GREEN INITIATIVE TASK FORCE

2013 Annual Report
period ending June 30, 2013

HIGHLIGHTING

CalSTRS environmental-themed investments and environmental risk management efforts

CALSTRS®
HOW WILL YOU SPEND YOUR FUTURE?

MISSION

To manage the risks and capture the opportunities associated with global sustainability issues by identifying environmentally focused strategies intended to enhance the risk-adjusted returns of the CalSTRS Investment Portfolio.

—CALSTRS INVESTMENTS

HOW WILL YOU SPEND YOUR FUTURE?

California State Teachers'
Retirement System
Christopher J. Ailman
100 Waterfront Place, MS-04
West Sacramento, CA 95605-2807

December 2, 2013

Dear Reader:

I am pleased to present the seventh annual report from the CalSTRS Green Initiative Task Force, or "The Green Team," detailing the Investments branch activities surrounding environmental risk management and opportunity capture. This report reflects CalSTRS' recognition that environmental issues affect the performance of the investment portfolio across companies, sectors, regions and asset classes. The increasing importance of environmental considerations in investing has rarely been more evident than it is today. We are routinely being made aware of environmental-related events that impact the value of corporations, property and infrastructure.

Severe weather events, such as 2012's Hurricane Sandy, which caused billions of dollars in damage throughout New York and New Jersey, regularly disrupt and severely impact global society. Damage losses from the ongoing drought in the Midwestern United States are just beginning to be estimated. While the agricultural sector is certainly being hit hard, losses are also being seen in other sectors through general business interruptions. According to Munich Re, in 2012, 905 natural catastrophes worldwide resulted in 9,600 fatalities and overall losses of $170 billion. Institutional investors cannot ignore the importance of working to minimize the frequency and impact of these environmental-related events. There are significant financial, legal and reputational risks involved and, as fiduciaries, it is an investor's responsibility to work to mitigate these risks.

Society's efforts to manage environmental risks can also present investment opportunities. Efforts to reduce carbon emissions and provide relief to water-stressed regions present opportunities to investors positioned to analyze and act on them. Perhaps most notable are the investment opportunities surrounding clean energy production and transmission, and technologies that support resource efficiency. A March 2013 report from the Climate Policy Initiative, titled *The Challenge of Institutional Investment in Renewable Energy*, estimated that institutional investors had the combined potential to invest $689 billion in renewable energy through corporate vehicles and $257 billion in renewable energy projects.

Since our last Green Team report, released in fall 2012, we have grown our portfolio of Green Investments through additional commitments in our Inflation Sensitive asset group. Inflation Sensitive is largely focused on infrastructure investments and we have taken advantage of opportunities in clean energy production and transmission investments, as well as several energy efficient facilities.

From a risk management perspective, since last year CalSTRS has continued to actively engage market participants on improving environmental risk management and disclosure. My staff has focused on a variety of issues, including energy efficiency, hydraulic fracturing, fossil fuel reserve valuation, and carbon emissions management.

I thank you for taking the time to consider this report, and I encourage you to join us and our collaborative partners as we promote environmental risk management and investment awareness throughout the global financial markets.

Sincerely,

Christopher J. Ailman
Chief Investment Officer
California State Teachers' Retirement System

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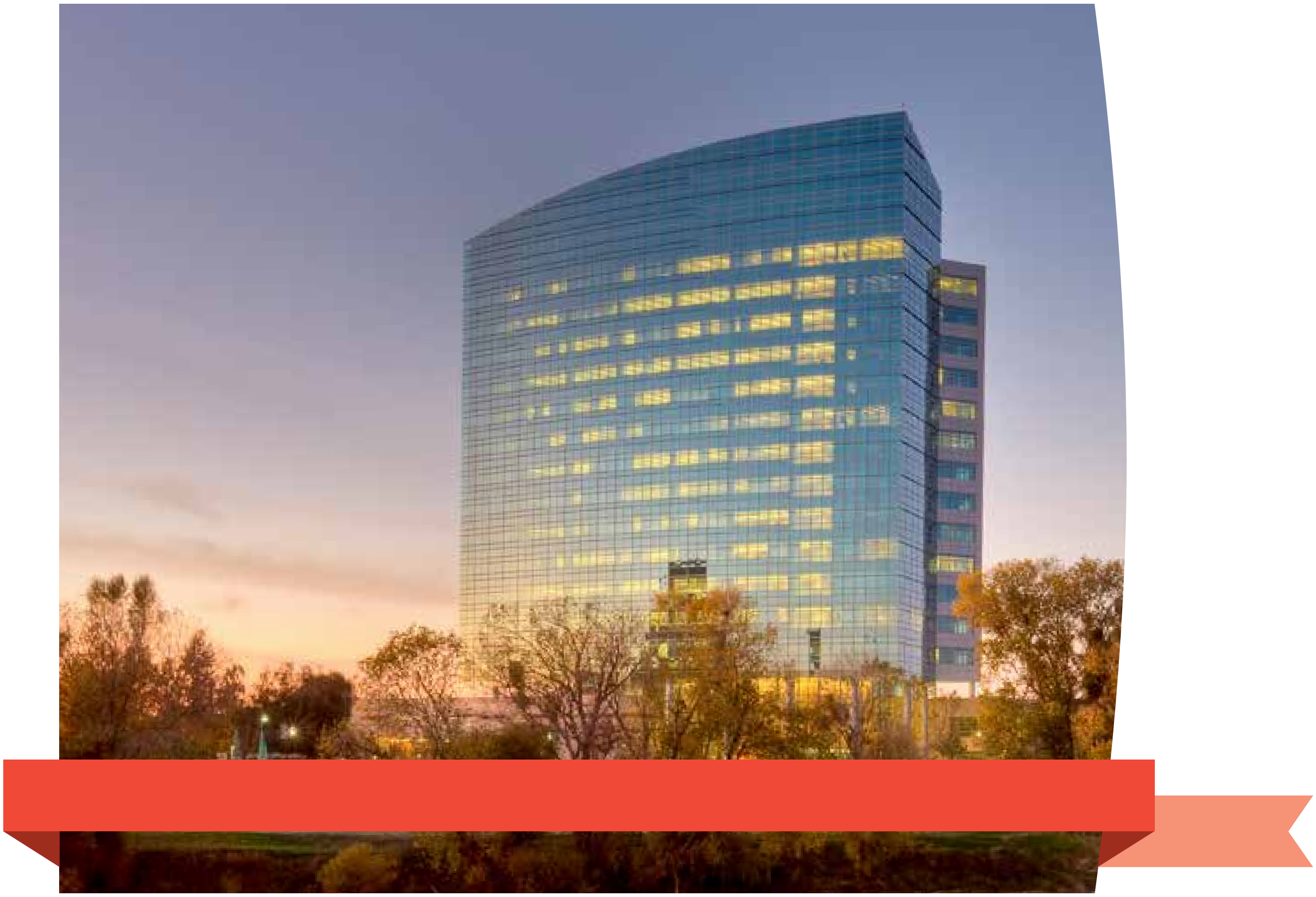
ENVIRONMENTAL INTEGRATION

HISTORY

In 2004, at the direction of the Teachers' Retirement Board, the CalSTRS Environmental Program was formalized through the development of a four-pronged plan that included structuring an environmentally focused equity program, targeting private investment in clean technologies, auditing the real estate portfolio efficiency to increase long-term value, and demanding environmental accountability and disclosure from portfolio investments. One of the program's early creations was a Clean Technology Advisory Board, which led to an initial $250 million commitment to clean technology.

In 2005 the Teachers' Retirement Board voted to explore establishing a program that would consider sustainable investments in public equity securities. With the support of CalSTRS' general consultant, Pension Consulting Alliance, CalSTRS staff and the board determined that double bottom line expectations of financial and environmental outperformance were achievable in the public equity markets. It was then decided that CalSTRS would begin searching for external public equity managers who incorporated environmental, social and governance considerations in their investment selection analysis. The subsequent manager selection process yielded commitments to four sustainable managers totaling $225 million.

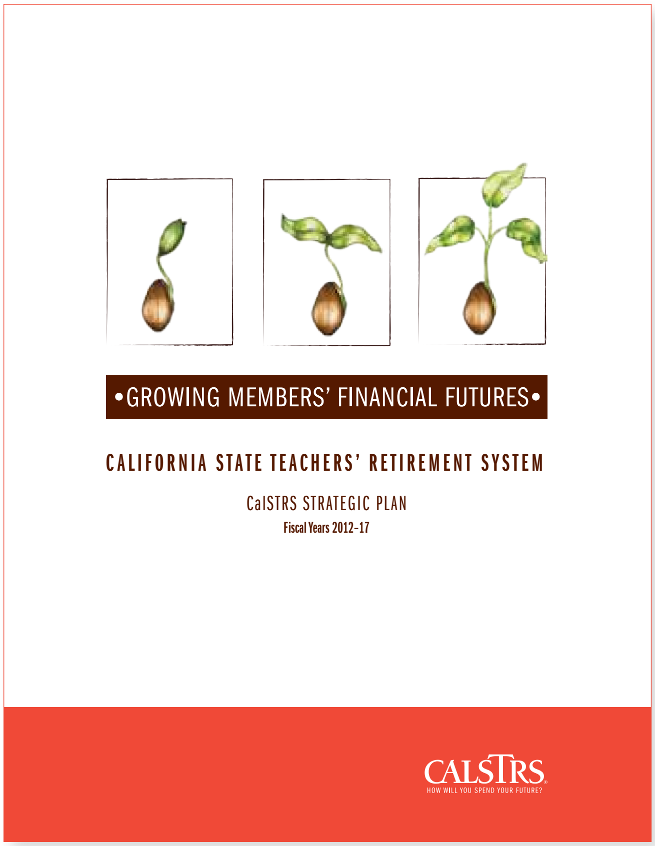


Soon after authorizing a sustainable equity manager portfolio, the Teachers' Retirement Board determined that staff should actively engage equity market participants on environmental awareness. In 2006 the Corporate Governance unit was charged with making climate risk management one of its principal focuses. Staff later recognized that many other environmental issues presented risks to the portfolio and that engagements with financial market participants on these issues were warranted.

In 2008 CalSTRS became one of the first North American pension funds to formally integrate environmental, social and governance considerations into its investment policies when it adopted the Investment Policy for Mitigating ESG Risks. Attachment A to the CalSTRS ESG Policy is the 21 Risk Factors which identify ESG risks that are considered by staff and external managers as part of the due diligence process associated with investment decisions. Attachment B to the CalSTRS ESG Policy is the Statement of Shareowner ESG Responsibility. This document supplements the CalSTRS proxy voting guidelines and provides direction on how to evaluate ESG proposals.

In 2008

CalSTRS became one of the first North American pension funds to formally integrate environmental, social and governance considerations into its investment policies.



Continued Commitment

CalSTRS' commitment to environmental integration is evident in the *CalSTRS Strategic Plan for FY 2012–17*, which was adopted by the Teachers' Retirement Board on April 12, 2012, and is effective as of July 1, 2012. This five-year plan contains long-range goals (what CalSTRS wants to achieve), objectives (measurable ways to achieve the defined long-range goals) and initiatives (specific projects, programs, activities or actions to help CalSTRS achieve its objectives).

Goal 2 of the *CalSTRS Strategic Plan* is to responsibly manage risk to the organization. This risk management goal reflects CalSTRS' dedication to creating a fully sustainable organization, one that recognizes the components of sustainability, such as environmental consideration. CalSTRS' way of managing and responding to its internal and external risk environments is evident in each of the goals, objectives and initiatives in this strategic plan. CalSTRS is committed to addressing risks and opportunities, including environmental risks and opportunities, in its approach to corporate sustainability by transforming its business culture and practices.

CalSTRS is recognized as a global leader in corporate sustainability and is formalizing a concerted standard of risk management that extends from the Teachers' Retirement Board to each employee. The objectives and initiatives in Goal 2 of the *CalSTRS Strategic Plan* reveal CalSTRS' commitment to being a strong and agile organization by continuing to expand its knowledge, tools and practices related to its investments, the quality of its audits, and the transformation of its business culture and practices.

CALSTRS STRATEGIC PLAN (FISCAL YEARS 2012–17)

Goal 2
Responsibly manage risk to the organization.
Objective D
Accelerate transformation of CalSTRS to a fully sustainable global organization by integrating environmental, social and governance opportunities into its culture and strategies.
Initiatives
1. Develop an organizational sustainability policy and educate staff. (July 2013–14) 2. Engage stakeholders on sustainability policies and expectations. (July 2013–14) 3. Establish an internal planning and reporting framework using Global Reporting Initiative principles. (July 2013–17) 4. Integrate environmental, social and governance factors into internal and investment operations, and across the entire investment portfolio. (July 2012–17)

Integrating ESG into Investment Processes

As outlined in Goal 2, Objective D, Initiative 4 of the *CalSTRS Strategic Plan*, the CalSTRS Investments branch is working to integrate environmental, social and governance factors into and across the CalSTRS Investment Portfolio. The key activity for fiscal year 2012–13 was educating investment employees on environmental, social and governance risk and return potential.

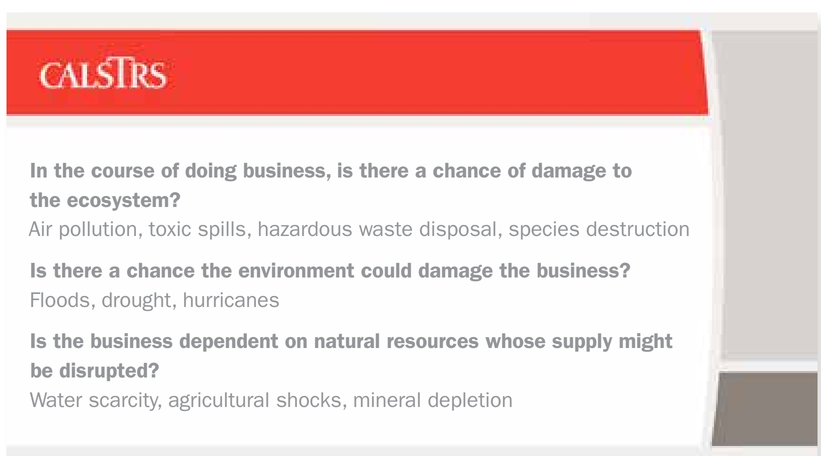
To accomplish the goal of educating staff on ESG issues, Green Team members prepared and presented a series of educational seminars, tailored for each asset class, which focused on various ESG risks and how these risks might impact portfolio returns. The seminars also highlighted potential ESG-related investment opportunities. The seminars were interactive in nature and were intended to not only raise awareness of ESG risks and opportunities but also stimulate discussions among staff members.

From an environmental perspective, staff was asked to consider not only how an investment might impact the environment, but also how the environment might impact the investment. In other words, investments can be sources of pollution and habitat destruction, but they can also be subject to droughts, floods and other extreme weather events. Each of these scenarios presents risk to an investment and can lead to a loss of investment value.

Staff also discussed potential environmental-themed investments, what opportunities people were seeing and how CalSTRS might be able to take advantage of these opportunities. Efficiency initiatives and renewable energy infrastructure investments were the most commonly discussed opportunities, with some discussion on the investment potential surrounding resource management and energy transition support.

The key activity for fiscal year **2012–13** was educating investment employees on environmental, social and governance risk and return potential.

ENVIRONMENTAL RISKS



Environmental Integration Tool

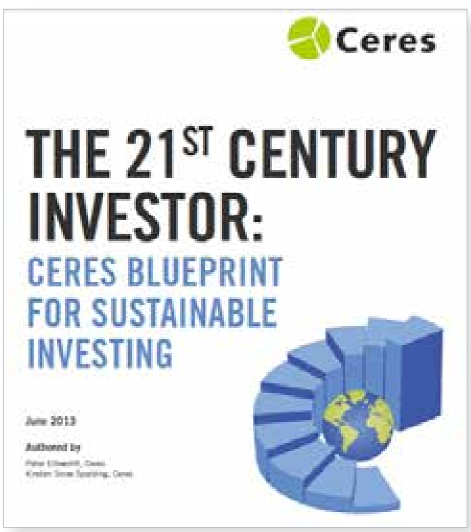
As active members and supporters of Ceres, CalSTRS works on many Ceres projects designed to raise awareness on the need for institutional investors to be managing environmental risk. During fiscal year 2012–13, CalSTRS staff worked collaboratively with Ceres staff and other institutional investors, consultants and money managers to develop a roadmap for institutional investors to follow should they be interested in integrating ESG factors into their investment processes.

This tool, titled *The 21st Century Investor: Ceres Blueprint for Sustainable Investing*, was released in June 2013 and offers 10 key action steps to help investors understand and manage risks posed by such challenges as climate change, energy demand, access to water, resource scarcity, population growth and human rights. It is intended to help investment board members advance processes for enhancing sustainable risk-adjusted returns and prompt asset owners and asset managers to consider their strategies in light of growing environmental and social risks.

CalSTRS supports the *Ceres Blueprint for Sustainable Investing* and believes it will be a useful guide for measuring CalSTRS' progress in ESG integration.

The 21st Century Investor: Ceres Blueprint for Sustainable Investing offers 10 key action steps to help investors understand and manage risks.

CERES BLUEPRINT FOR SUSTAINABLE INVESTING



Step	Action
1	Establish a Commitment to Sustainable Investment Through a Statement of Investment Beliefs
2	Establish Board Level Oversight of Sustainability Policies and Practices
3	Identify Sustainability Issues Material to the Fund
4	Evaluate Asset Allocation for Material Sustainability Risks
5	Select an Investment Strategy and Integrate Sustainability Criteria
6	Require Sustainable Investment Expertise in Manager and Consultant Procurement
7	Evaluate Manager Performance Against Sustainable Investment Expectations
8	Establish Engagement Strategies and Proxy Voting Guidelines
9	Support Policies and Market Initiatives That Promote a Sustainable Global Economy
10	Integrate Sustainable Investment Criteria Across All Asset Classes and All Strategies

RISK MANAGEMENT

As directed by the Teachers' Retirement Board, staff has developed a variety of techniques and tools designed to mitigate the level of environmental risk that the CalSTRS Investment Portfolio faces. As a large, diversified global investor, CalSTRS needs to be mindful that it is exposed to a variety of environmental risks. Carbon emissions regulations in Europe, water scarcity in North America and deforestation in Southeast Asia can all present risks to the CalSTRS Investment Portfolio.

Engaging with those who invest on our behalf is important and CalSTRS works with its external managers on environmental risk mitigation. Direct engagement with portfolio companies is also an important and effective means of managing risk, and CalSTRS is very active in this regard. CalSTRS understands that working collaboratively with other investors is an excellent way to broaden engagement reach and strives to partner with others whenever possible.

Being active owners and voting proxies also helps reduce risk. CalSTRS routinely submits environmental-related shareholder proposals to companies held in its public equity portfolio in an effort to raise their level of environmental risk awareness. Staff also considers and votes all environmental-related proposals in a manner that aligns with our objectives of improving disclosure and mitigating risk.

21 Risk Factors

Attachment A to the CalSTRS Investment Policy for Mitigating ESG Risks is a document known as the 21 Risk Factors. Adopted in 2008, the 21 Risk Factors represent a variety of ESG risks that CalSTRS believes could impact the value of the investment portfolio. The 21 Risk Factors are considered when undergoing due diligence on new investments. They are also part of the continuous diligence process staff undertakes with existing investments and investment managers. CalSTRS external fund managers are regularly queried on how they are factoring the 21 Risk Factors into investment decisions made on behalf of CalSTRS. Often times, these risk factors are embedded or referenced in contracts with external investment partners.

CALSTRS 21 RISK FACTORS

Monetary Transparency	The long-term profitability by whether or not a country or company has free and open monetary and financial data, and its observance of applicable laws.
Data Dissemination	The long-term profitability by whether or not a country is a member of the IMF (or similar organization) and satisfies the conditions for access, integrity and quality for most data categories.
Accounting	The long-term profitability by whether or not the accounting standards are formulated in accordance with International Accounting Standards or the U.S. Generally Accepted Accounting Principles.
Payment System: Central Bank	The long-term profitability by whether the activities of a country's central bank encompass implementing and ensuring compliance with principles and standards that are established to promote safe, sound, and efficient payment and settlement systems.
Securities Regulation	The long-term profitability by exposure to operations in countries that have not complied with IOSCO objectives, which provide investor protection against manipulation and fraudulent practices.
Auditing	The investment's long-term profitability by whether or not the country uses International Standards on Auditing in setting national standards.
Fiscal Transparency	The investment's long-term profitability by its exposure or business operations in countries that do not have some level of fiscal transparency.
Corporate Governance	The investment's long-term profitability by whether or not the government recognizes and supports good corporate governance practices and whether it generally adheres to OECD principles.
Banking Supervision	The investment's long-term profitability from its exposure to countries that have not endorsed/complied with the Basel Core Principles.
Payment System: Principles	The investment's long-term profitability by whether a country complies with the 10 Core Principles for Systemically Important Payment Systems and whether rules and procedures are clear and permit participants to understand the financial risks resulting from participation in the system.
Insolvency Framework	The investment's long-term profitability from its business operations and activities in specific countries with regard to bankruptcy reform or insolvency legislation.

CALSTRS 21 RISK FACTORS (CONTINUED)

Money Laundering	The investment's long-term profitability from exposure and whether or not a country has implemented an anti-money laundering regime in line with international standards.
Insurance Supervision	Whether or not a country has a regulatory framework in line with International Association of Insurance Supervisors Principles.
Respect for Human Rights	The investment's long-term profitability from its business operations and activities in countries and governments that lack or have a weak judicial system and that engage in or facilitate the following: arbitrary or unlawful deprivation of life, disappearance, torture and other cruel, inhuman, or degrading treatment or punishment, arbitrary arrest, detention, or exile, arbitrary interference with privacy, family, home or correspondence, use of excessive force, and violations of humanitarian law in internal conflicts.
Respect for Civil Liberties	The investment's long-term profitability from operations, activities and business practices in countries or regions that do not allow freedom of speech and press, freedom of peaceful assembly and association, freedom of religion, freedom of movement within the country, allowance for foreign travel, emigration and repatriation.
Respect for Political Rights	The investment's long-term profitability from business practices and activities in countries that do not allow their citizens the right to advocate for change to their government.
Discrimination Based on Race, Sex, Disability, Language, or Social Status	The investment's long-term profitability from business practices and activities on discrimination, such as discrimination against women, children and persons with disabilities, national/racial/ethnic minorities, or indigenous people.
Worker Rights	The investment's long-term profitability from management and practices globally in the area of worker's rights; specifically the right of association, the right to organize and bargain collectively, prohibition of forced or bonded labor, status of child labor practices and minimum age for employment, acceptable work conditions, or human trafficking.
Environmental	The investment's long-term profitability from activities and exposure to environmental matters, such as depleting or reducing air quality, water quality, land protection and usage, without regard for remediation. Consideration should be given to how a company is dealing with the impact of climate change, including whether the government is taking steps to reduce its impact, exacerbating the problem, or oblivious to the risk.
War/Conflicts/Acts of Terrorism	The investment's long-term profitability from business exposure to a country or region that has an internal or external conflict, war, acts of terrorism or involvement in acts of terrorism, and whether the country is a party to international conventions and protocols.
Human Health	The risk to an investment's long-term profitability from business exposure to an industry or company that makes a product that is highly detrimental to human health so that it draws significant product liability lawsuits, government regulation, United Nations sanctions and focus, and avoidance by other institutional investors.

Fixed Income Benchmark Review

In the 2012 Green Initiative Task Force Report, Fixed Income staff mentioned that Barclays and MSCI were teaming up to create a family of co-branded Environmental, Social and Governance fixed income indices in order to give investors the opportunity to organize a portfolio that aligns with their values. In June 2013 Barclays and MSCI announced the launch of the indices. The three main indices are:

1. Barclays MSCI Socially Responsible—an exclusionary index that excludes issuers involved in particular business opportunities that could be restricted for some investors.
2. Barclays MSCI Sustainability—a best-in-class index which includes issuers with high ESG ratings compared to its peers.
3. Barclays MSCI ESG Weighted—provides a method to over-weight or under-weight issuers using an objective rules based approach.

This year, instead of combining various indices to come up with a "benchmark," the Fixed Income unit compared the fixed income holdings internally via the BlackRock system to the Barclays MSCI U.S. Credit Sustainability Index. This index positively screens fixed rate, investment grade corporate bond issuers for a "best-in-class" ranking to their peer group and how effectively they are managing ESG risks.

Of the $46.3 billion in assets that CalSTRS Fixed Income controls, including those held by internal managers, external managers and internally controlled securities lending, CalSTRS holds approximately $16 billion, or 34.7 percent of that amount, in debt securities that are included in the Barclays MSCI U.S. Credit Sustainability Index. The percentage figure is 900 basis points higher than the 25.7 percent, or the $11.6 billion staff reported in the *2012 Green Initiative Task Force Report*, which used a different, blended benchmark.

MSCI is also able to provide a detailed analytical report of our holdings which staff will be researching over the next year. For more information on MSCI ESG Research, visit **msci.com**.

External Manager Engagement

Background and Responses

With the intention of raising awareness of environmental considerations within their investment process, all the external Global Equity investment managers are polled annually to assess the level of climate considerations in their respective processes. From 2010–12, questions asked included:

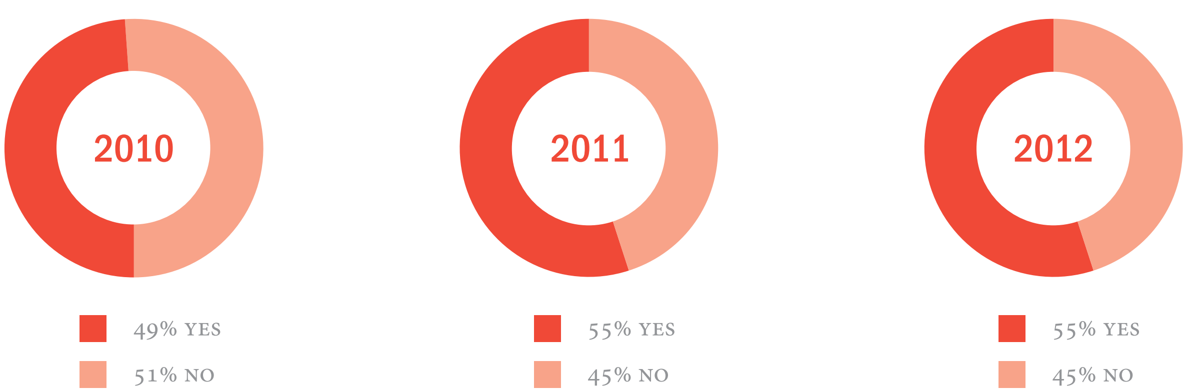
1. Do you explicitly incorporate climate risk into your process?
2. Is climate change a primary factor?

Beginning in 2012, the following question was also asked of the Global Equity external managers:

3. Have you taken steps to better incorporate climate risk into your investment process since last year?

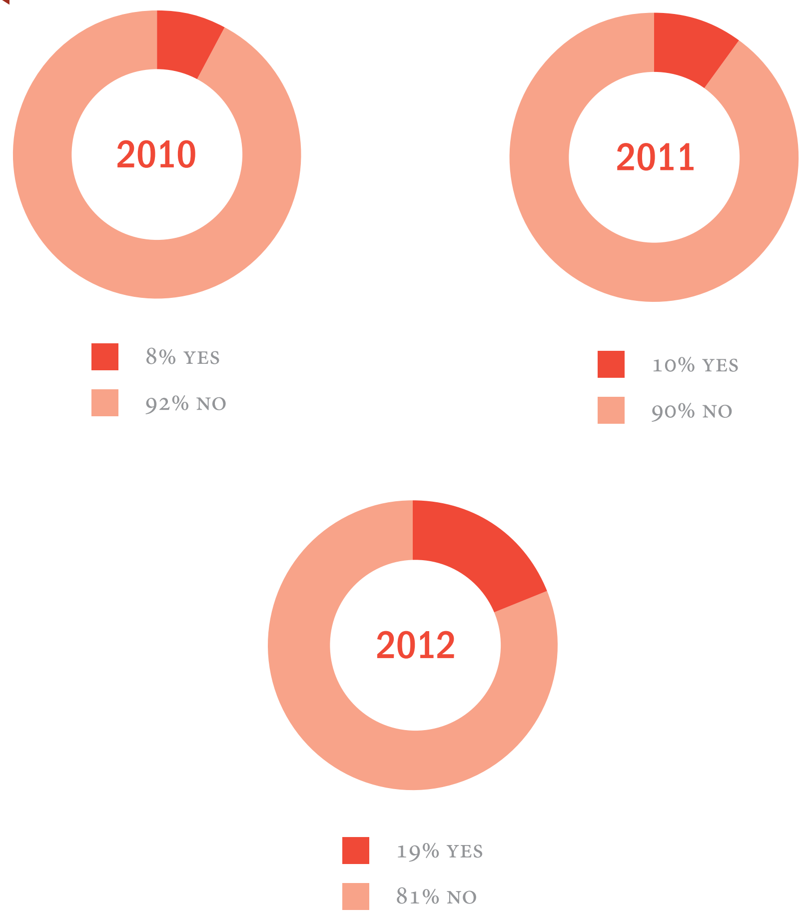
In response to the question of incorporating climate change into investment consideration, for 2012, 55 percent of the Global Equity external managers indicated that they did incorporate climate change into their processes. The following chart provides a historical perspective of external manager responses to this question.

DO YOU EXPLICITLY INCORPORATE CLIMATE RISK INTO YOUR PROCESS?



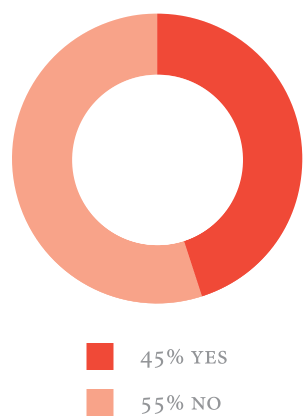
In response to the question of whether climate change was a primary factor in investment considerations, for 2012, 19 percent of the Global Equity external managers indicated that they did make climate change a primary factor in their investment considerations. The following chart provides a historical perspective of external manager responses to this question.

IS CLIMATE CHANGE A PRIMARY FACTOR?



In response to the question of whether managers had taken steps to better incorporate climate risk over the past year, 45 percent of the Global Equity external managers reported that they had.

HAVE YOU TAKEN STEPS TO BETTER INCORPORATE CLIMATE RISK INTO YOUR INVESTMENT PROCESS?



Analyzing the Results

Looking at the manager survey results, from 2010 to 2011 there was in increase in the percentage of managers that explicitly incorporated climate risk into their investment process (from 49 percent in 2010 to 55 percent in 2011), while from 2011 to 2012, the percentage of managers incorporating climate risk remained flat. However, from 2010 to 2012, there has been a consistent increase in the percentage of managers who indicate that climate change is a primary factor in their investment considerations (from 8 percent in 2010 to 10 percent in 2011 to 19 percent in 2012). And in 2012, 45 percent of managers indicated they had improved their climate risk integration efforts.

While the responses to question 1 might suggest a "leveling off" of managers willing to make tangible changes to their investment process to incorporate and consider climate change related issues, the response level to question 3 and the significant increase in "yes" responses to question 2 would seem to indicate that managers are moving toward improving incorporation of climate risk into their investment process.

Sample Responses to Questionnaire

Three anonymous responses to the 2012 CalSTRS Global Equity climate risk survey can be found below. These examples do not include responses from the Global Equity Sustainable Managers, as ESG factors are an integral part of their investment process. Rather, these sample responses come from CalSTRS mainstream public equity managers. Manager's names and other confidential information, such as holdings, have been removed from the responses.

SAMPLE RESPONSES TO QUESTIONNAIRE

Question	Manager A
1. Do you explicitly incorporate climate risk in your investment process?	High standards of corporate responsibility will generally make good business sense and have the potential to protect and enhance investment returns. Consequently, the investment process takes environmental, social and governance issues, including climate risk and opportunity, into account when, in our view, these have a material impact on either investment risk or return. It is our belief that ESG best practices should be encouraged as they are likely to enhance long-term financial return.
Is climate change a primary factor and are you aware of climate change issues when making stock selection?	Although the costs associated with climate change are borne broadly throughout society, climate change issues are relevant to the future performance of a wide variety of companies. The level of relevance and impact depend on the industry sector and region and on the regulatory framework in which a particular company operates. These factors are incorporated into our analysts' valuation process. In addition to considering the impact of climate change on the broad universe of companies we research, we also consider investment in alternative and sustainable energy technologies and other "green" businesses when the fundamentals of these businesses are attractive and the outlook for the individual companies is positive.
What steps have you taken to better incorporate climate risk into your process?	In recognition of the importance of climate change issues in particular and client interest in ESG issues in general, we have recently appointed a new head of ESG to act as a focal point for the company on environmental, social and governance related activities in order to help raise awareness of all these issues within the investment team. This position reports directly to the co-heads of equities.

SAMPLE RESPONSES TO QUESTIONNAIRE (CONTINUED)

Question	Manager B	Manager C
1. Do you explicitly incorporate climate risk in your investment process?	We do not have a specific due diligence process for assessing climate risk distinguishable from the due diligence process for other risks that may impact an investment. Our process integrates material ESG issues which would include, where appropriate, climate risk considerations into the research process. As a bottom up research organization we allocate significant time and resources to our in-house research effort. Our work on ESG varies between analysts and portfolio managers. As long-term fundamental investors, we consider that this issue can be material enough to discuss with companies we are researching when appropriate. We incorporate ESG factors such as climate risk through bottom-up analyses. Rigorous consideration and debate is covered, as with any other potential value driver. ESG issues are not treated separately or differently. Our analysts are in frequent contact with company management. Where we identify an ESG concern that we believe may be relevant to the financial wellbeing of a company, we will engage with the management on that issue.	Yes, we do. We note that specific sectors of the market are directly affected by plans to reduce the level of carbon emissions in an effort to slow the rate of climate change, among other issues. Climate change is therefore an explicit factor in determining revenue and earnings growth profiles of certain companies and/or sectors, relative to others.
Is climate change a primary factor and are you aware of climate change issues when making stock selection?	The significance of climate change as a factor will vary depending on the company and its industry. For example, our utilities analyst spends time discussing the carbon permits and allocations under the E.U. emissions trading scheme. We produce quarterly reports for interested clients, which outline some of our engagement activity. While these reports are not specifically dedicated to climate change, climate change would be included where relevant.	The primary factors in our investment process are identifying interesting long-term earnings growth profiles and using valuation metrics to determine appropriate opportunities to buy or sell particular holdings. Climate change is one of a number of secondary factors that can be significant in altering the primary factors in our investment process.
What steps have you taken to better incorporate climate risk into your process?	Climate risk has clearly been an ongoing topic of concern through the years. Climate risk considerations are continuously integrated into our research process where it is relevant. Our analysts will continuously monitor the increasing progress of some companies on how they address climate change where they believe it is material. For example, for insurance companies, climate change and weather risks are high on their agenda.	We have an iterative investment process that adapts to developing global issues, including climate change, at a macro and a micro level. The rigorous debate that this entails takes place through our regular investment strategy meetings. We consider this the best way to continue to incorporate new and ongoing risks and opportunities into our investment strategy.

FOSSIL FUEL ENGAGEMENT LETTER

CALSTRS
HOW WILL YOU SPEND YOUR FUTURE?

California State Teachers'
Retirement System
Anne Sheehan
Director Corporate Governance
100 Waterfront Place
West Sacramento, CA 95605

June 1, 2013

Jane Doe
Chairperson
U.S. Corporation
1 Main Street
Anywhere, U.S. 00000

Dear Ms. Doe:

This letter is sent to you on behalf of the California State Teachers' Retirement System (CalSTRS), a public pension fund that was established for the benefit of California's public school teachers 100 years ago. CalSTRS serves the investment and retirement interests of approximately 850,000 plan participants. As of March 31, 2013, the CalSTRS portfolio was valued at approximately $160 billion with about $80 billion of the fund's assets being invested in the public equity markets, on both a domestic and an international basis.

A significant percentage of CalSTRS' public equity portfolio is invested in the indexed or passive style of investment management. Therefore, these stocks do not trade on company news or events but are instead held for the long term. We do use our corporate governance rights to address issues with corporations that are held in our portfolio. In our view, this strategy is more efficient for the investing considerations of diversification, minimizing risks and costs, and maximizing returns than simply selling a security each time we have shareholder concerns. As of March 31, 2013, CalSTRS held XX shares of U.S. Corporation common stock, with an approximate market value of $YY.

As you may be aware, for many years CalSTRS has been actively engaging its portfolio companies on the importance of assessing and disclosing the levels of environmental risk that they are exposed to. This effort began back in 2006 with a focus on the risks to our portfolio value that were associated with climate change. Over the years, our engagement focus has grown into a sustainability-related risk management program and includes issues such as waste disposal, water scarcity, energy efficiency, and mineral extraction risk. We try to be aware of emerging issues that present risk to the value of our equity investments and engage those portfolio companies exposed to these risks.

Recently, the issue of fossil fuel reserve valuation has gained prominence. Several news articles, magazine reports and organizational studies have described what is being referred to as a "carbon bubble." The implication is that companies involved in the extraction of fossil fuels, such as coal, oil and natural gas, are not recognizing the limits to the amounts of these fuels they can reasonably expect to extract in the face of pending restrictions on carbon emissions, and their corporate valuations may be inflated as they have been based on a level of fuel extraction that is likely not achievable.

In April of this year, the Carbon Tracker released a report titled *Unburnable Carbon 2013: Wasted capital and stranded assets*. This report, a follow-up to their 2011 publication, was written in conjunction with the Grantham Research Institute and analyzed the carbon intensity of the fuel reserves of the top 200 global fossil fuel companies. The report states that up to 80 percent of existing fossil fuel reserves might need to remain sequestered if global temperatures were to remain within acceptable levels and that such sequestration could result in equity valuations being reduced by up to 60 percent. Supporting this report's findings is a recent conclusion by the International Energy Agency that two-thirds of the world's proven fossil fuel reserves cannot be burned if the world is to avoid a greater than two degrees Celsius increase in temperature.

CALSTRS 100

Our Mission: *Securing the Financial Future and Sustaining the Trust of California's Educators*

Jane Doe
6/1/2013
Page 2

We have reviewed the list of the 200 companies that were identified as being part of the Carbon Tracker's reserve analysis and determined that U.S. Corporation was one of these companies. While we recognize that the percentages of reserve sequestration and value loss discussed in the Carbon Tracker report are based on future scenarios that are difficult to predict, we nevertheless believe that the issues raised in this report and other similarly themed studies warrant further consideration.

Therefore, we would like to begin a dialogue with you concerning your method of fossil fuel reserve calculation and valuation, and whether you consider scenarios under which existing reserves might become sequestered or stranded. Please contact one of my Portfolio Managers, Brian Rice, at 916-414-7413 or brice@calstrs.com, to discuss this matter at your earliest convenience. We look forward to hearing from you.

Sincerely,

Anne Sheehan
Director Corporate Governance
California State Teachers' Retirement System

One of the higher profile risk issues to surface during fiscal year 2012–13 was the Carbon Bubble Theory. Also known as the Stranded Asset Theory, this issue has been discussed by many noteworthy organizations in 2013, including the International Energy Association and the Grantham Research Institute.

The theory states that companies in the oil and gas and coal industries are overvalued as their value is based on a level of fossil fuel reserves that, if burned, would increase atmospheric levels of carbon dioxide such that global temperatures would rise to a level that couldn't support human society. Some experts have predicted that between 40 and 60 percent of fossil fuel reserves would need to be sequestered if global temperatures were to remain within tolerable limits. Were this sequestration to occur, theorists claim, then the valuations of oil and gas and coal companies would dramatically decline.

Consistent with its fiduciary duty to manage risk, staff felt that it would be appropriate to begin a dialogue with fossil fuel producing companies held in the CalSTRS Investment Portfolio on how they were approaching reserve valuation and what steps they were considering in response to potential carbon restrictions. Therefore, during the fourth quarter of fiscal year 2012–13, staff sent letters to 45 U.S.-based companies with significant involvement in the exploration and production of oil, natural gas and coal. These companies, which represent approximately $3.85 billion in Global Equity portfolio value, had been identified as having the largest exposure to fossil fuels.

To date, 20 of the 45 companies have responded to staff's request for engagement. Staff has held meetings or conference calls with 10 of the 20 respondents and additional calls and meetings have been scheduled. The early assessment of this engagement is that fossil fuel producers adhere to strict Securities and Exchange rules on reserve valuation and that environmental-related risks, such as climate change, are continuously evaluated and ways to mitigate carbon emissions are being actively pursued. Staff intends to continue this engagement in the 2013–14 fiscal year.

Hydraulic Fracturing Engagement

CalSTRS staff has been engaging portfolio companies involved in mineral extraction for many years. Portfolio companies involved in deep water oil exploration and production, oil sands development, and natural gas exploration and production face significant environmental risks and staff believes it is important to be working with these companies to ensure that their environmental risk exposure is being properly managed.

Staff sent letters to 45 U.S.-based companies with significant involvement in the exploration and production of oil, natural gas and coal.

During late 2012, concerns surrounding hydraulic fracturing, or fracking, began to again be raised within the investment community. Fracking is when a mixture of water, sand and chemicals is injected deep into an underground well at a high pressure to create micro-fractures in the underground rock formation which allows natural gas to flow back into and up through the well. Investor concerns focused on the type and amount of chemicals in the water that was being injected into natural gas wells and the possibility these chemicals could make their way into ground water.

In response to this risk, CalSTRS staff sent letters to 20 portfolio companies in the oil and gas industry that were identified as using fracking to produce natural gas. These 20 companies had a combined portfolio value of approximately $4 billion. Staff received 11 responses to the engagement request and had discussions with most of these respondents on how they were managing risks associated with fracking, with a focus of the conversations being the chemical content of their fracking fluid.

Ceres

Fossil Fuel Reserve Engagement— Collaborative Efforts

CalSTRS is also supporting a Ceres-led engagement effort focusing on companies most involved in fossil fuels production and use. This engagement is another response to the growing belief that potential limitations on fuel reserves could impact investment value. However, in addition to focusing on oil and gas and coal companies with significant fossil fuel exposure, this engagement effort will also focus on utility companies and the risks these companies face from increased carbon emissions regulation. CalSTRS will be joining many other institutional investors who have also agreed to participate in this engagement and investors expect to begin engaging companies in late 2013.

CalSTRS staff sent letters to

20

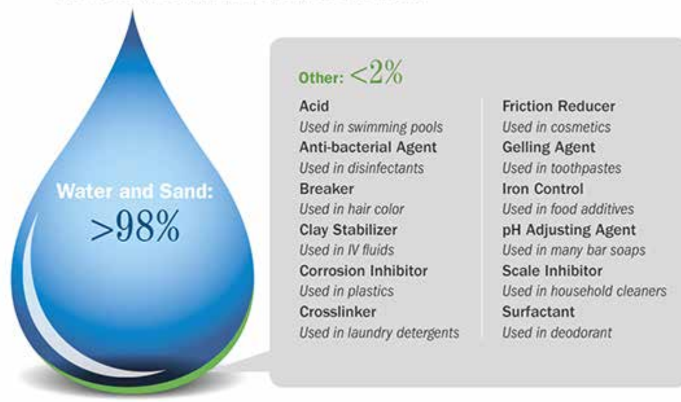
portfolio companies in the oil and gas industry that had a combined portfolio value of approximately

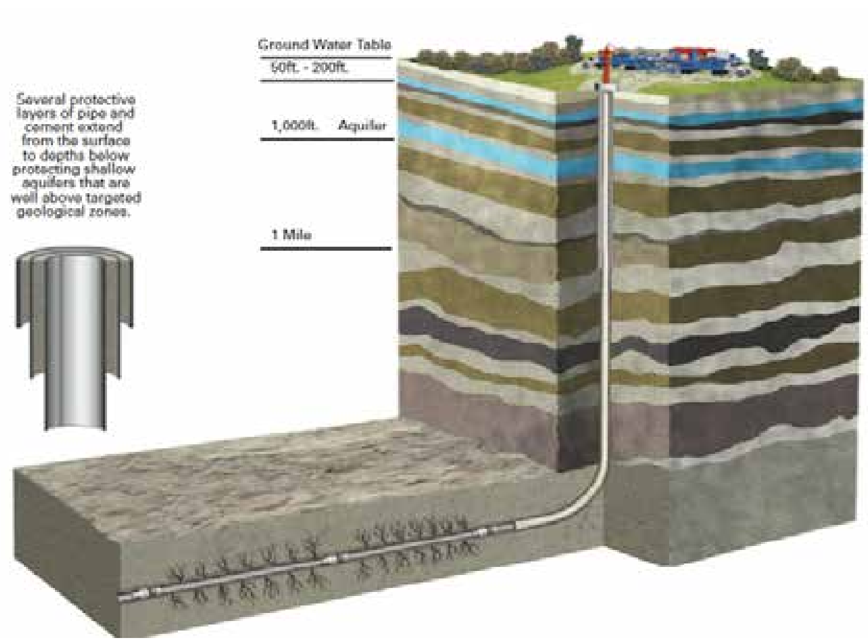
$4 billion.

HYDRAULIC FRACTURING

HYDRAULIC FRACTURING FLUIDS

Fracturing fluids are comprised of approximately 98% of water and sand and about 2% of chemical additives, many of which are used in common household products.





As the above diagrams from **FracFocus.org** show, most fracturing fluids are comprised of approximately 98% water and 2% chemical additives, and most hydraulic fracturing jobs require several protective layers of pipe and cement that often extend thousands of feet below aquifers.

After the discussions, staff felt that all companies engaged were taking measurable steps to manage fracking risks, from the well design stage to the drilling stage through to the completion and production stages. Relative to the risk associated with fracking fluid, all companies engaged were monitoring the types and amounts of chemicals being used in their respective fracking jobs. All companies had onsite emergency response assets and procedures in place in the event of a spill and all the companies were reporting their chemical use on FracFocus.org, a website created by members of the oil and gas industry to provide public access to reported chemicals used for fracking in their area.

CDP Non-responders Engagement

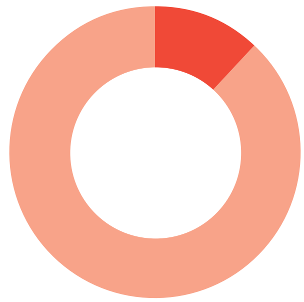
Supported by 655 institutional investors holding a combined $78 trillion in assets, the CDP is an independent not-for-profit organization working to drive greenhouse gas emissions reduction and sustainable water use by businesses around the world. CDP holds the largest collection globally of self-reported climate change data. Through the use of CDP data, investors like CalSTRS are better able to mitigate risk, capitalize on opportunities and make investment decisions that drive action toward a more sustainable world.

Every year the CDP reaches out to thousands of publicly traded companies and requests data on their carbon emissions profiles. The data that is received is then aggregated and analyzed and that analysis is provided to investors in report form free of charge. CalSTRS has been a signatory and member of the CDP for many years and was one of the first North American pension funds to endorse the initiative.

Staff actively supports the CDP through the engagement of non-responding CDP survey recipients. Over the past several years, staff has sent letters to U.S. companies that failed to respond to the CDP's request to complete the carbon emissions survey. These letters detail CalSTRS' support for the CDP, stress the importance of companies measuring and disclosing carbon emissions, and request that the company respond to the next annual survey or provide evidence that carbon risk is being managed at the company.

In 2013 CalSTRS sent letters to 131 U.S. companies that did not respond to the CDP carbon emissions survey. As the following charts reflect, these 131 companies represent more than $7 billion in portfolio value, which is approximately 12 percent of our U.S. equity portfolio and approximately 8 percent of our Global Equity portfolio.

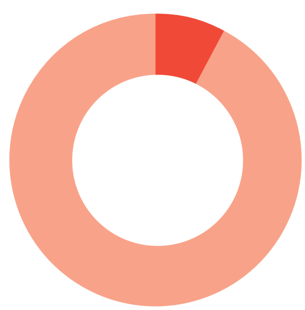
CDP ENGAGEMENT—U.S. PUBLIC EQUITY PORTFOLIO COVERAGE



12% PORTFOLIO COVERED

88% PORTFOLIO NOT COVERED

CDP ENGAGEMENT—GLOBAL EQUITY PORTFOLIO COVERAGE

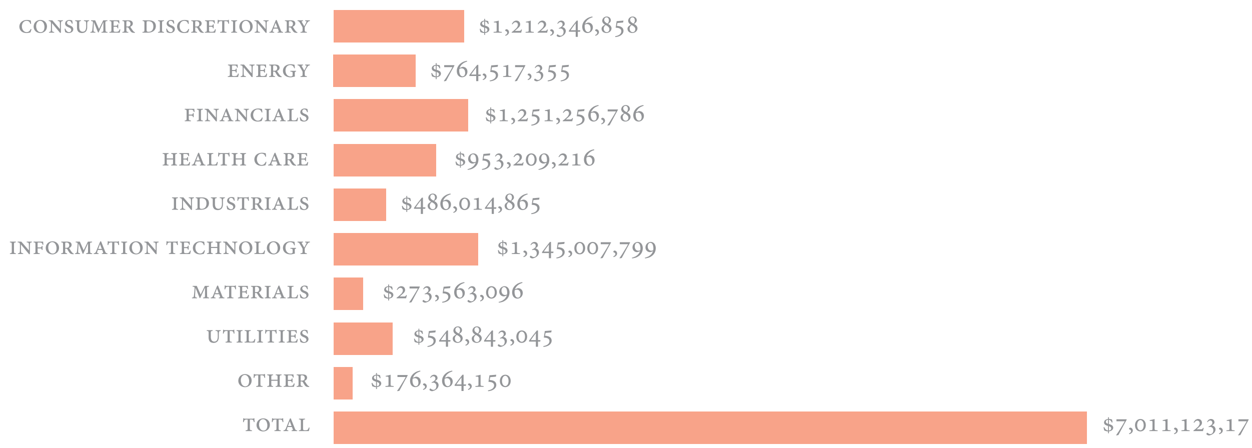


8% PORTFOLIO COVERED

92% PORTFOLIO NOT COVERED

In 2013, CalSTRS sent letters to 131 U.S. companies that did not respond to the CDP carbon emissions survey. These 131 companies represent over $7 billion in portfolio value.

CDP ENGAGEMENT—INVESTMENT VALUE COVERAGE BY SECTOR



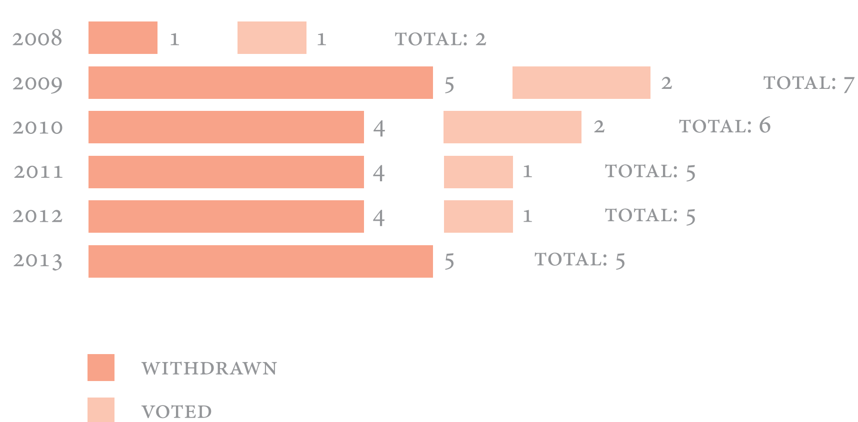
Since 2008 CalSTRS has filed 30 environmental-related shareholder proposals that called on companies to improve their environmental risk management disclosure efforts.

CalSTRS Environmental Risk Shareholder Proposals

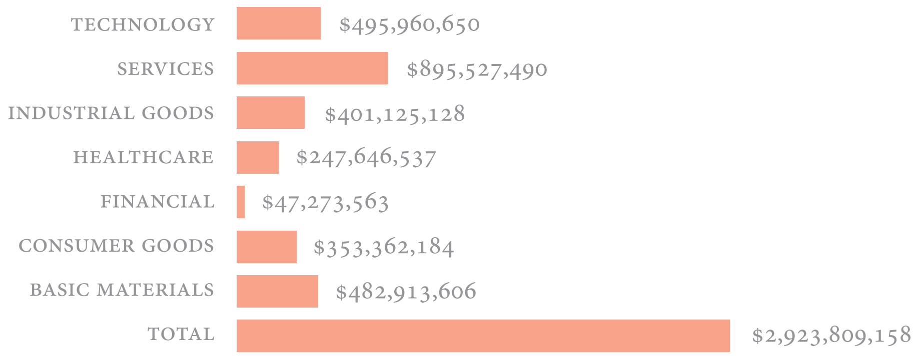
When staff does not believe that a company has made, or is willing to make, the necessary progress toward managing environmental risks, staff will strongly consider exercising CalSTRS' equity ownership rights by filing a shareholder proposal with the company, calling on it to improve its environmental risk management efforts. The intent of the proposal is to bring CalSTRS' concerns to the company's shareholders and get enough shareholder support to convince the company to commit to CalSTRS' recommendations. Often times, the filing of a proposal will increase a company's willingness to engage further with staff and lead to a committal to improve risk management and disclose.

Since 2008 CalSTRS has filed 30 environmental-related shareholder proposals that called on companies to improve their environmental risk management disclosure efforts. Twenty-three of those proposals were ultimately withdrawn before the annual meetings as staff was able to negotiate a mutually agreeable outcome with the company. The seven proposals that have been considered by shareholders have received, on average, approximately 25 percent of the votes cast either for or against.

SHAREHOLDER PROPOSALS: HISTORICAL OUTCOMES



EFFICIENCY ENGAGEMENT PORTFOLIO COVERAGE BY SECTOR



Energy Efficiency Engagement

For the fiscal year 2012–13 proxy season, CalSTRS filed five shareholder proposals that called on companies to report on their energy use management strategies. The companies targeted for these proposals were identified through a lengthy engagement campaign that began in 2012, when staff performed a detailed analysis of CalSTRS' Russell 1000 Index holdings and identified approximately 100 companies within the index that were most in need of engagement on implementing and disclosing energy efficiency efforts.

Staff sent engagement letters to the 100 companies identified through its analysis of the Russell 1000 Index. These companies had a combined portfolio value of nearly $3 billion, which represents approximately 6.5 percent of the CalSTRS U.S. portfolio and 4 percent of the CalSTRS Global Equity portfolio. The engagement letters outlined CalSTRS' belief that companies need to be cost effective, that incorporating efficiency initiatives into business plans would be beneficial from a financial and reputational perspective, and that disclosure surrounding the company's efforts at efficiency could be improved.

More than 30 of the 100 companies targeted responded to staff's engagement letter. The five companies that received proposals did not respond to the engagement letter and did not appear to be considering energy efficiency initiatives. However, subsequent to receiving our shareholder proposals, all five companies chose to engage us and either demonstrated that energy efficiency was being considered or agreed to implement energy efficiency reviews of their operations. For this reason, all five proposals were withdrawn.

Proxy Voting

Voting corporate proxies is a fundamental and important way to manage the risks associated with public equity ownership. Voting proxies is also a duty of all fiduciaries. The responsibility for voting CalSTRS proxies has been delegated by the Teachers' Retirement Board to staff. Attachment B to the CalSTRS Investment Policy for Mitigating ESG Risks is called the Financial Responsibility Criteria for Corporate Investments, and is a set of guidelines that CalSTRS staff uses to assist it in making proxy vote decisions. These guidelines provide direction in determining how environmental-, social- and governance-related proposals should be considered. The board regularly reviews, revises and approves the guidelines.

During the 2012–13 fiscal year, CalSTRS considered 54 environmental proposals.

Over the course of any fiscal year, staff considers dozens of environmental-related shareholder proposals that cover a variety of issues and levels of action. Environmental proposals cover issues such as carbon emissions, land use, waste disposal, and extractives risk management, and request actions such as report preparation, emissions targets and waste reduction goals. During the 2012–13 fiscal year, CalSTRS considered 54 environmental proposals, supporting 20 of them and voted against 34. The following table provides a breakdown of the various issues considered and votes cast per issue.

ENVIRONMENTAL PROPOSALS, JULY 1, 2012–JUNE 30, 2013

Issue Description	Votes Against	Votes For	Issue Votes
Comprehensive Recycling Strategies	1	0	1
Bioengineering/Nanotechnology Safety	3	1	4
Environmental/Social Committee	5	0	5
Misc. Energy/Environmental Issues	5	4	9
Action on Climate Change	3	1	4
Reducing Greenhouse Gas Emissions	5	1	6
Energy Efficiency and Renewables	2	0	2
Nuclear Facility/Waste	3	0	3
Sustainability Report	7	13	20
Total	**34**	**20**	**54**
Percentage	**63%**	**37%**	**100%**

The percentage of votes against these proposals does not represent of a lack of concern on environmental issues. This vote percentage reflects CalSTRS' desire to support proposals that staff believes will add value to the investment. Many of the environmental proposals were considered to be lacking shareholder value or were substantially involving the day-to-day management of the company.

Traditionally CalSTRS supports proposals that call for improved environmental risk reporting, unless it is believed that the company already adequately discloses these risks. Generally speaking, CalSTRS does not support environmental proposals that are intended to substitute for management's operational judgments. CalSTRS believes that companies should be managing environmental risk but also believes that companies should be the ones to decide how to design and implement risk management systems.

INVESTMENT MANAGERS & MANAGER INVESTMENTS

The following is an overview of each of the four managers in the Global Equities Sustainable Investment Program, along with a summary of a company in each of their portfolios.

Global Equity Investment Managers

NEW AMSTERDAM PARTNERS LLC

New Amsterdam Partners is a long-only public equity asset management firm founded on an innovative philosophy: an intellectually rigorous and disciplined blend of quantitative and fundamental investment research will produce superior stock selection. New Amsterdam Partners was founded in 1986 to bridge the chasm between the methods of quantitative and fundamental stock analysis. Discerning the strengths and limits of each, Michelle Clayman, CFA, managing partner and CIO, developed an approach that integrates both disciplines to yield a decisive and intellectually sound edge in stock selection.

New Amsterdam considers environmental, social and sustainability factors when making investment decisions. The firm looks at factors that relate to alcohol, tobacco, gambling, military contracting and nuclear activities, as well as issues surrounding community, diversity, employees and environmental performance. In its investment process, when building its portfolios, New Amsterdam screens each security for the aforementioned factors after it passes through the fundamental phase of the investment process. New Amsterdam has a U.S. mandate.

Pioneer Natural Resources Company (New Amsterdam)

Pioneer Natural Resources Company operates as an independent, onshore oil and gas exploration and production company in the United States. The company produces and sells oil, natural gas liquids and gas. The company was founded in 1997 and is headquartered in Irving, Texas. Total revenues in 2012 were $3.2 billion. Since the March 2012 purchase through the end of July 2013, the stock has returned 39.2 percent, handily outpacing both the Russell 1000 (23.6 percent) and the S&P 500 (23.2 percent).

Total revenues in 2012 were $3.2 billion.

Within its industry, Pioneer has been a standout for its responsible practices. Pioneer strives to be the top-ranked operator in the Permian Basin in regards to spill management and pollution prevention.

Pioneer has been recognized with numerous awards for its commitment to the environment, including: Oil & Gas Investor's Best Corporate Citizen Award (2010); Department of the Interior Environmental Achievement Award (2008); the Bruno Hanson/Midland College Award for Environmental Excellence (2009). Additionally, in a joint effort among industry peers and regulators, Pioneer has helped create the website FracFocus.org, a public registry of reported chemicals used for hydraulic fracturing.

New Amsterdam believes that Pioneer is attractively valued and is well positioned for strong forward earnings growth in the coming years. The company is using proceeds from the partial sale of certain assets to accelerate the development of its large acreage position in the oil-rich Wolfcamp and Eagle Ford shales in Texas, which combined with rising crude prices should translate into strong earnings and share-price performance.

Light Green Advisors

RhumbLine
Institutional Index Management

Light Green Advisors and Rhumbline formed a joint venture partnership and were selected to manage a sustainable portfolio using a U.S. mandate. Rhumbline is an investment firm that was formed in 1990 and specializes in managing index based strategies for institutional clients. Light Green Advisors is an independent asset management firm that specializes in managing environmental sustainability mandates for institutional clients. Light Green was founded by Glenn Anderson, Mark Sten and John Naimon in 1998.

The firm's investment philosophy is that a limited subset of widely varying environmental cost factors are financially material. Light Green Advisors has found that successful environmental programs add economic value to firms in a wide range of industries through operation cost reductions and reduced litigation costs. Light Green Advisors relative value strategy leverages proprietary research on the relationship between environmental excellence and financial return.

Tesla Motors (Light Green Advisors/RhumbLine)

Tesla Motors, an electric vehicle producer, is a new portfolio holding initiated in March 2013. Electric vehicles embody the promise of a new era of lower-emissions transportation. Electric vehicles are not new, per se: an electric vehicle first reached a modern highway speed of 60 miles per hour in 1899. What is new is the emergence of a growing market of consumers interested in driving high performance cars that don't require fueling with gasoline. The market's positive reaction to Tesla's growing product line demonstrates that there does not have to be a tradeoff between performance and the environment.

The Tesla Model S has superlative performance relative to previous generations of electric cars, with the Model S going 0–60 miles per hour in 4.0 seconds. The Model S received Motor Trend's Car of the Year award and Consumer Reports' first-ever 99/100 rating for an automobile. Depending on driving conditions, the car averages between 70–100+ miles per gallon-equivalent and can travel 250 miles on a single charge. Unlike many high performance luxury vehicles, the Model S has more than 60 cubic feet of cargo space.

Tesla's future growth is powered by three key supply chain innovations:

- In-house engineering of battery and power plant, reversing a 50-year trend among automakers of outsourcing key component development to suppliers. Tesla's batteries use nickel cobalt and aluminum rather than rare earth metals. The company has developed intellectual property and valuable expertise in the process that has resulted in commercial contracts for electric vehicle power units for both Daimler Benz and Toyota.

- Committing to build out a network of charging stations, and thus going beyond the nameplate of the car and addressing one of the key infrastructure barriers to greater adoption of electric vehicles by U.S. consumers: fear of running out of electricity since charging station infrastructure is quite limited today.

- Building out renewable energy capacity with its affiliate SolarCity for potential use by Tesla customers. Tesla's contribution to a national solar charging network addresses the Achilles' heel of the environmental case for electric cars—the fact that almost 50 percent of on-grid electricity is derived from coal.

Tesla's decision to offer Model S customers a minimum future resale value of its cars based upon the resale value of Mercedes passenger vehicles of the same vintage is a financial innovation that places more responsibility on the company's balance sheet. Moreover, the program provides Tesla customers with a level of certainty regarding resale price in three years in an industry with significant uncertainty over the impact of future battery technology on vehicle prices.

LGA believes Tesla's CEO, Elon Musk, has the combination of creativity and pragmatism required to create a new niche and drive international interest in electric vehicles and alternative ways of powering other transportation systems. Tesla is not only an innovative force in the auto industry but a company that has potential to grow into a global leadership role in the transportation sector.

AGF

AGF Investments America's equity strategy invests in securities that fit its proprietary environmental concept of sustainable development. Its investment strategy employs a thorough due diligence on company fundamentals and emphasizes companies with viable business models derived from sustainable competitive advantages. These companies tend to be categorized as environmental innovators, environmental leaders and environmentally benign companies. AGF focuses on four major themes: energy and energy efficiency, water and waste water solutions, waste management and pollution control, and environmental, health and safety.

AGF pioneered sustainable development investing in Canada with the 1991 launch of their Clean Environment Funds. Martin Grosskopf is the portfolio manager for this strategy and is also the director of Sustainable Research for AGF. His prior experience includes Acres International Limited where he was an environmental scientist.

Secure Energy Services (AGF Investments)

Secure Energy Services is an energy service company that focuses on providing specialized waste services to upstream oil and natural gas companies operating in Western Canada and North Dakota. The company treats and sells crude oil and the handling of byproducts associated with oil and natural gas development and production.

Secure is expected to grow 25 percent per year for the next five years through organic development of its Process Recovery and Disposal division and accretive acquisitions. The company's EBITDA is estimated to generate $140 million in 2013 and $190 million in 2014. With a current enterprise value of $1,453 million, Secure is trading at 11.7x 2013 and 8.7x 2014 EBITDA.

AGF views this multiple as reasonable relative to its outstanding growth prospects and likelihood for increased investor focus on environmental solutions within oil and gas drilling. Secure's management team has a track record of success in similar businesses and is well known to AGF. Initial positions in Secure were established in other AGF funds during pre-IPO financings. The initial position for the CalSTRS portfolio was purchased during the IPO at $3 per share. with the company currently trading above $14 per share.

generation

Generation LLP was established in April 2004. Former Vice President Al Gore, co-founder and chairman, has been a leading advocate for confronting the threat of global warming for decades. David Blood is a senior partner and previously served as CEO of Goldman Sachs Asset Management. Generation is committed to long-term investing and integrated sustainability research. Generation is one of CalSTRS non-U.S. sustainable managers.

Secure is expected to grow 25 percent per year for the next five years through organic development.

Generation uses a global investment strategy to identify public equity companies that fit its concept of sustainable investments. Generation believes investment results for equity strategies are maximized by taking a long-term investment horizon. Furthermore, it believes that sustainability issues can impact a company's ability to generate returns and therefore must be fully integrated into its investment process, along with rigorous fundamental equity analysis, to achieve optimal long-term investment results. Generation uses the term "sustainability research" as the analysis of shareholder value implications of long-term environmental, as well as economic, social and geopolitical, challenges.

Novo Nordisk (Generation)

About 180 million people around the world suffer from diabetes, and this figure is expected to rise to 330 million by 2025. The growth of this disease has reached pandemic proportions, with the U.N. taking the unprecedented step in December 2006 of deeming access to diabetes care as a human right that should no longer be neglected by governments. The diabetes pandemic affects the world—it is estimated that one in every three Americans born in 2000 will be diagnosed with diabetes in their lifetime.

The company also focuses on energy efficiency in response to climate change, aiming to reduce its total CO_2 emissions by 10% by 2014.

Novo Nordisk is one of only three companies operating in the market for insulin, the last resort treatment for all diabetics. As well as providing treatment, Novo Nordisk is striving to prevent the growth of the disease worldwide. As part of that aim, it has developed unique detection and prevention programs with the Chinese and Indian governments. It also conducts a research and development program destined to find therapies that eliminate the disease.

Novo Nordisk has sustainability fully embedded into its operations, and has done so since its founding in 1922. In addition to being widely recognized as a leader in stakeholder engagement, Novo Nordisk undertakes detailed triple bottom line reporting to acknowledge the non-financial impacts of its operations on the communities in which it operates. The company also focuses on energy efficiency in response to climate change, aiming to reduce its total carbon dioxide emissions by 10 percent by 2014.

The business in which Novo Nordisk operates has substantial barriers to entry owing to patents, high capital intensity of insulin manufacture, complex injection devices and distribution networks. As such, the company has good margins and has grown very consistently for a long period of time—sales growth has been higher than 10 percent in each of the last 10 years. The company over the long term expects to grow its profits at a rate of 15 percent per year.

Fixed Income—Corporate Sustainability Initiatives

The CalSTRS Fixed Income unit considers sustainability issues when making bond investments. This section of the report highlights some of the sustainable initiatives made by some of Fixed Income's portfolio companies: Procter & Gamble, Waste Management, Republic Services and ConAgra Foods.

In November 2012 Procter & Gamble, a global consumer products company, was presented with the 2012 Economist Social Innovation Award for its Children's Safe Drinking Water Program. Phil Souter, a Procter & Gamble employee, invented a powder technology that when mixed with water removes dirt and pollutants while killing bacteria and viruses.

The CalSTRS Fixed Income unit does consider sustainability issues when making bond investments.

The product is now called Purifier of Water, which comes in small packets to be stirred in 10 liters of dirty water. The powder causes the heavy metals, dirt and parasites to settle at the bottom of a container, which can then be strained. After a short wait, the water will be clean enough to drink. Procter & Gamble and global partners have delivered more than 5 billion liters of clean drinking water to families in developing countries. The Fixed Income unit currently holds $8.5 million Procter & Gamble bonds.

Another example of a strong corporate sustainable initiative is Waste Management, a waste collection company. In November 2012 Waste Management of Canada opened the largest licensed private sector recycling facility in Ontario. The new single stream facility is able process approximately 600,000 tons of material annually. A single-stream process eliminates the need for businesses to separate plastics, metals and papers prior to collection.

The 126,000-square foot plant accepts both industrial and municipal waste with a significant focus on businesses. The facility offers more convenient and more cost effective recycling solutions for businesses in the service area. The facility also created 80 new jobs for the area. The Fixed Income unit currently holds $28.2 million Waste Management bonds.

The projects also delivered more than **$22 million** in savings, demonstrating the economic value of ConAgra's commitment to sustainability.

Republic Services, also a waste collection company, is another example of a company with sustainable initiatives. In August 2012 the company announced an agreement with Clean Energy Renewable Fuels (CERF) to recover landfill gas from its North Shelby Landfill in Millington, Tennessee, for various uses, including as a vehicle fuel for its growing natural gas powered fleet.

CERF will build the high-BTU plant to process landfill gas, a natural byproduct of decomposition, and inject it into the U.S. natural gas network. It is expected to produce almost 4 million diesel gallon equivalents of renewable natural gas annually. If it is used to fuel trucks, it could fuel approximately 260 trucks per year. Production is expected to begin in late 2013 and grow to 5.7 million diesel gallon equivalents. The Fixed Income unit currently holds $23 million Republic Services bonds.

A final example is ConAgra Foods, a consumer and commercial food company. In 1992 ConAgra started the Sustainable Development Awards program to encourage and incentivize employees to look for ways to eliminate waste, reduce energy and conserve water through smart design. The winning teams are awarded a $5,000 grant to apply toward a sustainable community service project. On March 20, 2013, ConAgra announced the winners. The 90 entries collectively:

- Reduced carbon emissions by more than 26,700 metric tons.
- Reduced landfill waste by 23,000 tons.
- Optimized and improved packaging while using 3 million pounds less material.
- Conserved 646 million gallons of water.

The projects also delivered more than $22 million in savings, demonstrating the economic value of ConAgra's commitment to sustainability. The Fixed Income unit currently holds $15 million ConAgra bonds.

Private Equity Investment Managers

Below is an overview of a manager in the Private Equity Clean Technology and Energy Program, as well as an overview of one of the program's investments.

Craton Equity Partners

CalSTRS committed $15 million in Craton Equity Investors II, L.P. in September 2012. Craton II provides growth capital to small and mid-cap companies with a focus on sustainability and resource efficiency that can show reductions in carbon emissions or notable environmental benefits as a result of the use of its products or services. The fund seeks to invest in companies that are beyond technology risk, generate revenue and seek capital to expand operations.

Investments are expected to include providers of new technologies, processes or intellectual property that assist in satisfying the environmental regulatory demands of government and improved environmental quality and sustainability. Craton II has already invested in companies that provide financing for residential solar, commerce technology, organic foods for public schools across the U.S., and mobile applications to hail taxi cabs.

CRATON EQUITY PARTNERS
TOM SOTO
PODER'S TOP 100 GREEN LATINOS 2013

The CalSTRS Green Team would like to congratulate Tom Soto, a founding partner in Craton Equity Partners and one of CalSTRS Private Equity external managers, for being recognized as one of the top green investors for 2013.

Tom Soto has more than 20 years of experience in California working for and leading environmental groups, such as the Coalition for Clean Air and the Mono Lake Committee. From this experience, Soto recognized a growing need for businesses to address climate change, water quality and other environmental issues.

Under Soto's leadership, Craton Equity Partners invests in companies that develop technologies for energy generation, water treatment and other environmentally responsive activities. Craton focuses on growing small-cap businesses and looks for natural exits through strategic acquisition or purchase.

Investment – RidgeWind Limited

RidgeWind Limited, a wind farm power generation company in the U.K., is an example of a successful investment that was made in the clean tech buyout portfolio. The investment was made in May 2007 by HgCapital through Renewable Power Partners, a U.K.-based CleanTech Venture Capital fund. CalSTRS invested $65 million in HgCapital RPP in 2010.

RidgeWind Limited is a high quality wind farm platform that is typical of HgCapital's buy-and-build strategy. RidgeWind started as a single site and grew into seven wind farm sites producing a total of 177 megawatts and becoming the sixth largest independent wind farm in the U.K.

The manager exited the U.K. wind platform in two stages. First in August 2012, RPP I sold three U.K. wind farms to Munich Re (one of the world's largest insurance companies, located in Germany) for €165 million, returning 2.1x original cost and a 20 percent gross IRR. The second exit was in February 2013, when RPP I sold the remaining RidgeWind assets to Blue Energy (a U.K.-based developer of renewable energy infrastructure) for €77 million, returning 1.6x original cost and 15 percent gross IRR. The investment generated a total return of 1.9x original cost and a 17 percent gross IRR. Upon full realization, these exits alone are expected to return approximately 70 percent of CalSTRS' commitment to RPPI fund.

CalSTRS invested $65 million in HgCapital RPP in 2010.

REAL ESTATE: BUILDING GREEN

Accenture Tower, Minneapolis, MN

The following is an overview of an efficiency project that one of the managers in the CalSTRS Real Estate portfolio, CBRE, has successfully completed.

Challenge

Accenture Tower, constructed in 1987, is a Class A multi-tenant office building in Minneapolis, MN. CBRE faced several challenges to reduce energy consumption at the property. A few of the challenges were lighting costs, energy management programming, HVAC controls and costly steam and chilled water.

Sample Solutions

- Performed lighting retrofit in parking ramp, replacing 100 percent of the inefficient high pressure sodium bulbs with fluorescent bulbs.
- Changed the building standard light fixture from a 2x4 T8 fixture to a 2x2 T5 fixture.
- Replaced all incandescent bulbs with LED bulbs when appropriate.
- Obtained tenant agreements to have HVAC shut down at 5 p.m. Monday through Friday, with Saturday service as requested.
- Implemented MACH energy as a tool to monitor the building's energy usage.
- Added dual flush valves on toilets saving 300,000 gallons annually.
- Installed rain sensors on its irrigation system, reducing water consumption by 25 percent, or 45,000 gallons annually.
- Cut building's chilled water consumption during winter by 90 percent due to the addition of chilled water circulating pumps.
- Implemented day cleaning.
- Implemented full service recycling program.

QUICK FACTS

- Energy Star rating of 91
- Cut steam usage by 32.42%
- Cut chilled water usage by 43%
- Cut electricity usage by 26.03%
- Cut trash hauling costs by 50%
- BOMA 360 performance building
- International TOBY award
- Regional TOBY Earth award
- LEED EB Silver certification

Results

Overall energy consumption has decreased 22 percent or 1,986,385 kilowatt hours since 2008 and its Energy Star rating has increased to 91.

Accenture Tower earned LEED EB Silver certification in 2009 and the building is currently recertifying LEED EB to Gold status.

In 2010 Accenture Tower won the International Outstanding Building of the Year (TOBY) Award from the Building Owners Managers Association International. In 2013 the building won the local and regional TOBY in the Earth category.

INFLATION SENSITIVE: GREEN INFRA-STRUCTURE

The following are examples of green investments in the CalSTRS Inflation Sensitive Portfolio.

FIRST RESERVE ENERGY INFRASTRUCTURE FUND

First Reserve
— Energy Investors Since 1983 —
30

Investment: SunEdison Reserve

SunEdison Reserve owns a portfolio of contracted solar photovoltaic power generation facilities in Europe and North America. The portfolio currently consists of interests in 255 megawatts of generation capacity, including a 71-megawatt facility in Rovigo, Italy, one of the largest facilities in Europe. As of March 31, 2013, First Reserve has invested a total of $153 million through First Reserve Energy Infrastructure Fund I into SunEdison Reserve.

Rovigo, the largest asset in the SunEdison portfolio, is one of the largest utility scale projects in the world, and the largest in Europe. The project covers an area of 850,000 square miles (equivalent to 120 soccer fields) and consists of 280,000 solar modules, 840 kilometers of cables and 50 kilometers of conduits. The projects' power output roughly equates to the removal of 8,000 cars from the road, prevents emissions of approximately 40,000 tons of CO_2, and is sufficient to power 16,500 homes.

Investment: Renovalia Reserve

Renovalia Reserve is a joint venture formed with Renovalia Energy, a privately owned renewable energy developer/operator. The company owns and operates a 259-megawatt portfolio of operating onshore wind farms comprising six projects in Spain (244 megawatts), one in Hungary (15 megawatts) and two in Mexico (228 megawatts). Renovalia Reserve is headquartered in Madrid, Spain.

In December 2011 the First Reserve Energy Infrastructure Fund purchased a 50 percent stake in Renovalia Reserve. Renovalia Reserve is jointly controlled on a 50/50 joint venture basis, with equal board and shareholder representation by both parties. Revenues are derived from long-term tariff support mechanisms. Costs are largely fixed long term, with day-to-day management services provided by a 15-year Management Services Agreement with Renovalia Energy.

Renovalia is also actively developing proprietary technology that minimizes the environmental impact of the installation of metal structures for photovoltaic components by not using concrete when fixing the structure to the ground, making Renovalia's PV plants more environmentally friendly.

MERIDIAM INFRASTRUCTURE

Investment: Montreal University Hospital Research Centre

When it opens at the end of 2013, the Montreal University Hospital Research Centre will be one of North America's foremost medical research centers. The building, featuring state-of-the-art technology in a wide range of fields, including a cyclotron and the latest generation imaging equipment, will accommodate first-class research teams and platforms in a 68,431 square meter (736,585 square foot) space, supporting the development and testing of new treatment regimes.

The project covers all aspects of the infrastructure's financing, design, construction, operation and maintenance. It is part of a wider program of restructuring and development by the Centre Hospitalier de l'Université de Montréal, which currently treats around 500,000 patients per year, the majority of whom require highly specialized care.

One of the key objectives of the project is to construct a building that is designed to be environmentally efficient and that minimizes pollution during its construction, as well as in its day-to-day operations.

Meridiam Infrastructure has a CAD 13 million commitment to this project and CalSTRS has an 11.5 percent share of total fund commitments.

BALFOUR BEATTY INFRASTRUCTURE PARTNERS

Investment: McEwan Power

McEwan Power is a portfolio of three operational U.K.-based, ground-mounted solar parks—Owls Lodge, Shelswell and Skylark. These solar parks benefit from the revenue support provided by Renewable Obligation Credits that are available in the U.K. under a well-established regulatory framework.

Designed to generate just over 20 megawatts of energy, this investment is forecast to achieve a whole life IRR of 11.9 percent.

Owls Lodge

Shelswell

Skylark

INVESTMENT PORTFOLIOS & PERFORMANCE

1. GLOBAL EQUITY SUSTAINABLE INVESTMENT PROGRAM

All the investments listed in this report were made as part of the normal course of business, received the same level of due diligence as any investment made by CalSTRS, and were made with the primary objective of receiving a maximum rate of return commensurate with an acceptable level of risk.

Within the active components of both U.S. and non-U.S. public equity, the CalSTRS Global Equity team is pursuing the "double bottom line" goals of both competitive returns and sustainable investing through allocations to four investment managers.

Program Summary

In 2007 CalSTRS initiated the Global Equity Sustainable Investment Program. Since that time, the assets under management in this program have grown to $780 million as of June 30, 2013. Managers are normally evaluated over a period of three to five years, and the program has reached its six year anniversary. Since inception, the U.S. sustainable portfolio has slightly detracted from the return of the Global Equity portfolio by 0.13 percent while the non-U.S. portfolio has enhanced the return of the Global Equity portfolio by generating 3.10 percent of excess return. Staff will continue to evaluate allocations to and within the sustainable investment program.

The Global Equity Sustainable Investment Program assets have grown to $780 million as of June 30, 2013.

In addition, Global Equity staff actively engages the core investment managers about their continued consideration of CalSTRS' 21 risk factors, as set forth by the Investment Policy and Management Plan, when making investment decisions. The

PROGRAM ASSETS

Manager Name	Funded	Market Value ($millions)	Benchmark	Comments
New Amsterdam Partners	2007	$85.5	Russell 1000 ex Tobacco ex Firearm	New Amsterdam screens for environmental performance factors after it passes through the fundamental phase of the investment process.
Light Green Advisors & Rhumbline	2007	$64.2	S&P 500 ex Tobacco ex Firearm	Light Green Advisors believes that successful environmental programs add economic value to firms in a wide range of industries through operation cost reductions and reduced litigation costs.
AGF Investments America	2007	$208.4	MSCI World ex Tobacco ex Firearm	AGF invests in companies with viable business models categorized as environmental innovators, environmental leaders and environmentally benign companies.
Generation Investment Management	2007	$421.8	MSCI World ex Tobacco ex Firearm	Generation believes sustainability issues can impact a company's ability to generate returns and, therefore, must be fully integrated with rigorous fundamental equity analysis to achieve optimal long-term investment results.
Total		**$779.9**		
Source: State Street as of 6/30/2013				

PROGRAM PERFORMANCE

Annualized Performance Since Inception				
Manager Name	**Inception Date**	**Portfolio Return**	**Benchmark Return**	**Net Excess Return**
New Amsterdam Partners	7/1/2007	2.60	3.43	–0.83
Light Green Advisors	5/1/2007	3.95	3.37	0.58
U.S. Sustainable Composite	5/1/2007	3.47	3.60	**–0.13**
AGF Investments America	8/1/2007	–0.03	0.59	–0.62
Generation Investment Management	6/1/2007	5.60	0.08	5.52
Non-U.S. Sustainable Composite	6/1/2007	3.18	0.08	**3.10**
Source: State Street as of 6/30/2013				

equity managers provide their insights on the 21 risk factors as they relate to the invested countries and companies. Environmental risk is one of the 21 risks listed in the policy, which addresses key themes within the sustainability program—Climate Change, Air Quality, Water Quality and Land Protection.

In further efforts to raise awareness of environmental considerations when investing, all external equity investment managers are surveyed annually to assess how they consider climate change risk in their investment process.

The CalSTRS sustainable managers are mandated with the double bottom line goal, which includes both a dedication to sustainable investing as well as competitive returns. Evaluating these managers on traditional benchmarks is problematic as these mandates intentionally overweight sustainable stocks which may face short-term headwinds. While this mismatch is noted, these managers are expected to contribute to the excess return target over the policy benchmarks in the long term.

2. PRIVATE EQUITY CLEAN TECHNOLOGY AND ENERGY PROGRAM

The Private Equity clean energy portfolio is a diversified portfolio of venture and buyout investments across the clean technology and clean energy universe. Private Equity intends to be a long-term investor in the clean technology and energy sector with superior domain expertise. The program is global in scope and includes both fund investments and co-investments.

Private Equity clean energy portfolio investments are screened and selected using the same processes and decision making criteria consistent with the Private Equity program as a whole.

Potential investments are screened and selected using the same processes and decision making criteria consistent with the Private Equity program as a whole. Investments are considered side-by-side along all other Private Equity opportunities and are held to the same standards with respect to risk-expected return profiles and due diligence procedures and requirements.

PORTFOLIO STATUS AS OF JUNE 30, 2013

As of June 30, 2013, CalSTRS Private Equity has committed $696.4 million to private equity investments in the clean technology and clean energy sector as follows:

Investment Name	Year	Commitment ($Millions)	Type	Comments
Co-investment #1	2005	$30.0	Co-investment	Start-up company provides financing to small-scale alternative energy projects throughout the U.S.
NGEN Enable Technologies Fund II	2005	$15.0	Venture Capital Fund	Materials sciences focus; head-quartered in Santa Barbara.
VantagePoint Cleantech Partners	2006	$15.2	Venture Capital Fund	New practice group for longtime venture capital partner of CalSTRS; headquartered in San Bruno.
Craton Equity Investors I	2006	$30.0	Venture Capital Fund	Los Angeles-based firm specializing in clean technology growth companies.
Carlyle-Riverstone Renewable Energy Infrastructure Fund	2006	$50.0	Buyout Fund	Specialty product for mainline energy investment firm. Finances renewable energy projects globally but primarily in the U.S.
Hg Renewable Power Fund	2006	$61.2	Buyout Fund	Specialty product for London-based buyout firm. Finances renewable energy projects, primarily wind assets in Europe.
Co-investment #2	2006	$12.5	Co-investment	Company installs and operates facilities to convert landfill gas to electrical power.
USRG Power & Biofuels Fund II	2007	$60.0	Buyout Fund	Focus on small renewable power and biofuels projects in North America; headquartered in Santa Monica and White Plains, NY.
Co-investment #3	2008	$6.0	Co-investment	Waste to energy company that uses a proprietary plasma technology to convert municipal solid waste into an energy-rich fuel—syngas.
Riverstone/Carlyle Renewable & Alternate Energy Fund II	2008	$300.0	Buyout Fund	Focus on worldwide buyout and growth capital control investments involving renewable and alternative energy companies.
Co-investment #4	2010	$36.0	Co-investment	Company is a developer of utility scale solar thermal power plants.
Hg Renewable Power Fund II	2010	$65.5	Buyout Fund	Specialty product for London-based buyout firm. Finances renewable energy projects, primarily wind assets in Europe.
Craton Equity Investors II	2012	$15.0	Venture Capital Fund	Los Angeles-based firm specializing in clean technology growth companies.
Total		**$696.4**		

The current clean technology and clean energy portfolio accounts for 1.6 percent of the overall Private Equity portfolio in terms of total dollars committed. About 80 percent of the current clean technology and clean energy portfolio is committed to buyouts and the remaining 20 percent is committed to venture capital. Co-investments, which are additional investments CalSTRS makes alongside an existing manager's investment, account for 12.1 percent of the overall clean energy/ technology portfolio.

In the past year, staff made one new investment in the Proactive Fund—Craton Equity Investors II, for a commitment of $15 million.

Portfolio Performance

(Data as of March 31, 2013 and cash-flow adjusted as of June 30, 2013)

As of June 30, 2013, the average age of the underlying investments in the clean technology and clean energy portfolio is approximately 5.7 years. Approximately 80.2 percent of total commitments have been called to date, with about 8.3 percent called within the last year. The majority of the remaining uncalled capital is in recent buyout funds that are still in their investment period.

80.2%

of total commitments have been called to date.

Approximately 29 percent of the investment cost ($162 million) has been realized. Similar to the last annual reporting period ending June 2012, approximately 67 percent of total realizations have come from our investments in buyout funds and the remaining 33 percent from venture capital funds. Since June 2012 we have received additional distributions of $32.4 million which are attributed to: Hg Renewable Power Partners I ($29.5 million; RidgeWind, as discussed earlier in "A Company in the Portfolio" section of this report), Riverstone/Carlyle Renewable and Alternative Energy II ($2.8 million), and USRG Power and Biofuels II ($0.1million).

As shown in the table below, buyout portfolio performance remained relatively flat and venture capital portfolio performance declined during the 12-month period ending June 30, 2013.

CALSTRS CLEAN TECHNOLOGY AND CLEAN ENERGY PORTFOLIO PERFORMANCE COMPARISON: JUNE 2012–JUNE 2013

Clean Technology /Energy Portfolio—Multiple of Cost		
	June 30, 2013	June 30, 2012
Venture Capital	0.97x	1.13x
Buyout	1.00x	1.03x

As of June 30, 2013, the buyout and venture capital portfolios, are both valued near cost. This performance can be further segmented by funds that are past their investment period versus relatively younger funds that are still in their investment period. It is important to note that total capital commitments before and after 2008 is approximately 60/40, implying more than half the portfolio is still relatively young.

The more mature funds, raised prior to 2008, are currently valued at 0.82 times cost. The majority of the pre-2008 commitments went to venture capital funds, which in general have performed below expectations across all sectors. Unlike most other sectors, which have recovered since the recession, the CleanTech sector continues to be lackluster. Staff believes there is potentially remaining value yet to be realized in some of the portfolio companies and expects further recovery on a multiple of money basis, however, the IRR may end up below expectations.

Funds raised after 2008 are still in the investment period and are currently valued at 1.1 times cost. Approximately 88 percent of these investments are in buyout funds, which engage in several value creation initiatives that generally take time to reflect in terms of valuation increases. Staff expects the performance of this portfolio will improve as these investments mature.

3. REAL ESTATE SUSTAINABLE RETURNS PROGRAM

The goal of the CalSTRS Real Estate Green Program is to increase the risk-adjusted returns by incorporating conservation and sustainability in the development and management of the Real Estate portfolio.

STEPS TO SUSTAINABLE RETURNS

1	Incorporate conservation and sustainability into the planning cycle for the existing portfolio.
2	Establish benchmarks to track energy use, develop capital improvement plans, make energy efficiency upgrades and measure the benefits by reduced consumption of energy. By reducing resource consumption, value is added to the portfolio.
3	Include sustainability measures in investment decisions, including new development projects.
4	Practice conservation and sustainability within the CalSTRS-occupied facilities.

PROGRAM SUMMARY

Incorporate conservation and sustainability into the planning cycle for the existing portfolio.

In 2003 CalSTRS Real Estate staff directed all separate account investment managers to include a "Conservation/Sustainability Assessment" in their annual planning and budgeting process. The goal was to enhance value, create awareness and become more socially responsible investors. The planning process challenges managers to assess strategies relating to "green buildings," which are defined as "a structure that is designed, built, renovated, operated or reused in an ecological and resource-efficient manner."

While staff encourages green-related programs in the planning/budgeting process, all capital expenditures must be supported by appropriate return on investment measures and payback periods. A detailed list of separate-account, building-specific green projects is available upon request.

Establish benchmarks to track energy use, develop capital improvement plans, make energy efficiency upgrades and measure the benefits by reduced consumption of energy. By reducing resource consumption, value is added to the portfolio.

THE RATING SYSTEMS: ENERGY STAR AND LEED

In 2005 CalSTRS entered into a partnership with the EPA's Energy Star® program. Energy Star is widely accepted and used by leaders within the real estate industry. This partnership has provided CalSTRS with a tool to take control of energy use by providing the best information and resources for improving energy and environmental performance. More specifically, the partnership has provided CalSTRS with a tracking and audit tool to benchmark and measure energy consumption.

Energy Star, a voluntary labeling program for commercial and industrial buildings, is sponsored by the U.S. Department of Energy and the U.S. Environmental Protection Agency (EPA), and managed by the EPA. It uses a scale of 1–100 to rate the relative energy performance of new and existing buildings. The rating, which is certified by a professional engineer, is based on the amount of energy the building uses over a 12-month period (as evidenced by utility bills), the amount of CO_2 it emits, the nature and intensity of its occupancy, and its location. A score of 75 or more qualifies a building for an Energy Star label. This means the building is in the top 25 percent of like structures in energy efficiency for the year rated.

82%

of CalSTRS' separate-account office buildings are Energy Star-certified and ranked in the top quartile of energy-efficient buildings.

Energy Star Rating System Results

As of June 30, 2013, 82 percent of CalSTRS' separate account office buildings are Energy Star certified and ranked in the top quartile of energy-efficient buildings.

While the percentage of buildings certified has declined since last year, the number of certified buildings has increased. The decrease in percentage certified is because more buildings have been added to the CalSTRS portfolio.

ENERGY STAR RATING SYSTEM RESULTS

Report Date	Number of Separate Account Properties	Number of Buildings with an Energy Star Rating at or above 75	Percentage of Buildings with an Energy Star Rating at or above 75
2007	28	13	46%
2008	28	22	79%
2009	28	23	85%
2010	33	28	85%
2011	31	28	90%
2012	28	26	93%
2013	33	27	82%

Note: 82 percent of buildings have achieved a 75 or greater rating and the Energy Star label as of June 30, 2013.

The LEED Certification Green Building Rating System

The LEED, Leadership in Energy and Environmental Design, Green Building Rating System is the nationally accepted benchmark in the U.S. for the design, construction and operation of high performance green buildings. Established by the U.S. Green Building Council, LEED addresses different types of development with distinct rating systems, among them LEED for New Construction and Major Renovation, LEED for Commercial Interiors, and LEED for Existing Buildings: Operations and Maintenance.

The LEED rating systems and the four levels of LEED recognition—Certified, Silver, Gold and Platinum—reflect projected or actual performance beyond certain prerequisites in five critical areas of environmental sustainability—sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

The rating systems for the various types of development (and from property to property) require and reward somewhat different technologies and strategies and give different relative weight to the sustainability categories, as well. Consistently, however, almost 50 percent of the points are at stake in the areas of energy and water conservation.

The following table displays the CalSTRS assets in the separate account portfolio that have achieved the LEED certification as of June 30, 2013. The number of LEED buildings in the CalSTRS portfolio grew from 22 last year to 24 this year. The percentage of buildings with LEED certification decreased from 79 percent last year to 73 percent this year, but that is attributable to an increase in the total number of buildings in the portfolio.

THE LEED CERTIFICATION GREEN BUILDING RATING SYSTEM

Report Date	Number of Separate Account Properties	Number of Buildings with LEED Certification	Percentage of Buildings with LEED Certification
Fall 2007	28	0	0%
Fall 2008	28	1	4%
Fall 2009	28	9	32%
Fall 2010	33	13	39%
Fall 2011	31	22	71%
Summer 2012	28	22	79%
Summer 2013	33	24	73%

The number of LEED buildings in the CalSTRS portfolio grew from **22** last year to **24** this year.

4. FIXED INCOME GREEN PROGRAM

In keeping with CalSTRS' commitment to manage risks and create opportunities from climate change, as well as other global sustainability issues across the portfolio, an update on key metrics and issues affecting the Fixed Income unit follows.

Program Summary

As discussed previously, the CalSTRS Fixed Income unit continues to screen and monitor its holdings for companies involved with sustainability initiatives. As more companies accept the global warming thesis and realize the potential for cost savings in their organizations, the adoption of sustainability architecture as part of a company's business operations becomes more commonly observed and accepted in the marketplace. Good business practices both lead and follow sustainability issues for many companies. The initiatives do not have to be large in scale. Small initiatives from other industry leaders get noticed and have led to changes in a competitors approach to sustainability and green initiatives.

Green Bond Portfolio

The Fixed Income unit continues to purchase green bonds as part of its investment grade portfolio when both the issuer and CalSTRS' needs align. The Fixed Income unit currently holds a total of $25 million green bonds. Green bond proceeds are set aside and accounted for separately by participating agencies. There are currently three agencies issuing green bonds in which we are investors: the World Bank through the International Bank for Reconstruction and Development; the International Finance Corporation; and the Export Import Bank of Korea. Investors like CalSTRS receive periodic updates on projects and their progress.

In 2008 the World Bank launched the Strategic Framework for Development and Climate Change to help stimulate and coordinate public and private sector activity to combat climate change. The World Bank green bonds are part of this framework. An example of an ongoing project with green bond proceeds sponsored by the World Bank is the Integrated Forestry Development Project for China. Though China has increased forest cover to 38 percent of the county's territory, it is not enough to protect the country from increasing soil and water erosion, reduce atmospheric pollution, prevent desertification or provide for animal and plant habitats.

The project will support the development of additional forest cover and shelter belts in areas susceptible to erosion and will help supplement the incomes of forest dependent rural communities. A second example is the Tunisia Second Water Sector Investment. The goal of this project is to promote a more efficient use of irrigation water and drinking water supply. By the end of the project, approximately 25,000 hectares with irrigation and drainage systems should be rehabilitated and 10,000 households supplied with new drinking water service.

IFC projects include hydro power plants and energy efficiency improvements around the world. An example of an ongoing project is La Confluencia Hydro Project near Santiago, Chile. The hydro water plant is a 158 megawatt run-of-river hydroelectric power plant using both the river and collected water to generate electricity. A second project includes paper plants in India, JK Paper Ltd. Through loans for system improvements, JK Paper was able to save 10 million kilowatt hours of electricity, 20 thousand tons of CO_2 equivalent and 1.5 million cubic meters of water.

In June 2013 Solar Star Funding, LLC, a wholly-owned subsidiary of Berkshire Hathaway's MidAmerican Energy Holdings Co., issued $1 billion in secured senior notes. Solar Star is a 579 megawatt photovoltaic generating facility currently under construction in two California counties, Los Angeles and Kern counties. When completed in 2015, Solar Star will sell 100 percent of its output to Southern California Edison under 20-year power purchase agreements. Solar Star was bought from SunPower Corporation in January 2013, and SunPower will remain responsible for the construction and operation of the facility.

The Fixed Income unit currently holds a total of $25 million green bonds

Though not technically a green bond, Solar Star will help Southern California Edison reach its renewables portfolio standards set by California Legislature. Due to strict standards in California, and the announced shutdown of nuclear capacity from the San Onofre Nuclear Generating Station, Moody's Investors Service believes Solar Star will be a "long-term strategic electric generation asset for Southern California Edison." To date, Solar Star is the largest single project bond financing ever completed for a solar project. The Fixed Income unit bought and holds $5 million of the issuance.

5. INFLATION SENSITIVE

The CalSTRS Infrastructure Program targets essential service assets that primarily are operating and cash generating. Some late-stage development assets are considered per policy. The side letter of a fund's closing documents specifies that the manager is required to consider the CalSTRS 21 risk factors. The fund documents also encourage the adding of green features and technologies to new builds and existing assets. As part of the current infrastructure portfolio, there are solar, wind, hydro, coal to gas conversion and other energy efficiency-based assets. A more detailed description of portfolio assets was provided previously and additional information follows.

First Reserve Energy Infrastructure Fund

First Reserve manages its funds with the primary obligation to maximize the value of its holdings for the benefit of First Reserve's investors. First Reserve understands that a broad range of factors may be relevant in assessing whether particular investments may be additive or detrimental to this objective. These non-financial, ESG considerations are taken into account to the extent they affect an investment's risk and return profile. This approach emanates from First Reserve's core values and the express goals of its investors.

In December 2011 the First Reserve Energy Infrastructure Fund purchased a 50-percent stake in Renovalia Reserve, a portfolio of onshore wind farms. As of March 31, 2013, First Reserve has invested a total of $153 million into SunEdison Reserve, a portfolio of photovoltaic power generation facilities.

SUNEDISON RESERVE

	FREIF 1 (in millions)	CalSTRS* (in millions)
Invested Capital:	$153.0	$18.7
Realized Value:	$32.4	$4.0
Current Value:	$173.0	$21.1
Total Value:	**$205.4**	**$25.1**

*As of March 31, 2013. Based on CalSTRS' 12.22 percent of FREIF 1's total commitment.

RENOVALIA RESERVE

	FREIF 1 (in millions)	CalSTRS* (in millions)
Invested Capital:	$78.5	$9.6
Realized Value:	$1.6	$0.2
Current Value:	$88.3	$10.8
Total Value:	**$89.9**	**$11.0**

*As of March 31, 2013. Based on CalSTRS' 12.22 percent of FREIF 1's total commitment.

Meridiam Infrastructure

Meridiam was founded in 2006 with a vision of investing in public infrastructure projects on a long-term, responsible and sustainable basis. ESG has always been at the core of Meridiam's investments. Meridiam believes that ESG consideration allows it to better manage risks and create value over the long term. The importance of ESG issues to Meridiam is reflected in its Sustainable Development Charter which articulates both ESG policy and its implementation.

The contract for Meridiam's Long Beach Court House project was signed in December 2010, and the contract for the Montreal University Hospital project was signed in May 2010.

LONG BEACH COURT HOUSE

	Fund (in millions)	CalSTRS* (in millions)
Invested Capital:	$ 29.4	$ 3.4
Realized Value:	—	—
Current Value:	$ 49.6	$ 5.7
Total Value:	**$ 49.9**	**$ 5.7**

*As of June 30, 2013. Based on CalSTRS' 11.5 percent of Meridiam's total commitment.

MONTREAL UNIVERSITY HOSPITAL RESEARCH CENTRE

	Fund (in millions)	CalSTRS* (in millions)
Invested Capital:	$ 12.5	$ 1.4
Realized Value:	—	—
Current Value:	$ 20.6	$ 2.4
Total Value:	**$ 20.6**	**$ 2.4**

*As of June 30, 2013. Based on CalSTRS' 11.5 percent of Meridiam's total commitment.

Balfour Beatty Infrastructure Partners

Balfour Beatty Infrastructure Partners is a signatory to the Principles for Responsible Investment and seeks to address ESG issues and compliance through the investment management lifecycle. The investment team is required to address ESG matters through the evaluation, recommendation, management and disposal stages of an investment.

The McEwan Power investment, a portfolio of three operational U.K. ground mounted solar parks, was acquired in March 2013.

MCEWAN POWER

	Fund (in millions)	**CalSTRS*** (in millions)
Invested Capital:	$44.3	$12.0
Realized Value:	—	—
Current Value:	$44.3	$12.0
Total Value:	**$44.3**	**$12.0**

*As of June 30, 2013. Based on CalSTRS' 27.09 percent of BBIP's total commitment.

ISSUES, OUTLOOKS & INITIATIVES

Fixed Income—Report on Legislative Activity

In last year's report, staff reported that the EPA finalized the Cross-State Air Pollution Rule (CSAPR), with the first phase set for January 1, 2012. However, on December 30, 2011, the U.S. Court of Appeals for the D.C. Circuit issued its ruling to stay the CSAPR pending judicial review. On August 21, 2012, a federal appeals court overturned the federal rule with a 2 to 1 ruling. The panel of the U.S. Court of Appeals for the District of Columbia said the EPA had exceeded its authority and imposed standards that were too strict.

This judicial decision was considered a victory for coal companies and utilities. On October 5, 2012, the EPA asked for a full-court review of the decision. On June 24, 2013, it was announced the U.S. Supreme Court agreed to hear arguments and rule during the nine-month term that begins in October 2013.

The Obama Administration would like to reinstate the rule as it believes the rule could prevent up to 34,000 premature deaths and produce up to $280 billion a year in economic benefits. CSAPR would cap emissions of sulfur dioxide and nitrogen oxides in 28 states (eastern two-thirds of the country) whose pollution blows into neighboring jurisdictions. Though it could still be costly for many utilities, over the past few years some utilities have begun retiring coal plants or installing scrubbers that help filter pollutants. Staff will continue to monitor events surrounding the CSAPR.

Private Equity—Current Industry Overview & Future Investment Outlook*

Overall 2012 was a slow year for both private equity fundraising and deal activity in the cleantech sector. Cleantech deal activity in 2012 represented a 21 percent decrease in the number and a 44 percent decrease in aggregate value of cleantech deals in comparison to 2011. On the fundraising side, there was a noticeable slowdown in 2012, with the amount of capital raised falling by more than half compared to 2011 ($2.8 billion raised in 2012 versus $6.1 billion raised in 2011). This significant decrease can largely be attributed to the continued adverse impact of the low natural gas prices, policy uncertainty within the cleantech sector, and reduced support for feed-in tariffs for renewable energy,

CSAPR would cap emissions of sulfur dioxide and nitrogen oxides in 28 states.

especially in Europe. Staff expects this decline to continue over the course of 2013, as the fundraising environment is expected to remain tough.

Across the globe, North America continued to be the most prominent region for cleantech investment in 2012, accounting for 64 percent of all cleantech deals in the last two years. European cleantech deal activity declined in 2012. Asia was a mixed bag. Although the greatest proportion of capital raised for funds in 2012 was focused on Asia, the region saw a significant decline in deal value throughout the year, from $1 billion in 2011 to $200 million in 2012. This mismatch is an indication of oversupply of capital in Asia which staff believes can be risky considering the slowdown in Asian economies.

Another significant trend that has been observed in the cleantech industry in recent years is the proportional decline in growth capital and venture capital-backed deals, and an increase in the number of buyout-backed deals, which is likely to continue as the sector continues to mature. About 17 percent of all cleantech deals were represented by buyout investments in 2012 compared to 9 percent in 2009. Private Equity's cleantech portfolio is currently 80 percent buyout centric, which makes it well positioned to benefit from this trend of increased deal activity vis-à-vis potential exit opportunities for mature investments.

Based on the investment environment just highlighted, we continue to carefully review the fund offerings and focus on the risk-reward of each investment opportunity on a case-by-case basis and alongside the geography, sector and strategy diversification needs of the overall private equity portfolio.

*Commentary adapted from Preqin Special Report: Cleantech, February 2013

Real Estate—Looking Forward

There is a continuing trend among cities to pursue and adopt energy disclosure legislation. During the past six months, Boston and Philadelphia have enacted such legislation and Chicago has taken the first steps toward doing so, with final approval of disclosure requirements expected by the end of the third quarter of 2013. Staff expects that calendar year 2014 and beyond will continue to be active as several other major cities are considering similar legislation and task forces have been organized.

Most of the legislation is aimed at larger users, but the legislation will likely impact all asset classes and types, including large residential projects. Most of the legislation is aimed primarily at energy use calculations and some form of disclosure, either fully public or on demand at the time of a proscribed event such as sale, financing or significant lease. Some cities are also considering following the New York City model which also proscribes certain actions, such as retro-commissioning, energy audits and lighting upgrades.

Staff expects to continue following future developments concerning city adoption of energy disclosure legislation and to be considering how such legislation might impact the CalSTRS Real Estate portfolio.

Corporate Governance—Energy Efficiency Engagement

Building on last year's successful campaign described on page 23 of this report, during the 2013–14 fiscal year the Corporate Governance unit intends to continue its efforts of engaging public equity companies on their energy use management efforts. Energy efficiency allows companies to improve their bottom lines through operational cost reductions while simultaneously reducing their carbon footprint—which increases their corporate citizenship.

For the 2013–14 year, staff will be focusing on a more concentrated group of companies that are in high energy use sectors and are not disclosing energy use management efforts. CalSTRS asked one of its data providers, Trucost, to analyze the CalSTRS Russell 1000 Portfolio and determine which companies had the highest energy use and the lowest robust disclosure surrounding energy use management. Trucost, a leading environmental data provider with a 12-year history of working with investors on environmental issues, used its proprietary Environmental Register of corporate natural impacts to do their analysis.

With the help of Trucost, staff has identified 14 companies in high energy use sectors that are not adequately disclosing energy efficiency efforts. Staff has sent letters to these companies requested a dialogue on their energy use.

Companies that do not respond to staff's engagement requests, or are not willing to consider efficiency initiatives, will likely receive shareholder proposals calling for energy use management reports.

GREEN TEAM STRATEGIC PLAN

In its 2012 report, the CalSTRS Green Team presented goals for the next fiscal year:

1	Increase knowledge of environmental risk management techniques and environmental-themed investment opportunities.
2	Integrate environmental risk factors into external manager and consultant procurement processes and into core manager monitoring and evaluation.
3	Increase allocation to existing environmental-themed investments and consider allocations to new environmental-themed investments.
4	Integrate environmental considerations into asset allocation considerations.

Green Team members feel that goal number one was substantially accomplished. During the past fiscal year, staff brought in several environmental experts to discuss risk management and investment opportunity capture. Representatives from MSCI, Bloomberg and Mercer Consulting all met with Green Team staff during fiscal year 2012–13.

Additionally, Green Team members sponsored Investments branch ESG seminars that detailed the environmental risks investors should consider, how these risks could impact investment value, and what investment opportunities might exist that help to manage environmental risk. Despite substantially achieving this goal, staff will continue to seek educational opportunities and work to grow its knowledge base.

While progress toward goal number two was made, Green Team members believe additional efforts in this regard are warranted. The CalSTRS Global Equity unit continued its external manager climate change survey and more investment managers made the 21 risk factors part of their due diligence considerations. However, more structured and uniform ESG analysis of managers across asset classes is anticipated for 2013–14. This is consistent with the *CalSTRS Business Plan for 2013–14,* which calls on staff to integrate and formalize the evaluation of the 21 risk factors across the portfolio.

Progress toward goal number three was significantly accomplished during fiscal year 2012–13. While commitments to investments in Global Equity, Fixed Income and Private Equity did not grow substantively, the Inflation Sensitive unit, through its infrastructure program, added several "green" investments to the CalSTRS Investment Portfolio. For fiscal year 2013–14, Green Team staff will consider additional green investments, adding those that meet CalSTRS' risk/return requirements.

After reviewing last year's accomplishments, Green Team members determined that progress toward goal number four was not achieved to any substantive degree. However, considering the long-term horizon associated with this goal, the lack of progress in integrating environmental considerations into the CalSTRS asset allocation processes is not surprising. Team members will continue to make this integration part of the goals for fiscal year 2013–14.

The Inflation Sensitive unit, through its infrastructure program, added several "green" investments to the CalSTRS Investment Portfolio.

CONCLUSION

Consistent with CalSTRS' commitment to manage the risks and create opportunities from climate change and other global environmental issues across the CalSTRS Investment Portfolio, the Green Initiative Task Force will continue to work at identifying environmentally focused strategies intended to enhance the risk-adjusted returns of the overall portfolio. We will continue to search for new investment opportunities and provide leadership in this area, maintaining our position at the front of the "green" movement.

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