIAL PROPOSALS

EXAMPLES OF PROPOSALS PERA VOTED IN 2023

EXAMPLE OF SOCIAL-RELATED PROPOSAL PERA VOTED **AGAINST**

Shareholders request that the company report on the effectiveness of its diversity, inclusion, and equity (DEI) efforts.

PERA will generally support well-targeted proposals seeking financially material disclosures about a company's practices for recruiting, retaining, and representing talent across the organization. The company already discloses its DEI initiatives, plans, and progress, including quantitative metrics and workforce demographics. The requested report would not substantively enhance shareholders' understanding of the company's talent management or representation.



DEI Disclosure Proposals

PERA will generally support well-targeted proposals seeking financially material disclosures about a company's management and representation of talent.



INTEGRATE



EXAMPLE FROM AN ENERGY COMPANY

GOVERNANCE PROPOSALS

EXAMPLES OF PROPOSALS PERA VOTED IN 2023

EXAMPLE OF GOVERNANCE-RELATED PROPOSAL PERA VOTED **FOR**

Shareholders request that the company report on tax transparency, including disclosure of payments to governments, in line with the GRI Tax Standard.

PERA supports financially material disclosures about how a company is managing its risks and opportunities. The proposal seeks enhanced disclosures on tax-related matters, which could be considered a material aspect of the company's management of legal and regulatory compliance. The requested reporting is expected to be cost-effective and enhance shareholders' understanding of tax-related risks the company faces.



Tax Transparency Proposals

PERA supports proposals that aim to provide shareholders with clear and understandable information, allowing them to make informed assessments of the company's tax-related risks.

EXAMPLE FROM A FINANCIALS COMPANY

GOVERNANCE PROPOSALS

EXAMPLES OF PROPOSALS PERA VOTED IN 2023

EXAMPLE OF GOVERNANCE-RELATED PROPOSAL PERA VOTED **AGAINST**

The board seeks shareholder approval to amend the certificate of incorporation to limit the liability of certain officers for monetary damages associated with breaches of fiduciary care.

PERA believes corporate officers should be held to the highest standards when performing their duties to shareholders. The company cites limiting personal risk of financial burden to officers, improving ability to attract and retain talent, and state law allowance as reasons to support the proposal. However, the proposal would limit the liability of certain officers for monetary damages associated with breaches of duty of care owed to shareholders.



Officer Exculpation

PERA opposes unilateral bylaw or charter amendments that have the effect of materially diminishing shareholder rights.

PERA Chooses Engagement Over Divestment

Proxy voting is a powerful tool for investors like PERA, which choose engagement over divestment in exercising responsible asset management to meet their investment objectives.

ENGAGEMENT

As the Board's *Statement on Divestment* states, PERA serves the singular purpose of ensuring the retirement security of Colorado's current and former public servants. It would be virtually impossible to invest in a way that suits each member's individual social or political beliefs.

In order to provide retirement benefits, PERA must pursue the best expected risk-adjusted returns in the market. One of the most fundamental ways to maximize returns while reducing risk is to diversify the portfolio across geographical regions, industries, and companies. One of the reasons the Board opposes divestment is that it can be a slippery slope that reduces diversification.

PERA does not make investment decisions based on any one singular factor. Securities prices are dependent upon many factors, including economic, political, environmental, industry, and company-specific risks and opportunities. Companies in our active funds are expected to be going concerns, meaning they are expected to adapt their operations to remain competitive in the market as economic factors change. For example, energy companies may have lines of business in oil and gas, as well as in innovative renewable energy sources to keep pace with changing energy needs.

The Board's *Statement on Divestment* also describes that PERA opposes divestment because it can be costly to identify and execute divestment transactions and find other appropriate investment opportunities with similar risk-return profiles. The target company would not incur those costs to divest—PERA would.

Instead of divestment, PERA chooses engagement. We engage directly in conversation with the companies in which we actively invest to understand their business opportunities and risks, and encourage profitable practices. We also exercise our legal shareholder rights to vote on important matters that can shape the company's practices and profitability.

Meeting with the company and voting on corporate ballot items enables us to engage the company's management, signal best practices in the market, and influence corporate behavior. These changes don't happen overnight. They happen over months, years, and even decades. As long-term shareholders, PERA retains our seat at the table to advocate for practices that add financial value for the ultimate benefit of our members.

DIVESTMENT

Some investors may decide to sell their holdings in companies or industries because they believe the company's business activities are misaligned with their own social or political beliefs.

Tobacco, fossil fuels, sugar, renewable energy, and guns are examples of the types of businesses that divestors may not like. They may choose to divest from certain companies based on thresholds like the percentage of revenue derived from such activities, or from any company doing any business that ties back to these activities. For example, they may extend divestment to include grocery stores that sell soft drinks or propane.

A divestor may also sell their stock because they think a company will go out of business because it is operating in an industry the divestor thinks will not survive. For example, a divestor may sell their stock in an energy company because they worry the stock will lose value as interest in renewable energy sources grows.

When an investor sells a stock, there is another investor on the other side of the transaction buying that stock. The company is not part of the transaction, and thus there is no financial impact on the company (i.e., the cash flows of buying and selling a stock do not involve the company).

When the divestor no longer owns shares, they lose the right to vote on important company matters that come to shareholders for approval. Such matters may include those that could address the divestor's concerns, such as requiring the company to report on how it is strategizing to remain competitive in the transition to a lower carbon economy.

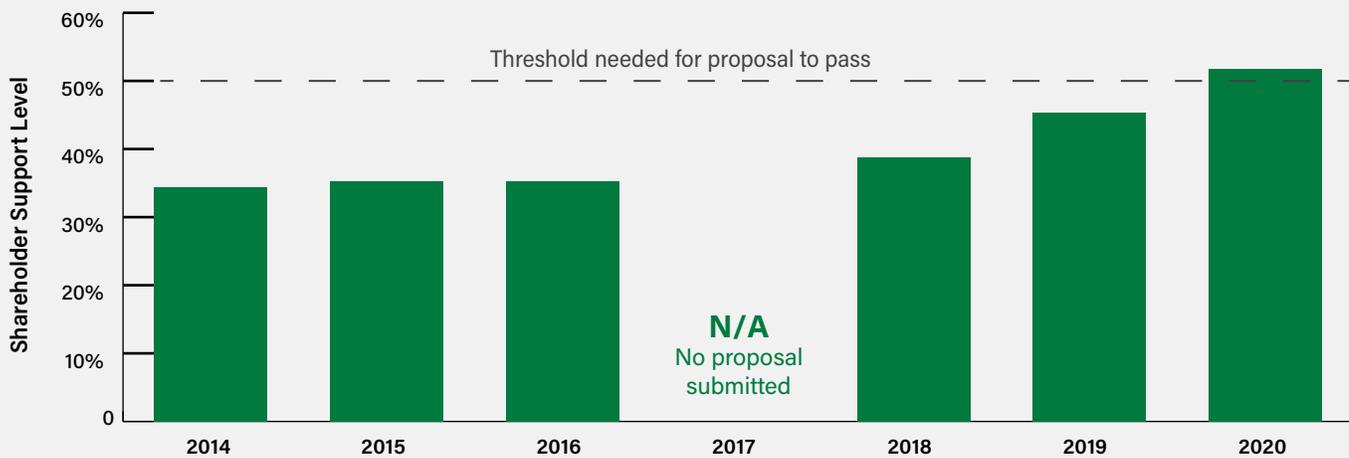
While stock changes hands in the market, the company continues to be attentive to its current shareholders. Because the divestor no longer holds shares, they don't have a seat at the table, so to speak. Their seat may even have been taken by an investor who likes all the things the divestor didn't, and who encourages the company to continue doing them.

Example of PERA's Long-Term Engagement Through Proxy Voting

Companies may make political contributions or other expenditures related to lobbying activities as individual entities or through trade associations operating on their behalf. Such spending is increasingly tied to various environmental, social, or governance related issues which may or may not be aligned with the company's stated objectives or shareholder interests. PERA will vote for reasonably structured and properly targeted proposals that require board approval and disclosure of all political expenditures, such as political contributions, trade association spending policies and activities as well as lobbying activities, policies, or procedures.

In the case below, a proposal came to ballot multiple times asking a healthcare company to provide an annually updated report concerning its direct and indirect lobbying activities and expenditures. Each time, PERA voted in support of the enhanced disclosure. After six years, the proposal earned majority shareholder support. By voting on corporate matters that can impact profitability and returns over the long run, PERA will continue to uphold its fiduciary duty by engaging company management, signaling best practices, and influencing corporate behavior to promote financially sustainable practices for the ultimate benefit of PERA members and their beneficiaries.

PERA Remains Engaged Through Proxy Voting



Source: Institutional Shareholder Services, Inc.; Colorado PERA



ADVOCATE



ADVOCATE



We promote fair and transparent markets by contributing our expertise to regulators and financial industry advisory boards in advocacy of best practices that serve long-term investor interests.

PERA's advocacy philosophy is centered on three principles: fair markets, alignment, and disclosure. We believe markets that treat participants in a fair and equitable manner are beneficial to all long-term investors. We believe aligned interests of companies and investors are paramount to company success in the long run. We believe that as owners and creditors of a business, investors deserve robust and accurate information on financial and operational results.

Advocating for Alignment

PERA aims to invest in firms with a history of strong business practices, and we monitor our partners on an ongoing basis to ensure they continue to act in the best interest of their investors. To that end, we hold meetings with corporate management, conduct thorough due diligence reviews on fund managers, analyze management track records, hold positions as advisory board members of our investment partnerships, and seek recovery of assets through securities litigation when necessary.

Investment Fund Advisory

PERA participates in private market fund advisory groups to advance best practices in investment management. Participation in these advisory boards and committees is an integral part of developing oversight and financial performance. As members of these committees, PERA staff may be responsible for reviewing valuation methodologies, examining conflicts of interest, and governing the fund partnership. This gives us the opportunity to advocate for practices that may influence profitable outcomes and improve the financial sustainability of our investments.



ADVOCATE



See the "Advocate" video for a snapshot of how PERA advocates for stronger markets on behalf of our members at copera.org/stewardship.

i What does this mean for PERA members?

By encouraging stronger market integrity, we help safeguard the integrity of our members' retirement portfolios.

Securities Litigation

Ideally, company interests are aligned with investors' interests through sound governance. However, the temptation for management to act in ways that benefit themselves over investors is always present. If company management is not acting in the best interests of long-term shareholders, investment returns will suffer. Academic research has estimated corporate fraud costs the U.S. economy between \$180 and \$360 billion dollars a year.¹⁴ This has a significant impact on shareholder value.

Deterring fraud and creating a culture of accountability through securities litigation are part of PERA's commitment to being good stewards of Total Fund assets. When public companies act fraudulently, we exercise our rights through litigation to hold the company accountable and collect PERA's share of recovered assets. These claims are in themselves assets of the Total Fund, and as such, it is within our fiduciary duty to pursue recovery in this manner.

Pursuant to the Board's *Securities Litigation Policy*, we utilize the expertise of internal and external counsel, as well as our custodian bank, to identify claims and evaluate our participation eligibility. Many cases brought in the U.S., as well as foreign jurisdictions, are passive cases that require PERA only to file a claim for recovery. In those cases, PERA is not in a decision-making role, but will receive a pro-rata share of recovered assets.

However, there are circumstances where it is appropriate for PERA to pursue active participation in a case, which can include seeking a lead plaintiff of a class or opting out of a class action to bring a separate action. To determine whether PERA should pursue active participation, we examine a variety of factors, including the viable avenues of litigation; assets lost by PERA; the strength of the legal claims; and legal requirements in the defendant's country of incorporation. We believe this private right of action, when combined with regulatory enforcement actions, helps deter future corporate fraud for the ultimate protection of shareholders' interests.

We believe:

- » Markets that treat participants in a fair and equitable manner are beneficial to all long-term investors.
- » Aligned interests of companies and investors are paramount to company success in the long run.
- » As owners and creditors of a business, investors deserve robust and accurate information on financial and operational results.



What does this mean for PERA members?

By holding our portfolio management partners and public companies accountable, we can encourage practices that lead to reliable profitability on behalf of our members.



ADVOCATE





ADVOCATE



Advocating for Disclosure

Investors require accurate and timely information from companies in order to adequately assess and project the overall performance of their investments. Disclosure transparency may vary by company and between private and public markets. Likewise, regulatory policies for financial reporting may vary by country, sector, or industry. Furthermore, the true financial value of intangible assets can be difficult to identify and quantify. These disclosure gaps create obstacles for investors to navigate in pursuit of reliable valuations.

As PERA continues to advocate for stronger capital markets, we recognize the need for increased availability and quality of financially material disclosures. Our investors lend their expertise to accounting and audit standards boards to develop and promote transparent and accurate disclosures regarding companies' operations and financial positions. We believe reliable and decision-useful disclosures about financially material risks and opportunities bring transparency and strength to financial markets.



What does this mean for PERA members?

With more transparency in the market we can make better investment decisions on behalf of our members.

Did You Know?

PERA staff and external fund managers conduct due diligence and independent research to inform our active investment decisions. In our fundamental analysis, we utilize corporate disclosures made through regulatory filings and voluntary reporting. Such disclosures may pertain to a broad range of topics that can impact financial performance, including material climate-related risks and opportunities.

Financial impacts to companies and investors may stem from the physical realities of climate change, such as natural disasters, rising sea levels, and drought. Material impacts of these physical risks may include increased insurance costs, devalued assets, and loss of inventory or productivity. Financial impacts may also stem from changing regulations, technologies, and consumer preferences in the transition to a lower carbon economy. Such impacts may include costs to improve energy efficiency, margin changes due to supply and demand fluctuations, and legal fines. When businesses disclose how they are managing material risks and opportunities, investors like PERA are better able to allocate capital in line with long-term risk-adjusted return expectations.

In 2021, the U.S. Securities and Exchange Commission (SEC) solicited public input as to whether and how it should regulate climate-related and other ESG disclosures.¹⁵ PERA submitted a comment letter in response to the SEC's solicitation, advising the SEC to maintain its focus on financial materiality and to take a watchful approach in its rulemaking with consideration to emerging international regulations.¹⁶

In 2022, the SEC released its proposed rule package on *The Enhancement and Standardization of Climate-Related Disclosures for Investors*.¹⁷ In June 2022, PERA submitted a comment letter in response to the proposed rulemaking, again emphasizing the need for corporate disclosure on financially material risks and opportunities associated with climate change.¹⁸ In 2024, the SEC finalized its climate-related disclosure rule.¹⁹ The rule has been stayed amid legal challenges.²⁰

PERA will continue to advocate in support of financially relevant disclosures that help investors understand how physical and transition risks are affecting portfolio companies' long-term business prospects and returns to investors. Where laws do not mandate such disclosures, PERA supports voluntary reporting of material climate-related risks and opportunities under standardized reporting schemes such as those recommended by the former Taskforce on Climate-related Financial Disclosures (TCFD) and the Sustainability Accounting Standards Board (SASB), both of which are now monitored under the International Sustainability Standards Board of the IFRS Foundation.



ADVOCATE



Advocating for Fair Markets

PERA believes that fair and equitable markets are in the best interest of our members. Given PERA's size and reputation, we can have a meaningful impact in creating markets that are designed for the benefit of investors. We advocate for all investors by engaging with regulatory bodies, supporting investor-friendly legislation, and participating in advisory groups to develop and share best practices across asset classes. In our efforts to help improve global capital markets for investors, our staff and Board members provide their expertise to various regulatory boards and capital market organizations.

Advocacy Groups in Which PERA Investments Staff Participated in 2023

Organization	Group	Focus
Chartered Alternative Investment Analyst Association (CAIA)	Allocator Advisory Council	Alternative Investment Practices
Chartered Financial Analyst Institute (CFA)	Diversity and Inclusion Steering Committee	Inclusive Human Capital
Chartered Financial Analyst Society of Colorado	Board of Directors, Advocacy Committee	Investor Education
Colorado Office of Economic Development and International Trade	Venture Capital Authority Board	Access to Venture Capital
Council of Institutional Investors (CII)	U.S. Asset Owners Advisory Council	Asset Owner Perspectives
Financial Accounting Standards Board (FASB)	Small Business Advisory Committee	Accounting Standards
Harvard Institutional Investor Forum	Advisory Council	Institutional Investor Perspectives
Healthy Markets Association	Board of Directors	Market Structure Reform
Institutional Limited Partners Association (ILPA)	Membership	Private Market Partnership Practices
International Corporate Governance Network (ICGN)	Board of Directors, Financial Capital Committee	International Corporate Governance Policies
National Council of Real Estate Fiduciaries (NCREF)	Membership	Real Estate Performance and Standards Metrics
Public Company Accounting Oversight Board (PCAOB)	Investor Advisory Group	Audit Integrity and Regulation
Pension Real Estate Association (PREA)	Membership	Institutional Investor Education
Stanford Institutional Investors' Forum	Membership	Institutional Investor Perspectives
International Financial Reporting Standards Foundation (IFRS)	Technical Readiness Working Group	Sustainability Disclosure Standards
University of Colorado Burrigge Center for Finance	Advisory Committee	Education in Finance



EVALUATE



EVALUATE

Evaluating our portfolios through different lenses helps us see underlying exposures from diverse perspectives.

PERA Board and staff monitor the investment portfolio on an ongoing basis. Returns, performance attribution, and risk are among the common metrics investors use to track their portfolios and compare the performance of their investments against benchmarks. In addition to these traditional financial metrics for portfolio evaluation, PERA can evaluate nonfinancial indicators through various lenses to get a better sense of exposures underlying our portfolios. These can include metrics pertaining to environmental, social, or governance themes. We do not manage PERA's investments to these factors; rather, they are an additional lens through which we can view our portfolios. Such insights are often of interest to PERA's members and partners, and we present them here in response to those interests.

Did You Know?

Financial performance is PERA's investment priority. Our investment decisions are driven solely by our expectations for long-term risk-adjusted returns. As of December 31, 2023, our long-term DB portfolio performance achieved:²¹

- ▶ 10.0% annualized 5-year net return
- ▶ 7.8% annualized 10-year net return
- ▶ 7.7% annualized net return since inception
- ▶ \$82 billion generated by PERA's investments over the past 30 years

Benchmarking ESG Exposures

PERA has engaged with MSCI to access index constituent data, risk management tools, sector data down to the sub-industry level, and independent ESG ratings and research that inform our portfolio evaluations. MSCI conducts detailed research on over 10,000 companies and scores them based on their ESG-related risks, and their effectiveness in managing those risks. MSCI's ESG scores are dynamic and fluctuate through time based on company practices evaluated under their research and scoring methodologies. In general, MSCI asserts that companies that score more highly are expected to have a greater ability to manage and mitigate company-specific risks, and to be more resilient when confronted with fluctuations in financial markets and regulatory policy.²²



EVALUATE



See the "Evaluate" video for a snapshot of how PERA evaluates our investments on an ongoing basis copera.org/stewardship.

i What does this mean for PERA members?

With growing interest in socially and environmentally friendly investing themes, members may like to see how PERA's investments perform under nonfinancial indicators.

ESG performance reports do not inform our portfolio management decisions; rather, they give us a different perspective on existing investments.

The information provided by MSCI is supplementary to our fundamental analysis of material factors pertaining to a company's financial sustainability throughout the holding period. We do not manage portfolios to target any specific ESG metric or outcome. As PERA actively manages assets with consideration to financially material factors, the composition of our portfolios may change over time, resulting in ESG score fluctuations for PERA portfolios and their benchmarks. Scoring fluctuations may also result from changes to MSCI's methodologies and practices of subject companies through time.

Other ESG Exposures

In addition to tools for portfolio benchmarking on a range of ESG scores, PERA uses MSCI tools that allow us to evaluate various ESG exposures within our public company investments on an absolute basis.

Through these assessments, we have identified the following exposures to ESG related themes within the PERA portfolio. All results represented below are aggregated for public company holdings within the PERA DB portfolio and are based on metrics provided by MSCI. MSCI develops these metrics through data they collect from corporate disclosures (e.g., regulatory disclosures, sustainability reports, proxy reports, AGM results, etc.), government databases, nongovernment organizations, and other stakeholder sources. The scores and metrics represented in this report are expected to change through time as PERA's investments change, MSCI's metrics evolve, and as companies' practices shift.

As with the benchmarking assessments, we do not use these results to drive our investment decisions because we do not have ESG targets or objectives in our portfolio management. We use these tools to provide additional perspectives on the underlying exposures in order to inform our reporting to stakeholders who may have interest in these themes, which exist within the portfolio as a byproduct of our financially focused investments.

\$1 billion invested in companies that score highly* for greenhouse gas mitigation strategies including use of cleaner sources of energy, energy consumption management, and operational efficiency enhancements.



\$11 billion

Invested in companies targeting net zero emissions



\$2 billion

Invested in companies with programs to reduce water consumption across all operations



\$16 billion

Invested in companies that have programs to facilitate workforce diversity



\$1 billion

Invested in companies that have adopted formal human rights policies aligned with the UN Declaration of Human Rights or equivalent



\$111 million

Invested in companies that score highly for having strong programs and policies on conflict and human rights, community impact, and the distribution of benefits to local communities*



\$1 billion

Invested in financial companies that score highly for proactively addressing environmental risks in their financing decisions*



\$317 million

Invested in the top quartile of insurers that integrated climate change effects in their actuarial models while developing products to help customers manage climate change related risks**

* Includes companies with scores of 80% or higher as evaluated by MSCI.

** MSCI quartile rankings are relative to companies in the relevant ESG rating industry that are constituents of the MSCI ACWI.

INDUSTRY PERSPECTIVES ON SUSTAINABLE INVESTING

PERA is a sophisticated investor operating in dynamic market contexts. We are committed to pursuing opportunities that make good economic sense, in line with our mission and fiduciary duty.

In this section we look at the broader context of sustainable investing themes and practices, and how these may inform PERA's investment stewardship. We discuss why sustainability matters to investors, approaches to sustainable investing that investors may take in meeting their unique objectives, and obstacles that investors encounter in effectively evaluating the financial impact of sustainable investing.

WHY SUSTAINABILITY MATTERS TO INVESTORS

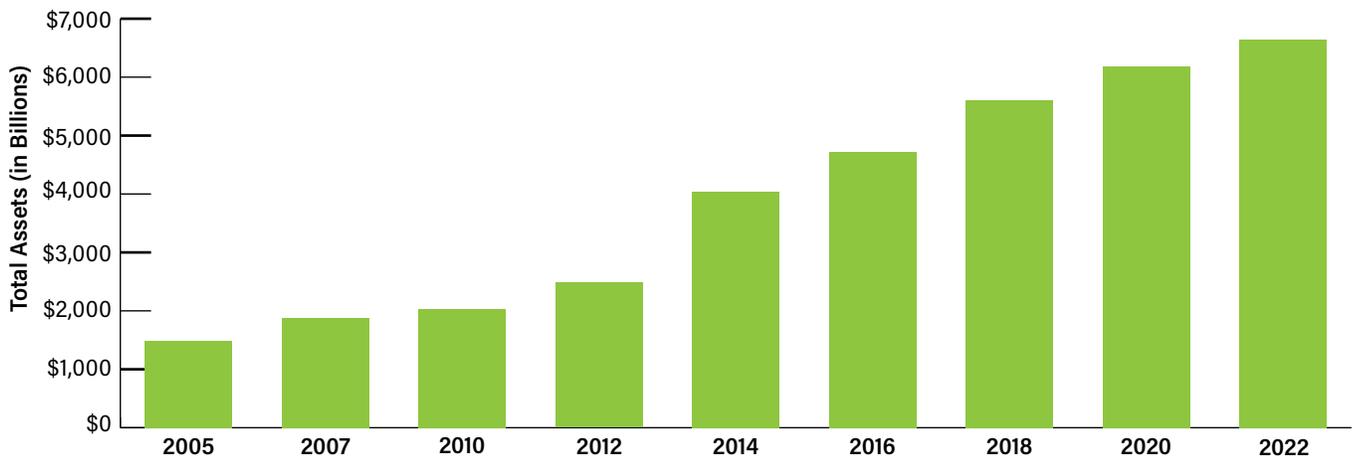
As markets evolve across changing political, social, environmental, and economic landscapes, sustainable business practices are increasingly viewed as integral to long-term success. Investors, consumers, regulatory authorities, and businesses are becoming more interested in sustainability factors and how they correspond to best practices, innovation, competitive advantages, and profitability.

Sustainable Investing is a Growing Component of the Global Economy

Sustainability factors that could affect the success of a firm may include: carbon emissions, labor rights, natural resource utility, executive oversight, animal welfare, corporate culture, and social impact, among a host of others. The relevance of sustainable practices in business varies by firm and industry, and is also tied to various government regulations. As countries adopt or reject standards for sustainable practices, businesses may adapt to meet those regulations to remain competitive.

With increased awareness on sustainable technologies and practices, some market participants are becoming interested in investments that promote global stewardship while providing strong returns. There is rising demand from consumers, investors, and company executives for corporate alignment with sustainable interests.²³ The economic impact of interest in sustainable investing has been significant.

ESG Incorporation Reported by Institutional Investors 2005-2022



Source: U.S. SIF: The Forum for Sustainable and Responsible Management

Note: Assets under management in 2022 represent US SIF's new modified methodology.

The Forum for Sustainable and Responsible Investment reported a 7.5% increase in assets under management in sustainability aligned investment strategies among institutional investors from 2020 to 2022.²⁴ As of 2022, institutional investors, like PERA, that incorporate ESG considerations to various degrees in their portfolio management represented approximately \$7 trillion in assets under management.²⁵ These data demonstrate that sustainable investing is not a passing fad, but rather an integral component of global markets.

Sustainability May Signal Quality and Longevity

As market participants become more interested in sustainable practices, companies have opportunities to meet evolving demand in new ways. Firms that are adept at managing risks and seizing opportunities, including those presented by sustainability, may maintain competitive advantages through changing markets.

Consider a firm that invests in manufacturing equipment to meet consumer demand. If the firm invests in new technology designed to decrease carbon emissions and increase operator safety, the firm can boost productivity while mitigating risks to the well-being of its employees and the environment. These stewardship efforts may also mitigate financial risks as sustainable technologies might be cost saving for the firm in the long run. Investing in new technology may also help the firm avoid punitive financial damages that could be assessed through legal and regulatory fines resulting from potentially negligent business operations.

Beyond managing risks, stewardship efforts can create new opportunities for companies to maintain competitive advantages. For example, buildings that meet requirements for sustainable certifications can maintain significantly higher occupancy rates while receiving higher rent revenues than buildings without sustainable operations.²⁶ Sustainable buildings may include grand features to capture renewable energy, or smaller scale features that minimize energy use within the building. These efforts can improve the quality of building environments, attract tenants, and efficiently meet tenant demands over the long run.

Sustainable practices also encompass the core competencies of an organization. Company culture, employee engagement, executive oversight, board independence, community investment, innovative intellectual capital, and alignment with stakeholders are examples of stewardship factors that can drive long-term success. Firms that foster organizational sustainability can attract and retain high-quality talent, increase productivity, reinforce ethical and professional standards, and improve client satisfaction. In this way, the integration of sustainability efforts may signal a company's quality and capacity for longevity.

Sustainable technologies and practices may maximize operational efficiency, improve production, attract consumers and investors, and increase revenues. Long-term oriented efforts can also decrease operational costs and consumer price sensitivities. Combined, these factors may significantly boost profits. When these efforts impact a firm's financial success, they become financially meaningful to stakeholders.

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“We encourage our private fund partners to develop and utilize holistic frameworks that seek to integrate financially material factors into the due diligence process and portfolio construction.”

—Gary Ratliff

PERA Director of Alternatives

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HOW INVESTORS INTEGRATE SUSTAINABILITY INTO PORTFOLIOS

The magnitude of vernacular used to describe sustainability is almost as complex as the multitude of approaches to integrating sustainability within the investment industry. Even as ESG investing becomes more prominent within the investment industry, there is no one-size-fits-all terminology or approach. Because investment objectives vary widely among investors, investors may choose to implement any combination of options along a broad spectrum of approaches to sustainable investing. As investors seek new ways to identify and measure exposures within their unique portfolios, applications for understanding and effectively integrating sustainable investing become increasingly diverse.

A Simplistic View of the ESG Screening Spectrum

In simplified terms, approaches to ESG investing may range from negative screening to positive screening. There are infinite points along the spectrum where investors may combine elements of either or both of these approaches to meet their objectives. Using negative screening approaches, investors may choose to exclude certain types of investments from their portfolios based on one or more ESG factors (divestment). On the other end of the spectrum, investors may employ positive screening approaches to include certain types of investments in their portfolios based on one or more ESG factors (impact investing).

Personal Values-based Investing

Both divestment and impact investing are personal, values-based approaches to ESG investing. The aim of divestment is to withhold financing from firms that do not adhere to an investor's personal values. Vice versa, the aim of impact investing is to supply financing to firms that adhere to an investor's personal values. As such, the subject of divestment or impact investing may have more emotional benefits than material financial implications for individual investors and the targeted companies.

NEGATIVE SCREENING



A popular example of negative screening is divestment. In the context of ESG investing, divestment refers to selling and abstaining from investments in firms or products that are deemed adverse to an overriding philosophical ideal, based on one or more ESG factors.

POSITIVE SCREENING



A popular example of positive screening is impact investing. In the context of ESG investing, impact investing refers to investing in firms or products that are deemed to align with an overriding philosophical ideal, based on one or more ESG factors.

PERA VALUES FINANCIAL SUSTAINABILITY FIRST AND FOREMOST

We use divestment and impact investing as examples at either end of the spectrum to illustrate how these approaches do not suit the objectives of all investors. While many investors may tailor their portfolios to suit their personal values, PERA invests on behalf of nearly 700,000 individuals who rely on our professional investment expertise to ensure their retirement security. As such, we do not invest to suit the personal beliefs of any individual entity. An investment strategy based on personal value systems may be impossible to implement in a way that reflects all our members' individual beliefs. Furthermore, such a strategy would be imprudent in fulfilling our fiduciary responsibility due to high implementation costs and imposed limits on PERA's ability to effectively seek the best risk-adjusted returns. Instead of investing based on personal values, PERA invests according to strong financial diligence.

PERA invests on behalf of nearly 700,000 individuals who rely on our professional investment expertise to ensure their retirement security. As such, we do not invest to suit the personal beliefs of any individual entity.

Did You Know?

PERA invests based on financial value, not personal or political values. This integrative approach supports our mission to provide retirement income to nearly 700,000 members, and benefit recipients.

✓ Value-based	× Values-based
<ul style="list-style-type: none">▶ Integration Approach▶ Prioritizes Financial Outcomes	<ul style="list-style-type: none">▶ Divestment or Impact Approach▶ Prioritizes Political, Social, or Environmental Outcomes

PERA's Divestment Policy

The PERA Board of Trustees explains the issue of divestment in their [Statement on Divestment](#), which begins:

"The world faces many critical issues today including genocide, pollution, terrorism, human and animal rights violations, and public health crises. As individual Americans, we enjoy the political and philosophical freedom to speak out against atrocities and join in those causes which are aligned with our personal beliefs. As an organization however, PERA does not have the authority to determine social policy, foreign policy, economic policy, or any other policy beyond the operation of the retirement system. PERA serves the singular purpose of ensuring the retirement security of Colorado's current and former public servants. Because global issues are difficult to prioritize and proper recourse falls beyond the duty of the retirement system, PERA will implement the divestment mandates passed by the Colorado General Assembly but would recommend the legislature thoughtfully consider such proposals with caution and fiduciary care."²⁷

The *Statement on Divestment* provides further discussion on PERA's fiduciary duty, divestment costs, as well as the "slippery slope" perspective of divestment and its potential limitations. PERA believes there are approaches beyond the scope of impact investing or divestment which may better help us achieve our investment objectives and long-term financial sustainability.

Did You Know?

PERA offers our members different options to direct their own retirement savings in alignment with their personal, environmental, and social values through the 401(k), 457 Deferred Compensation, and Defined Contribution Plans (CAPs). Members who elect to participate in these plans can invest in funds managed by investment experts who have identified companies as ESG leaders, or invest in individual securities of their own choosing based on their individual investment philosophies and objectives.

PERAdvantage Socially Responsible Investment Fund

The PERAdvantage SRI Fund seeks to produce a return above the index by investing in a portfolio of global equities and investment-grade fixed income securities. The equity portion seeks to replicate the return of the MSCI ACWI ESG Focus Index. The fixed income portion invests in U.S. dollar denominated securities that demonstrate environmental, social, and governance (ESG) leadership and direct and measurable environmental and social impact.

Through PERA's cost stewardship, we are proud to offer the PERAdvantage SRI Fund to participants at an annual cost of 0.21%²⁸ of assets invested. We believe the SRI Fund offers interested members the opportunity to invest in environmental and social responsibility-focused companies while pursuing retirement security.

Self-Directed Brokerage Account

Members who would prefer to make their own portfolio investment decisions can do so through the Self-Directed Brokerage Account (SDBA). This option allows participating members to invest their personal retirement contributions into thousands of publicly traded securities (e.g., stocks, bonds, and exchange traded funds) and mutual funds of their choosing through an individual brokerage account. Each participant assumes responsibility for their selection of investments and may include those which align with their own personal values.

ONGOING STEWARDSHIP FOR A FINANCIALLY SUSTAINABLE FUTURE

Under fiduciary duty owed to our members, PERA remains committed to sensible investment practices that advance our members' financial security in retirement.

PERA believes the path of stewardship is actively created, rather than achieved. As PERA pursues financial sustainability of the pension fund over the long-term, we will continue to assess investment risks and opportunities across three primary market drivers: supply and demand shifts, technological innovation, and regulatory and legislative policy changes. The dynamics among and between these impetuses will continue to evolve over time, presenting new investment risks and opportunities to consider.

As social and environmental changes affect consumer preferences, companies will need to respond with competitive offerings while maintaining financial integrity and profitability. Such products and services will necessitate innovation to meet the demands of a changing world. Evolving technologies will shape the way market participants develop competitive businesses, and in turn these practices inform new technologies. These may simultaneously raise awareness of external impacts of business on the environment, society, and the economy. With that awareness, regulation and legislation may change through time, creating new opportunities and risks for companies and their investors.

Throughout the evolution of these dynamics, we remain committed to serving as good stewards of plan assets by protecting members' interests through cost-conscious investing, integrating financially relevant factors in our decisions, advocating for competitive markets, and evaluating portfolio characteristics on an ongoing basis. These guiding practices of PERA's investment stewardship are firmly rooted in our fiduciary duty to maximize risk-adjusted returns to the portfolio, which will ultimately fulfill PERA's mission to provide retirement security to our members while ensuring the financial sustainability of the fund.

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“We don’t look one or two years down the road; we look out 15 or 20 years, and concentrate on the long-term viability of a company’s business model.”

—Jared Goodman
PERA Senior Equity Portfolio Manager

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APPENDIX: ADDITIONAL DISCLOSURES

PERA stakeholders may be interested in additional information pertaining to PERA's consideration of various environmental, social, and governance matters. We have adapted widely accepted reporting schemes to meet those stakeholders' interests.

These disclosures are inspired by reporting standards originally created by the Sustainability Accounting Standards Board (SASB) and the Taskforce on Climate-related Financial Disclosures (TCFD).ⁱ SASB Standards and TCFD Recommendations are now monitored and upheld by the International Sustainability Standards Board (ISSB) of the IFRS Foundation.ⁱⁱ As the ISSB continues to develop a global baseline of reporting standards for sustainability metrics, SASB Standards and TCFD Recommendations remain prevalent in mandatory and voluntary reports worldwide. Although PERA's disclosures are not intended to conform to the criteria of these schemes, we believe they support compliance with other reporting requirements to which PERA may be subject and provide our stakeholders with additional information about PERA's management of various risks and opportunities.ⁱⁱⁱ

DISCLOSURES INSPIRED BY SASB STANDARDS (PERA DATA AS OF DECEMBER 31, 2023)

What is the value of assets under management in the DB Plan that employ the integration of ESG issues, sustainability-themed investing, and screening? How does PERA integrate such considerations in its analysis?

As of December 31, 2023, the DB Plan held approximately \$61 billion in assets. Approximately 60%, or \$37 billion, of those assets were managed internally by PERA staff. The remainder of the portfolio was managed by external fund managers retained by PERA. All assets are managed under the Board's *Statement of Investment Policy*.

PERA does not have any ESG-themed investment mandates, nor do we screen our investments based on specific ESG criteria when deciding whether or not to include them in the portfolio. However, PERA staff will integrate related factors into investment decisions where they are financially material. Financially material ESG integration is more appropriate for meeting PERA's investment objectives than screening for criteria with the aim of impacting the environment or society. It is also better suited to our investment objectives than screening for divestment. PERA is opposed to divestment but will implement any divestment mandates required by the Colorado General Assembly. Those legislative mandates may be based on certain ESG criteria. In order to comply with such mandates, PERA may screen the portfolio for parameters determined by enacted legislation in order to identify and exclude the appropriate securities from the portfolio. For more information on the Board's stance on divestment, please see the [Statement on Divestment](#).

PERA's Global Equity portfolio is comprised of equity holdings in publicly traded companies and represents approximately \$34 billion of the Total Fund. PERA staff internally manage approximately 75% of these assets. Of the internally managed assets, approximately 60% are held in actively-managed portfolios. These portfolios are constructed using fundamental analysis to select securities for inclusion. In the internally managed active component of the Global Equity portfolio, securities are thoroughly analyzed to estimate their intrinsic value. As part of our analysis, PERA investment staff evaluate financially material factors, which may include those pertaining to ESG themes, to inform our investment theses. We do not make investment decisions based on only one factor but consider the full mosaic of material information available at the time of our decision.

In addition to traditional financial data and research, we obtain ESG research, analysis, and ratings for public companies through contracted services provided by an independent third party, MSCI ESG Research, LLC. We also contract related research, data, and analysis provided by proxy advisors, Glass Lewis and ISS. Our proxy advisory services include access to ESG data and analytics from third parties contracted by the proxy advisor. These data help inform our ESG integration where financially material, and resulting analyses are incorporated in stock recommendations made by our public equity investment staff. These data may also be incorporated in our investment and proxy voting decisions for stocks held in the Total Fund beyond the recommendation analysis, where they are expected to have an impact on a company's financials and stock performance over the long term.

PERA's Fixed Income portfolio is managed internally and represents approximately \$12 billion of the Total Fund. Bonds are selected for inclusion in the portfolio based on intrinsic and relative valuation models. We have approximately \$3 billion invested in corporate bonds. The expected risk-return characteristics of bonds are different than stocks and require different factor analysis for appropriate valuation. PERA staff utilizes research and ratings from third party providers such as Moody's, S&P Global, and other third-party providers (i.e., the sell side) to analyze the credit-worthiness of companies in the corporate bond portfolio. These providers include data and analysis on environmental, social, and governance matters that factor into

their credit ratings and recommendations. PERA staff may take these into account when selecting bonds for the portfolio, where they are believed to be financially material. Additionally, we have access to ESG ratings and data through Bloomberg as well as BlackRock's Aladdin risk module, which we use to evaluate and manage the portfolio.

In addition to corporate bonds, the PERA Fixed Income portfolio is invested in asset-backed securities, mortgage-backed securities, commercial mortgage-backed securities, and government-issued securities. In aggregate these represent approximately \$9 billion of the Total Fund. Security selection in these sub-asset classes is based on relative value models, which may factor in a wide range of traditional bond characteristics. PERA staff considers a variety of macroeconomic factors that can impact the value of fixed income investments, including those that may be presented by financially material ESG considerations. These may include the physical environmental risks associated with securities backed by assets exposed to severe or catastrophic weather events. In mortgage-backed assets, PERA staff may also consider regulatory developments that aim to hold government-sponsored enterprises that issue mortgage loans accountable to assessing risks associated with climate change and natural disasters, such as those in place by the Federal Housing Finance Agency (FHFA).

PERA's Real Estate portfolio represents approximately \$6 billion of the Total Fund and is invested in properties owned directly by PERA, as well as indirectly through externally managed private real estate funds. PERA has more than \$3 billion invested in directly owned real estate. The portfolio includes commercial office, industrial, retail, and multi-family residential buildings. As PERA staff pursue the best income-generating properties for inclusion in the direct-owned portfolio, we consider financially material information in our analysis. This may include environmental or social related risks and opportunities. Financially material environmental-related considerations may include energy and water efficient building features, or consideration of physical asset risk due to geographic location and exposure to extreme weather events. Social-related considerations may include tenant affordability and amenity preferences that can materially impact the value of our investments over time. Although PERA staff do not typically make decisions about which properties to include in externally managed funds, we may engage through due diligence to understand how those funds' managers are integrating material ESG factors in their decisions and how they uphold their stated ESG policies at the fund governance level.

PERA's Private Equity portfolio represents approximately \$5 billion of the Total Fund and is invested in externally managed funds with underlying portfolios constructed by those managers. PERA does not select which private companies are included in the underlying portfolios, and therefore is generally removed from the company-level analysis fund managers perform. As a result, we do not incorporate ESG factors into investee company selection. However, PERA staff may inquire about the fund manager's ESG policies and practices as part of our due diligence in selecting the funds and managers that we believe can add value to the PERA portfolio. The focus of our due diligence is primarily on fund governance and how managers are using investment capital to effectively pursue opportunities and manage risks in private markets.

PERA's Alternatives portfolio represents approximately \$4 billion of the Total Fund and is comprised of investment opportunities that do not fall within the other asset classes. These include private credit, opportunistic, hedge fund, and real asset investments, among others. Similar to the Private Equity portfolio, the Alternatives portfolio is invested in externally managed funds with underlying portfolios constructed by the manager. PERA does not select which specific securities, companies, or real assets compose the portfolio, and we are therefore removed from that granular level of analysis that fund managers perform. As a result, we do not incorporate ESG factors into underlying constituent selection. However, PERA staff may inquire about the fund manager's ESG policies and practices as part of our due diligence process to identify the funds and managers that we expect to provide attractive returns to the portfolio. Where certain environmentally or socially conscious practices would be expected to financially impact a business, we anticipate our managers are including those in their analysis. Our focus in identifying the best managers and funds for inclusion in the portfolio is primarily on fund governance and how managers are using investment capital to pursue opportunities and manage risks in their respective strategies.

How does PERA vote proxies and engage with public companies?

The Board's *Proxy Voting Policy* guides staff in formulating vote decisions aligned with our objective to pursue the best risk-adjusted returns over the long run. Within the parameters set forth by the Board, staff may consult proxy advisors, our internal Global Equity analysts and portfolio managers, as well as other research and institutional investors when executing votes.

Through the course of our proxy voting and ongoing active investment analyses, PERA investment staff may engage with public investee companies on matters pertaining to ballot measures or other considerations that can impact a company's operations and business. When engaging with these companies in our investment analysis, PERA staff may meet with corporate executive management and investor relations teams to delve into specific aspects of the company's business that are of interest to PERA's investment theses. Engagements resulting from the feedback mechanisms of proxy voting are generally led by PERA's Investment Stewardship staff which may coordinate with internal investors to identify areas of focus for engagement that are relevant to our investment theses or voting decisions. In such engagements, we uphold the Board's

positions as described in their *Proxy Voting Policy*. The Policy undergoes periodic reviews by the Investment Committee of the PERA Board and is updated at its discretion to maintain relevance to PERA's investment objectives and practicability in executing votes in an efficient manner.

What are the total assets under supervision, and the total registered and unregistered assets under management?

The PERA DB portfolio held approximately \$61 billion in assets as of December 31, 2023. PERA is an institutional investor, meaning we invest assets in trust on behalf of beneficiaries. Because we are not a traditional asset manager, PERA is not a Registered Investment Adviser under U.S. securities laws, and therefore the assets we manage internally are not registered. However, we may be required by the U.S. Securities and Exchange Commission to report public company holdings and proxy voting information under certain regulations, and we comply with such reporting mandates.

PERA utilizes external asset managers for a portion of the portfolio. The external managers we hire are registered with the appropriate regulatory agencies, and they manage approximately 40%, or \$24 billion, of the Total Fund.

DISCLOSURES INSPIRED BY TCFD RECOMMENDATIONS

How does PERA identify, assess, and manage climate-related risks and opportunities?

The PERA Board and PERA management evaluate risks posed to the association on an ongoing basis. However, PERA does not have an isolated practice for identifying climate-change-related risks to the Association or portfolio. Instead, PERA takes a holistic approach to evaluating and managing business and investment risks.

Pursuant to its *Governance Manual*, the PERA Board requires that management establish appropriate operational controls and risk management procedures and maintain appropriate insurance coverage to protect against liability which arises out of, or in connection with business risks PERA faces. The Audit Committee of the PERA Board and PERA's Chief Executive Officer/Executive Director work with the Director of Internal Audit and PERA management to ensure the effectiveness of PERA's internal controls and risk management systems, including systems for ensuring compliance with applicable laws, regulations, policies, and contracts. The Audit Committee meets with the Director of Internal Audit at least annually to review the effectiveness of internal controls and risk management systems.

The Chief Executive Officer/Executive Director is responsible for recommending appropriate insurance coverage to protect against liabilities arising from the need to repair or replace PERA property in the event of natural disasters. Other financial impacts of various risks to the Association are considered by the PERA Board and management in the annual budgeting process and on an ongoing basis. PERA management is responsible for reporting expenditures and recommending appropriate operating budget changes to the Compensation and Budget Committee of the PERA Board. The Compensation and Budget Committee is responsible for monitoring expenditures and recommending Board approval of PERA's annual operating budget.

Under fiduciary duty, the PERA Board and management defray reasonable costs in operating the Association, including the implementation of risk controls, in the interest of plan participants. Pertaining to PERA's investments, the Board and its Investment Committee evaluate risks to the portfolio within the context of achieving long-term risk-adjusted returns to pay retirement benefits to PERA members and their beneficiaries in perpetuity.

Per the *Governance Manual*, the Investment Committee is responsible for overseeing PERA's investment program and making related recommendations to the Board. As the Investment Committee and Board determine policies that govern PERA's investment program, they may discuss aspects of climate-related risks to PERA and the portfolio. These discussions may include topics related to physical risks of climate as well as risks and opportunities presented by the transition to a lower carbon economy.

The Chief Investment Officer is responsible for ensuring compliant implementation of the Board's *Statement of Investment Policy* for the Combined Investment Fund and *Proxy Voting Policy*. The investment objective set forth in the *Statement of Investment Policy* states:

"The function of PERA is to provide present and future retirement or survivor benefits for its members. This objective requires the prudent assumption of investment risk in seeking to maximize long-term investment returns while incorporating the fund's liability requirements."²⁹

To meet this objective, the Board has established acceptable parameters and return expectations for PERA staff to pursue under direction of the Chief Investment Officer. PERA's strategic asset allocation targets and permissible ranges are established and revised periodically following diligent asset and liability studies in order to effectively meet the Fund's pension obligations in perpetuity.

Under direction of the Chief Investment Officer, PERA investment staff also implement the Board's *Proxy Voting Policy*, which provides guidance to staff in executing shareholder votes aligned with PERA's investment theses and long-term risk-return objectives. Proposals requesting shareholder approval of climate-related risk and opportunity disclosures are voted as outlined in the Board's *Proxy Voting Policy*, with additional guidance from PERA management to fulfill the objectives of the policies, where appropriate.

How does PERA consider the impact of climate-related risks and opportunities on its investment strategy and resilience?

PERA's investment strategy and resilience center on its ability to achieve risk-adjusted returns over long time horizons in order to pay retirement benefits to our members and their beneficiaries in perpetuity. Financially material climate-related risks and opportunities are considered alongside a multitude of factors deemed material to PERA's actively managed investments at the time of decision and on an ongoing basis.

PERA recognizes that climate change poses short-, medium-, and long-term risks and opportunities. Risks include physical risks, such as those presented by natural disasters including fires, floods, and earthquakes. Physical risks also include drought, soil oversaturation due to heavy rainfall, and sea level rise due to ocean ice melt. These physical risks and their impacts may be difficult to predict in magnitude and regional distribution, and may occur frequently across the globe.

Climate change also poses risks to countries, businesses, and people in the management of the global transition to a lower carbon economy. As governments enact new laws and regulations to mitigate the negative impacts of climate change, businesses and consumers may be impacted through the availability of new technologies which may also cause shifts in supply and demand. As businesses respond to these economic drivers, investors are presented with both risks and opportunities to consider in their capital allocation decisions.

Physical and transition risks of climate change may impact financial performance of businesses and their investors. Increased insurance premiums, regulatory fines, asset impairments, supply squeezes, and reduced demand are examples of costs that may be borne as a result of climate change. Financial gains from adaptation to climate change may stem from competitive advantages, expanded market share, and reduced compliance costs.

Although climate change is a global issue, the risks and opportunities it brings are idiosyncratic, affecting different investments in different ways through time. This presents challenges to assessing the potential impact of climate-related risks at the Total Fund level. Portfolio-level assessments such as climate scenario analysis are costly and involve many assumptions of unknown events and economic sequences. Instead, PERA evaluates material climate-related risks and opportunities within the total mix of information available on a case-by-case basis when making active investment and proxy voting decisions. Sources of information PERA may use when considering these factors include regulatory filings and enforcement actions, financial statements, geographic data, proxy advice, sell-side research, and direct engagements with fund managers or portfolio companies.

As risks and opportunities change through time, PERA remains committed to maximizing risk-adjusted returns through diligent and cost-effective investment management, in line with our fiduciary duty. As such, there were no changes to PERA's investment strategy or metrics used to assess material climate-related risks and opportunities in 2023.

What actions is PERA taking to manage risks that climate change poses to its operations?

The Association's risk controls pertaining to climate change focus primarily on purchasing adequate property insurance coverage, maintaining critical business functions in the event of natural disasters, and increasing the energy efficiency of PERA's operational facilities.

PERA maintains property insurance coverage for its business facilities in the normal course of its business operations, including necessary coverage in the event restoration, recovery, or replacement of physical assets is needed due to natural disasters such as fires, floods, earthquakes, or tornadoes.

PERA's Business Continuity Plans include procedures for safe building evacuation and persistent fulfillment of critical business functions in the event of natural disasters. Each business line of the Association maintains Business Continuation Plans which include details such as required equipment and software needed to perform critical functions outside of PERA's office buildings, process and procedure documents, key vendor and consultant contacts; and procedures in the event of key personnel loss. These protocols are expected to mitigate negative financial impacts to the Association arising from physical climate risks by ensuring continuity of essential business functions.

In recent years, PERA has made significant progress in modernizing the operational systems of its main physical location at Penn Center to be more energy efficient. These improvements are expected to provide long-term energy cost savings to the Association, while reducing the carbon footprint of PERA's operational facilities.

Energy efficient improvements include HVAC upgrades to replace an outdated radiant heating system with a more energy efficient Fan Powered Variable Air Volume (FPVAV) system with automated and remote control of the building's heating and cooling. This system reduces energy consumption by running system fans at variable rates, directing the heat and cooling where it is needed, and operating at night when the main air handler is not running. PERA also installed a flat plate heat exchanger, which provides free cooling when outside temperatures are below 75 degrees Fahrenheit, replacing chillers that previously ran when outside temperatures were above 55 degrees Fahrenheit. Additionally, the building's cooling tower baffles and outside, return, and exhaust dampers have been replaced with more energy efficient models.

In addition to the HVAC upgrades, the Penn Center building has been upgraded to energy efficient lighting. LED bulbs replaced fluorescent and metal-halide light fixtures, reducing both the Association's consumption of electricity and replacement bulb waste. Energy consumption is further reduced by the installation of motion sensor wall switch plates in restrooms. These efforts are aimed at earning LEED® certification for stronger energy efficiency and cost-effectiveness in the Association's operations.

The Association is also increasing the efficiency and resiliency of its operations through digital service delivery models, which reduce reliance on physical resources that may become scarcer as a result of climate change. PERA now offers virtual webinars and benefits counseling sessions to answer questions from plan participants and empower them toward retirement success. Digital service enhancements also include a new PERA mobile app and digital formats for secure transmission of benefit forms, retirement applications, and account information. These virtual offerings enable PERA members and retirees to conduct account business from the comfort of their home, potentially reducing statewide travel and related emissions.

These initiatives are driven by PERA's commitment to serving plan participants with excellence and cost-efficiency under fiduciary care. They also support PERA's compliance with all local laws and regulations, which may include mandates regarding energy efficiency and other measures aimed at managing climate-related risks and opportunities in Colorado.

- i For more information on the SASB Standards please visit sasb.org/standards/. PERA's management of the Total Fund falls under the Asset Management and Custody Activities industry within the Sustainable Industry Classification System (SICS®), and this report references SASB Standards Version 2021-12. For more information on the TCFD Recommendations please visit fsb-tcdf.org/recommendations/.
- ii For more information on the ISSB please visit ifrs.org/groups/international-sustainability-standards-board/.
- iii Colorado PERA is subject to reporting requirements in Colorado Senate Bill 23-016.

DISCLOSURES

LEED®

The United States Green Building Council's LEED® green building program is the preeminent program for the design, construction, maintenance, and operations of high-performance green buildings. Learn more at usgbc.org/LEED.

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1. ENERGY STAR and the ENERGY STAR mark are registered trademarks owned by the United States Environmental Protection Agency.
2. ENERGY STAR products are third-party certified by an EPA-recognized Certification Body.
3. ENERGY STAR certified new homes are verified by independent Home Energy Raters.
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5. ENERGY STAR certified buildings and plants earn a score of 75 or higher on EPA's 1-100 energy performance scale and are verified by a licensed Professional Engineer (PE) or Registered Architect (RA).
6. Products/Homes/Buildings that earn the ENERGY STAR prevent greenhouse gas emissions by meeting strict energy efficiency requirements set by the United States Environmental Protection Agency.

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ENDNOTES

- 1 PERA data as of December 31, 2023, unless otherwise noted. Amounts may not add due to rounding.
- 2 <https://www.copera.org/files/14e327dd2/Statement+of+Investment+Policy.pdf>
- 3 <https://ilpa.org/reporting-template/>
- 4 Costs are calculated as a weighted average of investment management fees and administration fees across all funds offered in the PERA 401(k) Plan. 2011 costs are represented as a percentage of average investments at fair value between January 1, 2011, and September 30, 2011, prior to the inception of the white label fund structure. Costs for 2023 are represented as a percentage of average investments at fair value between January 1, 2021–December 31, 2023.
- 5 The 401(k) Asset-Based Fee of 0.03% is waived through 2024.
- 6 Costs are calculated as a weighted average of investment management fees and administration fees across all funds offered in the PERA 401(k) Plan. 2011 costs are represented as a percentage of average investments at fair value between January 1, 2011, and September 30, 2011, prior to the inception of the white label fund structure. Costs for 2023 are represented as a percentage of average investments at fair value between January 1, 2021–December 31, 2023.
- 7 Kuh, Thomas; Shepley, Andre; Bala, Greg; and Flowers, Michael. TruValue Labs and FactSet. January 17, 2020. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3521035
- 8 <https://architecture2030.org/why-the-built-environment/>
- 9 <https://www.epa.gov/indoor-air-quality-iaq/introduction-indoor-air-quality>
- 10 <https://www.usgbc.org/leed>
- 11 <https://www.unwater.org/water-facts/scarcity/>
- 12 PERA's proxy statistics throughout this report are for proposals voted For, Against, or Abstain for corporate meetings held 1/1/23-12/31/23, based on data from Glass Lewis and Colorado PERA, unless otherwise noted.
- 13 <https://www.copera.org/files/8f7afaef0/Proxy+Voting+Policy.pdf>
- 14 Dyck, I. J. Alexander and Morse, Adair and Zingales, Luigi; How Pervasive is Corporate Fraud? (February 22, 2013); Rotman School of Management Working Paper No. 2222608: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2222608#:~:text=We%20estimate%20that%20on%20average%2011%25%20of%20large,value%20each%20year%2C%20equal%20to%20%24744bn%20in%202020.
- 15 <https://www.sec.gov/news/public-statement/lee-climate-change-disclosures>
- 16 <https://www.sec.gov/comments/climate-disclosure/cll12-8911390-244313.pdf>
- 17 <https://www.sec.gov/files/rules/proposed/2022/33-11061.pdf>
- 18 <https://www.sec.gov/comments/s7-10-22/s71022-20132550-303091.pdf>
- 19 <https://www.sec.gov/files/rules/final/2024/33-11275.pdf>
- 20 <https://www.sec.gov/files/rules/other/2024/33-11280.pdf>
- 21 Inception of Policy Benchmark (2/1/2004). Note: all figures beyond one year are cumulative and annualized returns.
- 22 Giese, Guido and Lee, Linda-Eling. "Weighing the Evidence: ESG and Equity Returns." (April 2019): <https://www.msci.com/www/research-paper/weighing-the-evidence-esg-and/01315636760>.
- 23 See for example:
 - » The Demanding World of Sustainable Investing: <http://www.morganstanley.com/ideas/sustainable-investing-asset-managers>.
 - » Investing for a Sustainable Future: <https://sloanreview.mit.edu/projects/investing-for-a-sustainable-future>.
- 24 <https://www.ussif.org//Files/Trends/2022/Institutional%20Investors%202022.pdf>
- 25 <https://www.ussif.org//Files/Trends/2022/Institutional%20Investors%202022.pdf>
- 26 "Kok, Nils and Devine, Avis, "Green Certification and Building Performance: Implications for Tangibles and Intangibles," (September 015), Journal of Portfolio Management.
- 27 <https://www.copera.org/files/2a25ea6a8/divestment.pdf>
- 28 The 401(k) Asset-Based fee of 0.03% is waived through 2024, reducing the cost to 0.18% for participants in the 401(k) Plan.
- 29 <https://www.sec.gov/files/rules/interp/2010/33-9106.pdf>

COMMONLY USED ACRONYMS

AGM: Annual General Meeting

CAPs: Capital Accumulation Plans (Collectively PERA's 401(k) Plan, 457 Deferred Compensation Plan, and Defined Contribution Plan)

DB: Defined Benefit

DC: Defined Contribution

ESG: Environmental, Social, and Governance

ILPA: Institutional Limited Partner Association

IFRS: International Financial Reporting Standards

ISS: Institutional Shareholder Services

ISSB: International Sustainability Standards Board

LEED: Leadership in Energy and Environmental Design

MSCI: MSCI ESG Research, LLC

SASB: Sustainability Accounting Standards Board (formerly known as; now part of the ISSB)

SEC: U.S. Securities and Exchange Commission

TCFD: Taskforce on Climate-related Financial Disclosures (formerly known as; now part of the ISSB).



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