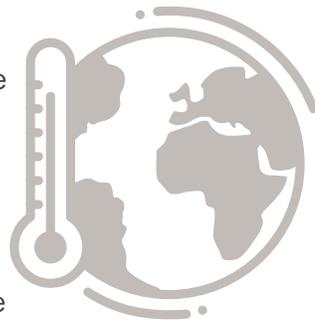


How CalSTRS Is Participating in the Transition to a Low-Carbon Economy

The latest report from the Intergovernmental Panel on Climate Change (IPCC) underscores the impact of human activities on greenhouse gas emissions and global warming. The consequences of climate change are documented



through more extreme weather, rising sea levels and diminished Arctic ice. California's pattern of devastating droughts and fires brings the consequences closer to home for CalSTRS.

The IPCC report recommends limiting the increase in global temperatures to 1.5 degrees Celsius above pre-industrial levels. According to key findings, avoiding the worst impacts of climate change will ease the pathway to sustainable development and a more equitable society. Efforts to reduce emissions are already underway. The Paris Agreement, ratified by 184 nations in November 2016, mobilized world leaders in a global endeavor to transition to a low-carbon economy.

The links between climate change, business and investment are becoming increasingly evident. Climate change presents both:

- Physical risks: Risks that arise from the physical impacts of a changing climate.
- Transition risks: Risks that arise from the transition to a low-carbon economy, such as policy shifts and technological transformations.

Significant investment opportunities also exist in helping the global economy both mitigate and adapt to a changing climate.

As a global institutional investor with a focus on the long term, CalSTRS recognizes that climate change presents a material and existential risk to society and the economy. We are committed to influencing public policies, engaging with the companies in our portfolio and investing to promote an orderly transition to a low-carbon economy that benefits all.

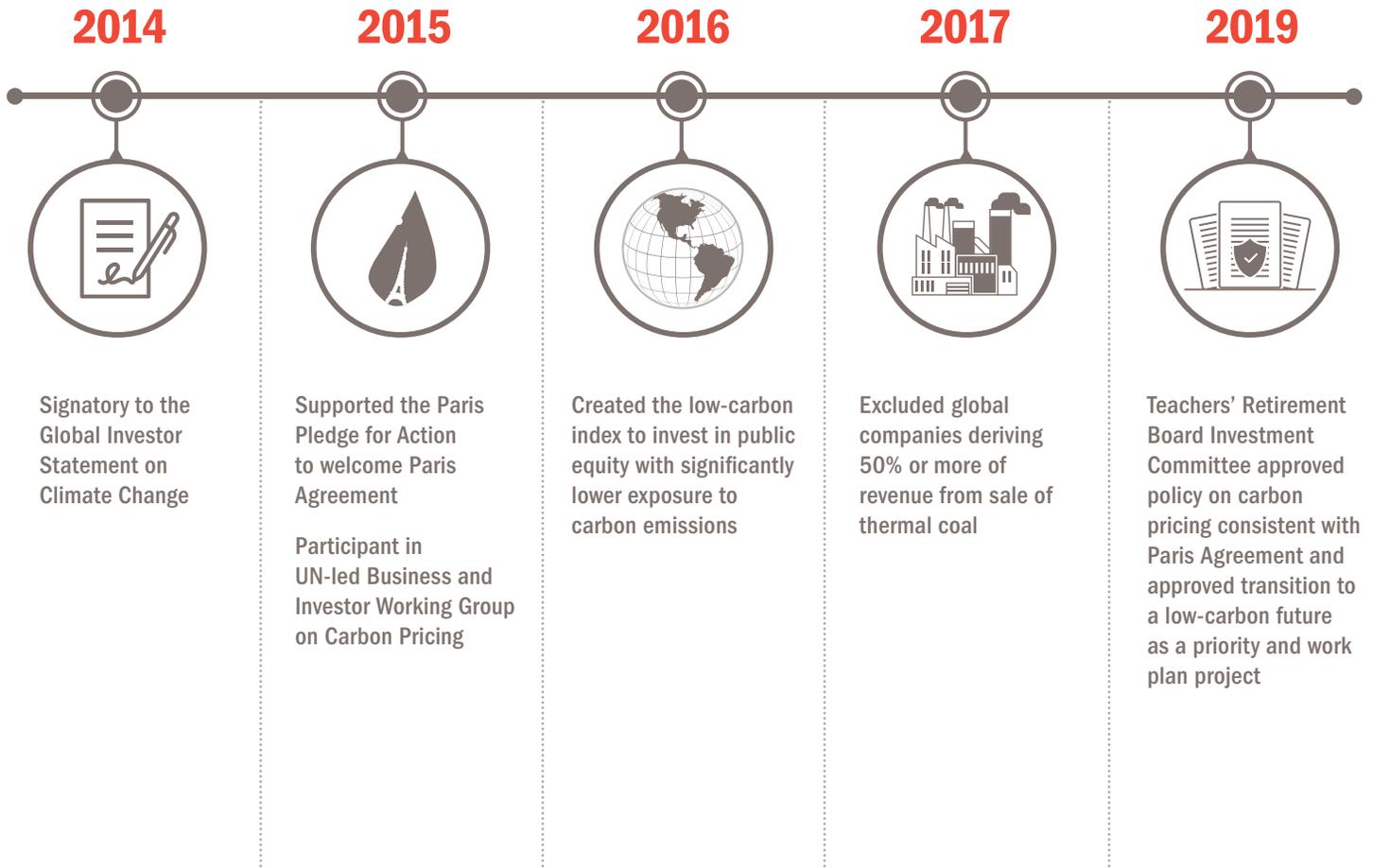
CalSTRS Board Approves Low-Carbon Transition Investment Policy

In May 2019, the CalSTRS Investment Committee took action to approve new policy language:

"We believe that how the world responds to the risks associated with climate change, as detailed by peer reviewed scientific reports, including those from the Intergovernmental Panel on Climate Change (IPCC), will materially impact the value of our investment portfolio. CalSTRS recognizes that public policies, technological advances and physical impacts associated with concerns about climate change are already driving the transition to a lower carbon economy. As a diversified global investor, we need to understand the transition's potential impacts and consider actions we can take to mitigate risk and identify related investment opportunities."

“As a diversified global investor, we need to understand the transition's potential impacts and consider actions we can take to mitigate risk and identify related investment opportunities. **”**

CalSTRS Engages Policy Makers, Financial Markets and Companies



CalSTRS Supports Carbon Pricing

The CalSTRS Investment Committee has approved policy language regarding its support for a stable and clear carbon-pricing framework that aligns with the Paris Agreement's goals of reducing global emissions. We believe it is important for global policymakers to hear this message from one of the world's largest pension funds. We recognize that finding politically acceptable ways to price pollution will drive consumer behavior, business strategy and investment flows. We also recognize the imperative that the low-carbon transition avoids exacerbating economic inequality and related geopolitical risks.



Playing a Leadership Role in the Climate Action 100+

CalSTRS works with more than 370 global investors who collectively manage more than \$41 trillion in assets under management to engage over 100 of the world's most significant greenhouse gas emitters to align their goals with the Paris Agreement. As a result of this coalition, to date:



Duke Energy, One of the largest U.S. utility companies, plans a 50% reduction in carbon emissions by 2030 and net zero emissions by 2050.



American Electric Power, one of the largest U.S. utility companies, set a goal to reduce carbon emissions by 70% by 2030 and 80% by 2050.



Glencore, the world's largest mining company, agreed to cap global coal production and reduce global emissions.



Maersk, the world's largest ocean shipping company, committed to net zero carbon emissions by 2050.



Shell, with operations in 70 countries and territories worldwide, committed to reduce emissions across its entire value chain.

Participating in the Task Force on Climate-Related Financial Disclosures (TCFD)

CalSTRS is engaging companies to adopt the recommendations of the TCFD to increase the availability of consistent climate-related financial risk disclosures. Better information helps investors price climate risk and reward climate innovation. There is significant positive momentum around the world with a growing number of companies reporting in alignment with the TCFD.

Identifying Low-Carbon Investment Strategies

- **Creating the CalSTRS Low-Carbon Index:**
We have invested more than \$2 billion in a public equity low-carbon index that is projected to have approximately 70% lower exposure to carbon emissions than a non-low-carbon index.
- **Investing nearly \$2 billion in sustainability focused strategies across the portfolio:**
Consistent with CalSTRS' Green Initiative Task Force Annual Report, we have increased our investments with partners that are experts in analyzing how sustainability-related trends, like the low-carbon transition, create investment risks and opportunities. For example, we have approximately \$288 million invested in green bonds and CalSTRS Inflation Sensitive asset class has \$364 million invested in solar, wind and other renewable power generation and LEED-certified assets. Our Private Equity group has a Clean Energy Portfolio with over \$500 million invested and in Real Estate, nearly 90% of CalSTRS' directly controlled office buildings are Energy Star certified and have achieved LEED certification.
- **Excluding global companies deriving 50% or more of their revenues from the sale of thermal coal.**

Next Steps for CalSTRS

The Teachers' Retirement Board has determined that the low-carbon transition is an urgent priority. CalSTRS is focused on:

- **Building consensus** among the board and staff about how the low-carbon transition will impact CalSTRS and its investment portfolio.
- **Analyzing the “transition readiness”** of our portfolios to deepen our understanding of both physical climate-related issues and transition issues across different asset classes, geographies and strategies.
- **Expanding our stewardship activities** through public policy engagement, corporate engagement and proxy voting to support an orderly transition aligned with the Paris Agreement and the findings of the IPCC. This recognizes our considerable influence as a large investor to influence public policy and corporate action.
- **Continuing our commitment** to reporting and communicating with our partners, peers, stakeholders, legislators.

CalSTRS Resources



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