




MainePERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

2021 EDITION

Highlighting how sustainability factors
influence investment decisions





MainePERS . . . considers material environmental, social and governance (ESG) risks and value creation opportunities for inclusion in our due diligence and ongoing monitoring of investments subject to our fiduciary duties, constitutional requirements and in accordance with local laws and regulations.

MAINEPERS ENVIRONMENTAL, SOCIAL AND GOVERNANCE POLICY.
ADOPTED ON JUNE 8, 2015.



CHIEF EXECUTIVE OFFICER
Dr. Rebecca M. Wyke

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January 1, 2022

MainePERS is pleased to present you with our 2021 Environmental, Social and Governance (ESG) Report in accordance with the requirements of 5 M.R.S.A. §1957 §§ 5.

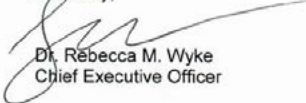
Our ESG policy, adopted in 2015, considers material environmental, social and governance risks and value creation opportunities for inclusion in our due diligence and ongoing monitoring of investments subject to our fiduciary duties, constitutional requirements and in accordance with local laws and regulations.

At MainePERS, we understand our primary duty is to serve as responsible fiduciaries to our members. Our constitutional mandate requires *“all of the assets and proceeds or income therefrom, of the Maine State Retirement System or any successor system and all contributions and payments made to the system to provide retirement and related benefits shall be held, invested or distributed as in trust for the exclusive purpose of providing for such benefits and shall not be encumbered for, or diverted to, other purposes.”* We are proud that Maine is one of the few states that protect pension funding in our state constitution.

Since 1942, the Maine Public Employees Retirement System (MainePERS) has helped public employees prepare for retirement. The System’s contributing members include teachers, state, county, and municipal employees, legislators, judges, and those who work for other public entities. In addition to our active members, many public sector retirees and their beneficiaries receive monthly benefits from retirement plans offered by MainePERS. The System also administers Disability Retirement, Group Life Insurance, and MaineSTART, a tax-deferred retirement savings program. Administration of these programs includes financial administration, investment administration, recordkeeping of members’ work and compensation data, and administration of retirement-related services provided to members, employers and retirees.

Additional information about MainePERS may be found on our website at www.mainebers.org.

Sincerely,



Dr. Rebecca M. Wyke
Chief Executive Officer

www.mainebers.org

LOCATION

139 Capitol Street, Augusta, ME 04332

LOCAL

207-512-3100

FAX

207-512-3101

MAILING ADDRESS

P.O. Box 349, Augusta, ME 04332-0349

TOLL-FREE

1-800-451-9800

MAINE RELAY

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RISKS AND OPPORTUNITIES

“There is now broad recognition that ESG factors are fully part of governance and of equal weight in evaluating the value and the risk of portfolio companies.”

—Stephen Davis

ICGN Founder and Associate Director of Corporate Governance and Institutional Investors Programs at Harvard Law School



In implementing the Board of Trustees’ ESG policy, the MainePERS Investment Team has developed a thoughtful process to monitor the level of ESG risk factors in the MainePERS investment portfolio. Before making any new investment, MainePERS completes a robust due diligence process considering a broad range of

factors, including ESG. Such factors include the extent to which financially attractive investments have positive social or environmental impacts, the ability of our investment partners to work constructively with deal stakeholders and to be good community members themselves; and the degree of transparency an investment partner provides.

MainePERS recognizes the strong correlation between *good governance* and investment performance and therefore considers it an important consideration in the due diligence process.

...

MainePERS considers investment manager environmental partnerships and affiliations during the due diligence process.

...

MainePERS carefully examines how current and potential partners address diversity, how they incorporate ESG training within their organization and in their portfolio companies.

...

MainePERS takes a holistic view when evaluating investments. No single factor is necessarily a definitive reason to invest or not invest in a strategy, rather all factors are important inputs into the overall decision.

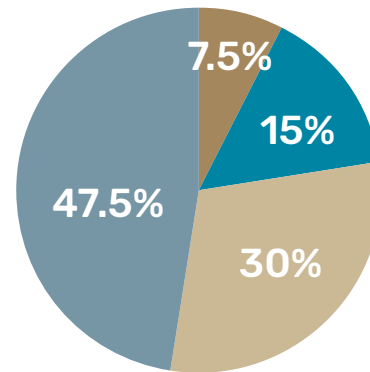


PUBLIC MARKET INVESTMENTS: ENGAGEMENT AND PROXY VOTING

Public Market Investments

MainePERS takes a passive approach to investing in public equity markets. We “index” our public equity investments and simply hold the entire stock market. This approach provides broad market exposure at extremely low cost and with little portfolio turnover. This approach means that we do not evaluate the merits, ESG or otherwise, of any individual public company in order to make buy or sell decisions. However, as a shareholder MainePERS is still able to actively engage with company management, particularly through the proxy voting process.

MainePERS Asset Allocation
(as of 6/30/2021)



- US Government and Investment Grade Bonds
- Public Equity
- Private Market Investments
- Risk Diversifiers

PUBLIC MARKET INVESTMENTS: ENGAGEMENT AND PROXY VOTING, CONTINUED

ACTIVE OWNERSHIP

“Active ownership refers to the practice of entering into a dialogue with companies on ESG issues and exercising both ownership rights and voice to effect change. Active ownership is in sharp contrast to the idea that investors should vote with their feet—that is, simply sell off the investments with questionable practices.”

CFA Institute, Environmental, Social and Governance Issues in Investing: A Guide for Investment Professionals.

BOARD GOVERNANCE

In 2021 MainePERS and other institutional investors supported activist investor Engine No. 1 in its successful attempt to replace several members of ExxonMobil’s Board of Directors with nominees judged more able to guide the company through the ongoing transition in the global energy markets.

MainePERS owns both public and private equity investments, and recognizes that we cannot ensure any particular investment’s commitment to ESG considerations, especially in cases where MainePERS is a minority owner and has limited ability to influence the organization. In the case of investments in large publicly traded securities, the MainePERS Investment Team selectively engages companies in which we currently invest where engagement can have meaningful impact relevant to ESG-related issues. Example of this type of engagement activity include letters sent in 2021 to Duke Energy, General Electric, and Dominion Energy concerning Board Chair Independence.

We view ourselves as an “active owner” of the companies in which we invest and will directly engage with company management as appropriate. MainePERS views such engagement as an important and effective means of managing long term risks. Additionally, as opportunities arise, MainePERS works collaboratively with other investors and ESG proponents to broaden our engagement reach and impact.

The MainePERS Investment Team believes that being active owners and making our voice heard by voting proxies of publicly traded companies has economic value and can serve to reduce portfolio risk. Proxies are the vehicle by which boards of directors are elected, bylaws are changed, and other actions in which owners are involved are accomplished. In conjunction with our proxy agent, Glass Lewis, MainePERS votes on management and shareholder proxy proposals in a manner consistent with our Environmental, Social, and Governance Policy as articulated in the MainePERS Engagement Policy (2.7). During the most recent fiscal year, MainePERS voted in favor of ESG-related shareholder proposals in a majority of cases.

MainePERS casts ballots on
over 10,000 proxy items every year.





PRIVATE MARKET INVESTMENTS

ESG CONSIDERATIONS

While ESG considerations are never an exclusive reason to pursue an investment, in many cases attractive investments are also attractive from an ESG perspective. An example is an Infrastructure investment which involved conversion of existing coal boilers to modern natural gas boilers, resulting in a 50% reduction in CO2 emissions.

PANDEMIC RESPONSE

The COVID-19 pandemic has significantly impacted global supply chains, and one MainePERS Infrastructure investment utilized its position in the cold storage sector to provide 100 million meals to families in need, a goal that was met in 6 months.

MainePERS invests in a number of private “alternative” asset classes, such as Natural Resources, Private Equity, Infrastructure, and Real Estate. Prior to investing with any particular private asset manager, the MainePERS Investment Team completes a thorough due diligence process. This process is designed to assist the Team in the identification and monitoring of risk factors, including the evaluation of a number of ESG-specific items, and a review of a prospective manager’s internal ESG policy. Governance and labor practices are crucial concerns in our due diligence process. Appropriate governance is a prerequisite for any MainePERS investment. We also study labor practices of both the fund and the companies they manage. The due diligence process provides our Investment Team with a road map of strengths and weaknesses that allows us to make an informed investment recommendation to the Board of Trustees. Our holistic approach means we rarely make an investment decision based on a single issue (ESG-related or otherwise). Bringing all these factors into consideration, MainePERS looks to partner with asset managers that operate in an environmentally responsible manner, foster a fair and meritocratic work environment, and provide responsible corporate citizenship. Our Investment Team also believes that conducting due diligence into the ESG practices of potential managers is itself an important act, and in many cases serves to alert managers to a need to improve their ESG practices and disclosures.

MainePERS invests in firms that demonstrate wise-use principles and seek to ensure observance of ESG best practices.

PRIVATE MARKET INVESTMENTS, CONTINUED

ENERGY EFFICIENCY

A number of MainePERS investments can complement the growing use of renewable energy sources by improving efficiency. A recent private market investment that MainePERS was involved in created smart glass that reduces a building's energy consumption by 10-20% in different climates while also improving comfort inside.

WATER SUPPLY

MainePERS is an investor in a reverse-osmosis water treatment company that has created a water tap that eliminates a family's need for 500 plastic bottles per year.

Energy Transition

Energy storage is becoming a critical component required for a successful transition to a lower carbon energy future. Efficient large scale storage is needed to enable renewable energy produced when demand is low to be used during periods of higher demand. For example, excess solar energy produced during daylight hours must be stored until demand peaks in the evening. Similarly, since wind energy production typically peaks after midnight when energy demands are low, excess energy must be stored until needed. An additional source of battery demand will stem from the transition away from internal combustion engines in favor of electric vehicles (EV), which by itself will require a massive increase in battery production.

MainePERS has invested in a number of companies seeking to enable this transition. Examples include Helion Energy, which is seeking to develop the first commercial fusion power plant to provide low-cost, zero-carbon electricity, and Form Energy, which aims to develop a long-duration utility-scale energy storage system using technology that is more cost effective than today's lithium ion batteries.

Fossil Fuels

While MainePERS has exposure to fossil fuels-based energy producers in both its public and private market investments, these investments have come to represent a smaller proportion of our overall investments over time for two reasons. First, because of our passive index-based approach to investing in public equities, the value of our public holdings of fossil fuel stocks generally mirrors the role these companies play in the broader economy. As this role shrinks, these public companies naturally become a smaller part of the MainePERS portfolio. The second reason resides in our private market investments and is related to market opportunities. MainePERS is an investor in a number of actively managed private market funds that allow the managers to invest wherever they find the most attractive opportunities. Our experience over the last several years is that these opportunities have generally been found in renewables and industries related to clean power, rather than in fossil fuel-related industries.

PRIVATE MARKET INVESTMENTS, CONTINUED

Mining

Although mining activities can sometimes be controversial, there is no question that implementing best management practices in conjunction with constantly improving mining practices can minimize environmental impacts. MainePERS invests in firms that demonstrate wise-use principles and seek to ensure observance of ESG best practices. For example, a recent MainePERS mining investment achieved Net Zero Carbon Neutral Status, the first mining site in Europe to do so.

Campus Utility

MainePERS private market Infrastructure portfolio includes campus utility investments, including the University of Iowa Utility System, which aims to be a coal-free campus by 2025. This particular project has won several awards, including the 2020 Infrastructure Investor Energy Deal of the Year for North America.

Water

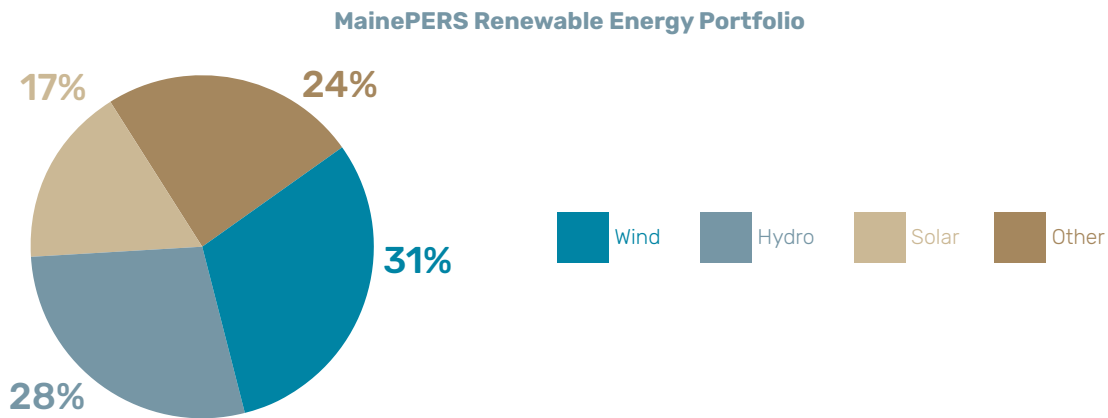
MainePERS understands that many of the sustainability issues facing society revolve around use of water. Critical water-related risks exist for large populations in both developed and undeveloped countries, and MainePERS supports partners that are helping develop solutions to these problems. Among these problems is water quality. One solution, among many others, that MainePERS has supported in this arena are water treatment solutions.

Renewable Energy

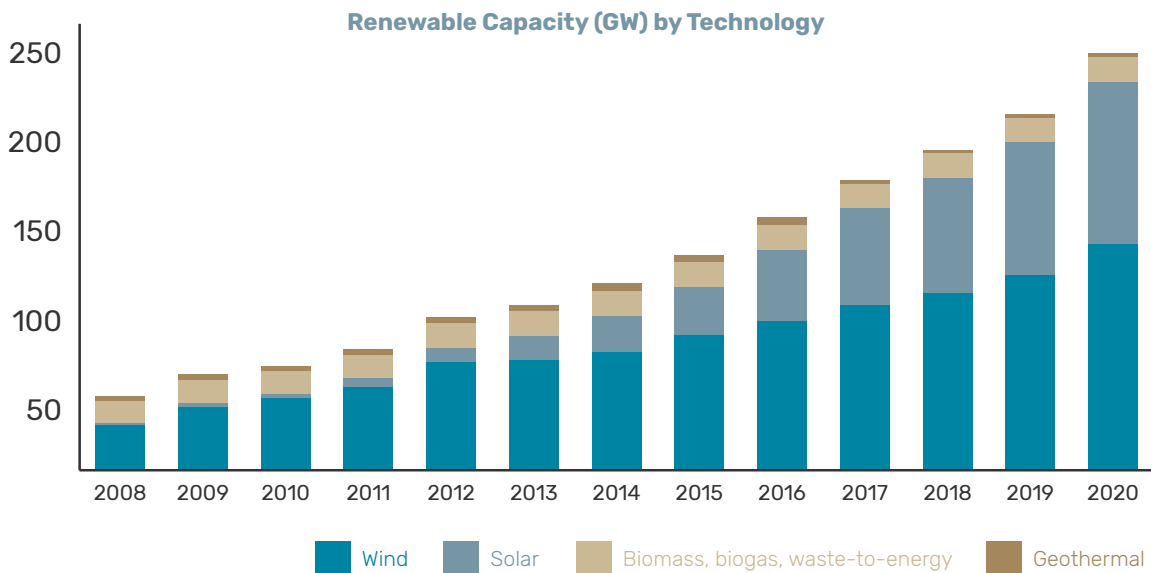
MainePERS invests in Renewable Energy across its portfolio. Recent investments include hydro, solar, biomass, geothermal and wind projects around the world. MainePERS has invested \$323 million in renewables through private market investments. This includes three direct co-investments totaling \$47 million in renewable energy generation projects.



PRIVATE MARKET INVESTMENTS, CONTINUED



The largest growth in private MainePERS renewable energy investments since 2012 has been in wind energy, followed by solar. This is consistent with US trends for installation of new renewable energy generation capacity:





REAL ESTATE

ESG IN ACTION

MainePERS is an investor in New York City's Stuyvesant Town / Peter Cooper Village. This is the first New York private multi-family residential community to be LEED Platinum certified. Blackstone, our investment partner, has focused on tenant satisfaction and other sustainability measures resulting in an 85% reduction in wait times on maintenance requests and 50 tons of recyclables and 5 tons of compost safely handled each week.

As part of the due diligence and monitoring process for real estate investment partners who buy, hold, and sell commercial and residential real estate, MainePERS examines the following ESG factors:

Environmental

These factors include the degree to which building energy, water, and waste practices support renewable energy innovation and lead to energy conservation and expense savings. Additionally, many of these properties achieve “LEED”, “ENERGY STAR”, or such measures of green building practices, and some have earned recognition as major achievements. Many of MainePERS’ real estate partners have begun to review and assess the resilience of properties to climate risks.

Social Impact

These factors include the degree to which regular engagement with stakeholders such as employees, tenants, and the community result in strong stakeholder relations.

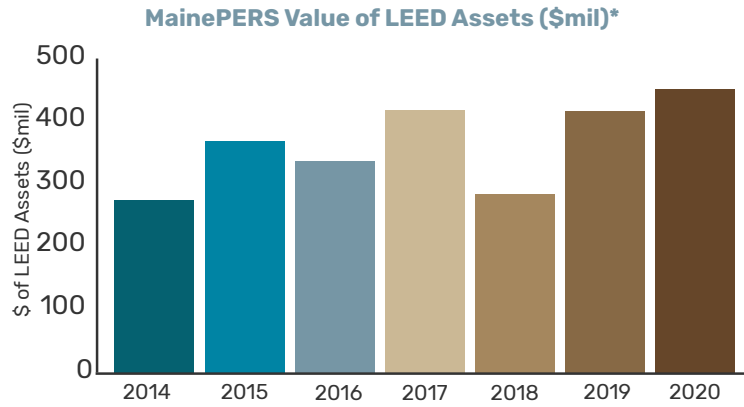
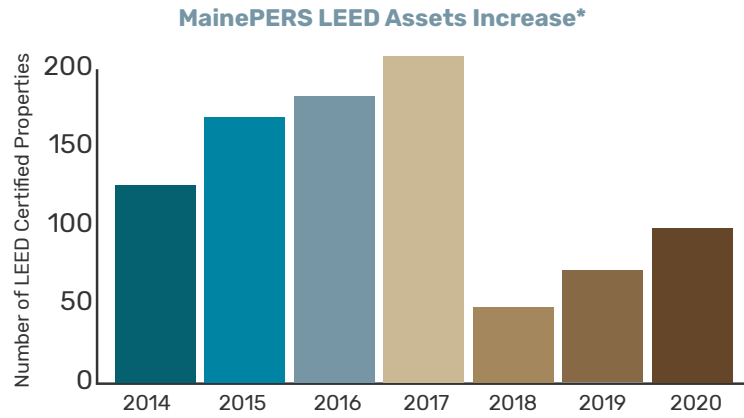
Governance

These factors include the degree to which company management reflects good governance principles including transparency in disclosing and managing potential conflicts of interest and accountability to investors and stakeholders.

MainePERS tracks participation in the Global Real Estate Sustainability Board (GRESB), a reporting framework for ESG performance. Currently, all five of MainePERS’ open-end real estate equity partners are reporting members of GRESB.

REAL ESTATE, CONTINUED

* In 2018, MainePERS reallocated capital in the Real Estate portfolio, and consolidated the number of managers used. This resulted in a drop in the number of individual properties held, including properties with LEED certification.



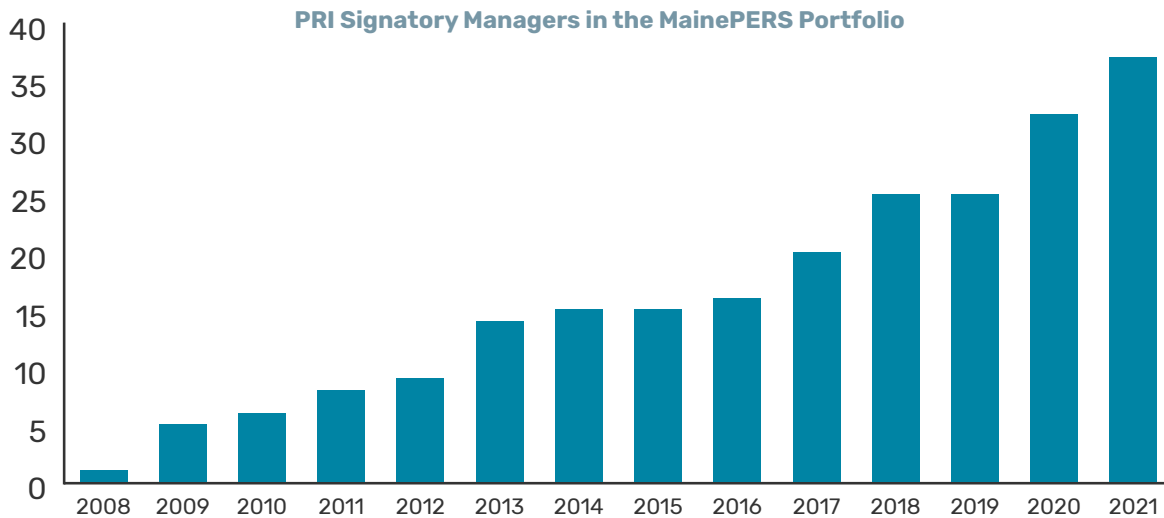
ESG METRICS

PRI | Principles for Responsible Investment

PRI is a UN-supported organization that works with investors and asset managers around the world. PRI signatories commit to incorporating ESG issues into investment analysis and asset ownership and to appropriate levels of ESG-related disclosures.

As shown below, the number of managers in the MainePERS portfolio that have signed on to these Principles for Responsible Investment has grown steadily over time.

As of fiscal year end 37 managers, with investment responsibility for over 70% of MainePERS assets, were PRI signatories.



ESG METRICS, CONTINUED

Environmental Metrics

The development and reporting of ESG-related metrics remains nascent, and such metrics are primarily available only for publicly listed companies. In this section we provide environmental metrics for the public equity portion of MainePERS' portfolio. This reporting will be expanded in future years as these metrics become available for additional asset classes.

As discussed earlier, MainePERS employs an indexing approach to its public equity investments. This approach allows MainePERS to obtain broad exposure to global stock markets at very low cost. By "buying the market," MainePERS is invested in the shares of over 5,000 companies spread across 50 developed and emerging markets. As a result, the charac-

teristics of MainePERS' equity holdings mirror those of the benchmarks that the portfolio tracks. For example, the US Equity portion of the portfolio is indexed to the Russell 3000 Index. This means that the features and characteristics of MainePERS' US equity holdings match those of the index. For example, if aggregate price-to-earnings (P/E) ratio of the index equals 23, then the US portion of MainePERS' equity holdings will also have a P/E ratio of 23. This correspondence also holds for other features, including ESG-related metrics.

The below table contains environmental metrics for those global equity benchmarks to which MainePERS' equity portfolio is indexed. These metrics are based on information found at Fossil Free Fund's website.

	Russell 3000 Index	MSCI All Country World Index ex U.S.
Total CO2 Emissions / \$1m invested ¹	80	210
Emissions Intensity ²	140	240

(1) Annual tons of Scope 1 and Scope 2 CO2 equivalent emissions per \$1m invested value.

(2) Annual tons of Scope 1 and Scope 2 CO2 equivalent emissions per \$1m revenue.



ESG METRICS, CONTINUED

As of 6/30/21, MainePERS held \$3.2 billion of U.S. equities and \$2.3 billion of non-U.S. equities, which represents approximately 0.007% of the total value of these indexes. Applying these dollar amounts to the benchmark metrics contained on the prior page allows us to estimate the total CO2 equivalent emissions (Scope 1 and 2) related to MainePERS' public

equity investments as 739,000 metric tons. MainePERS' portfolio metrics, both environmental and otherwise, should be viewed as being in line with global benchmarks, since we are invested in benchmarks that effectively comprise all companies listed in global markets other than "frontier" markets.





ESG POLICY

Board Responsibilities – Investments and Administration

2.6 – Environmental, Social and Governance Policy

Date Adopted. 1/8/15

Date Amended: May 11, 2017; November 18, 2021

Policy

The MainePERS Board of Trustees considers material environmental, social, and governance (ESG) risks and value creation opportunities critical for inclusion in its due diligence and ongoing monitoring of investments subject to its fiduciary duties, constitutional requirements and in accordance with laws and regulations. The MainePERS Board of Trustees directs the Chief Executive Officer and MainePERS Investment Team to incorporate ESG considerations into all investments considered or made by MainePERS following the adoption date of this policy, and to examine opportunities for ESG integration in existing investments.

MainePERS acknowledges that it will not always be feasible to ensure a particular investment's integration of ESG considerations, especially in cases where MainePERS is a minority owner and has limited ability to influence the organization. In these cases, the MainePERS Investment Team shall engage organizations with which it currently invests to strongly consider relevant ESG-related issues. In addition, MainePERS will consider its ability to influence ESG considerations when weighing prospective investments.

The MainePERS Board of Trustees shall annually review implementation of this policy and update or revise this policy as appropriate.

This policy shall also apply to investment consultants hired by MainePERS to provide guidance on investment due diligence matters.

Statutory/Legal Provisions

- Me. Const. art. IX § 18
- 5 M.R.S. §§ 1957, 17102 and 17103

ESG POLICY, CONTINUED

Roles and Responsibilities

The Chief Executive Officer shall ensure that the MainePERS Investment Team integrates this policy into the investment due diligence process. The MainePERS Chief Investment Officer and Deputy Chief Investment Officer shall ensure that material ESG issues are continually reviewed, revised and integrated by the investment team in the due diligence process. A report describing the implementation of this policy, including recommendations for updates or revisions to this policy, will be provided to the Trustees at the December Board meeting each year. The report must also include commonly available environmental performance metrics on the environmental effects of MainePERS' investments.

ESG Due Diligence

MainePERS believes that organizations that understand the benefit of and openly practice sound environmental, social and governance business practices create strong business models and investment opportunities. Consistent with its fiduciary duties, constitutional requirements and in accordance with laws and regulations, MainePERS shall:

1. Maintain awareness of new and existing key ESG considerations and their impact on investment valuation, and update the due diligence process used to identify material ESG issues accordingly.
2. Examine and understand each potential or existing investment's material ESG risk exposure and use this knowledge when evaluating potential investments and during the duration of investment ownership.
3. Be accessible to, and engage with, relevant stakeholders.
4. Encourage and support the adoption and implementation of sound environmental, social, and governance practices by companies and managers in which MainePERS invests.
5. Encourage governance structures that provide appropriate levels of oversight in the areas of audit, risk management, and potential conflicts of interest.
6. Encourage MainePERS investments, and MainePERS business partners to commit to aligning their operations and strategies with the United Nations Global Compact's principles regarding human rights, labor, environment, and anti-corruption.
7. Provide timely and transparent information accessible by stakeholders on the matters addressed in this policy.



ENGAGEMENT POLICY

2.7 – Engagement

Date Adopted: February 11, 2016

Date Amended: October 11, 2018

Policy

MainePERS is the fiduciary for funds it is assigned to manage. MainePERS shall be a good steward for the funds entrusted to it, managing and investing these funds as a “prudent investor” in accordance with the “exclusive benefit rule” and the laws and Constitution of the State of Maine. MainePERS shall also promote the long-term success of companies with which the System invests through engagement activities.

Statutory/Legal Provisions

- Me. Const. art. IX, § 18.
- 5 M.R.S. §§ 17102, 17103, 17435; 18-B M.R.S. § 801, *et seq.* (Maine Uniform Trust Code); 18-B M.R.S. § 901, *et seq.* (Maine Uniform Prudent Investor Act).
- 5 M.R.S. §§ 17153(4).
- Restatement (Third) of Trusts § 78(1) (2007) (the “sole interest rule”).
- The Employee Retirement Income Security Act (“ERISA”), codified at 29 U.S.C. § 1002, *et seq.*, provides a description of the standard of care that applies to trustees of private sector retirement plans. Although the System as a public retirement plan is not specifically governed by the fiduciary duty standard set forth in ERISA, courts will often consider the standard set forth in ERISA when addressing public pension plan issues. Under ERISA, a fiduciary must act with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person (expert) acting in a like capacity would act. This statutory standard is derived from the common law of trusts, which is applicable in the State of Maine.

ENGAGEMENT POLICY, CONTINUED

Engagement

Engagement is encouraging long-term success and growth of publicly traded companies with whom MainePERS invests through activities such as:

- Direct engagement
- Participating in or sponsoring shareholder litigation
- Proxy voting

DIRECT ENGAGEMENT

MainePERS will maintain a direct engagement effort consistent with the need for and resources available to encourage the publicly traded companies in its portfolio to achieve long term growth and success, balancing the long term focus of good stewardship with the short term challenges the company faces. Direct engagement opportunities may be based on continuous monitoring of its investments including investment analysis, trade publications, trade organizations, or coordination with other institutional investors.

Direct engagement includes written and oral communication to companies, including attending shareholder meetings and sponsoring shareholder resolutions in unusual circumstances.

SHAREHOLDER LITIGATION

MainePERS will participate in shareholder litigation only to the extent that participation is likely to benefit MainePERS members as pension beneficiaries. MainePERS generally will not assume the role of lead plaintiff in a securities class action unless no other investor with interests similar to MainePERS and sufficient resources to support the litigation is willing to serve as lead plaintiff and the System otherwise will lose the benefit of the litigation to members.

PROXY VOTING

MainePERS will vote its proxies in the best interests of its members as pension beneficiaries. This will generally mean focusing on good stewardship by the companies with which MainePERS invests, including:

- Voting to optimize each company's value to shareholders, balancing the long-term focus of good stewardship with the short-term challenges the company faces. Good stewardship includes establishment of effective governance and management practices, responsibility to employee and customer welfare, and responsibility to the environment;
- When there is a conflict between long- and short-term interests, voting shall be in favor of proposals that maximize shareholder control consistent with effective business operations of the company;
- Refraining from voting to further the interests of any group other than the best interests of MainePERS members as pension beneficiaries.

ENGAGEMENT POLICY, CONTINUED

The Executive Director and Chief Investment Officer shall implement this direction by engaging a proxy voting agent to vote shares of stock owned by MainePERS. The MainePERS investment team shall create, maintain, and update general guidance in the following areas that the proxy voting agent can use to map to proxy votes available to MainePERS:

- Management resolutions
 - Elections of officers
 - Ratification of auditors
 - Governance structure and shareholder rights
 - Compensation
- Shareholder proposals
 - Environment
 - Social matters
 - Governance
 - Compensation
- Mergers and proxy contests

The MainePERS Investment team shall work with the proxy voting agent to determine MainePERS' position on proxies not directly covered by the implementation guidance. The Investment team shall monitor the proxy voting agent's implementation of the MainePERS guidance and report semi-annually to the Board of Trustees. The Board may meet with the proxy voting agent from time to time to discuss MainePERS' votes.

CONCLUSION

For further information please contact
esg@mainepers.org

