June 24, 2019

Henry T. Jones, President, CalPERS Board of Administration; and board members
California Public Employees' Retirement System
Cc: Ben Meng, Chief Investment Officer
Beth Richtman, Managing Investment Director for Sustainable Investments

Sharon Hendricks, Board Chair, CalSTRS Teachers' Retirement Board; and board members
California State Teachers' Retirement System
Cc: Christopher Ailman, Chief Investment Officer
Kirsty Jenkinson, Director of Corporate Governance
Grant Boyken, Public Affairs Executive Officer

Re: Reporting on climate-related financial risk, in compliance with SB 964

Environment California and Fossil Free California, sponsors of Senate Bill 964, have considered the reporting requirements in the bill, which was signed by Governor Jerry Brown on September 23, 2018. We respectfully present our recommended reporting parameters for your initial report, due by January 1, 2020. We believe the approach we propose responds to the intent of the Legislature, meets the letter of the law, and as fully as possible, describes climate-related financial risk to the fund and to the future security of fund beneficiaries. The triennial reporting schedule proposed by CalSTRS makes the first report especially important, as it will inevitably be a benchmark for future reports.

SB 964 requires CalPERS and CalSTRS to report on climate-related financial risk in general and in specific, both by describing the "alignment of the fund with the Paris climate agreement and California climate policy goals[1] and the exposure of the fund to long-term risks," and by identifying and analyzing the funds' portfolio holdings subject to climate-related financial risk. The law also requires reporting on shareholder engagement activities (proxy voting and other initiatives) the funds undertake with identified companies, and results of those actions.

The definition of climate-related financial risk in SB 964 is fully consonant with the Task Force on Climate-related Financial Disclosures' (TCFD's) report and recommendations for risk disclosure.

We understand that CalPERS intends to report "as a financial institution," according to the guidance provided in *Implementing the Recommendations of the Task Force on Climate-related*

[1] California's climate policy goals are codified in our state's Renewable Portfolio Standards Program (Senate Bill 1078, 2002 and SB 100, 2018); the Global Warming Solutions Act of 2006 (Assembly Bill 32, 2006 and SB 32, 2016); the Clean Energy and Pollution Reduction Act of 2015 (SB 350, 2015); and others.

Financial Disclosures.[2] We support this intention, and use of the "Metrics and Targets" described in the document.[3] In drafting SB 964, however, the legislature intended that CalPERS and CalSTRS report on "the climate-related financial risk of its public market portfolio," which the authors of the bill understood to include discussion of specific holdings, by name. There is precedent for this in both CalSTRS' and CalPERS' reports on compliance with SB 185 (chaptered in 2015), which requires the funds to divest from certain thermal coal companies.[4]

In the interest of consistency and maximum utility, we recommend that you base your analysis of holdings at risk on the risk categories, sectors, and industries identified by the TCFD as having "the highest likelihood of climate-related financial impacts,"[5] and follow the TCFD's "Supplemental Guidance for Non-Financial Groups"[6] for these entities, noting the Evidence of Financial Impact table (Figure 5, page 6).

As you know, the TCFD divided climate-related financial risk into transition risk and physical risk. **Transition risk** threatens companies with precipitous loss in value as we move as quickly as we can to a low-carbon economy. Transition risk includes **regulatory risk** as governments act to restrict greenhouse gas emissions; **litigation risk** as states, municipalities, and people sue polluters for their role in warming the planet and, in some cases, their deception about the threat of global climate change; **technology and market risk** as emerging technologies transform lives and commerce; and **reputational risk** as people turn away from companies, industries, and utilities that they blame for the consequences of warming. We add to these categories **stranded asset risk** of significant and precipitous loss of company value—either when governments act to keep carbon reserves in the ground to protect the planet from warming, or when physical infrastructure assets are abandoned or de-commissioned and site remediation becomes the responsibility of either the company or taxpayers.

Physical risks to investments are associated with changing weather patterns, sea level rise, higher temperatures, drought, and the profound environmental changes we are already witnessing, as well as acute events such as fires, hurricanes, and floods.

We support the Science-based Targets Initiative's guidance for financial institutions' setting targets, defining actions in support of those targets, and reporting on both progress and

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[2] *Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures*, available at https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-TCFD-Annex-062817.pdf

[3] Ibid., pp.16-17

[4] CalSTRS' reports on domestic and international coal holdings and divestment are available at https://resources.calstrs.com/publicdocs/Page/CommonPage.aspx?PageName=DocumentDownload&Id=04b1288b-2312-412c-8c0d-28c32c82293e and http://resources.calstrs.com/publicdocs/Page/CommonPage.aspx?PageName=DocumentDownload&Id=56536822-6598-41f8-a6d4-7f1100e3b32f. CalPERS' report is available at https://www.calpers.ca.gov/docs/board-agendas/201708/invest/item04f-01.pdf.

[5] *Final Report Recommendations of the Task Force on Climate-related Financial Disclosures*, 2017, p. 16. Available at https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-2017-TCFD-Report-11052018.pdf

[6] *Implementing the Recommendations* (see link in footnote no. 2), p. 46ff.

evidence of impact on the real economy. This initiative is now under development, but guidance may be published before the reporting deadline.

The table below shows the TCFD's categorization of sectors and industries and the reporting approaches we suggest. We have added a sector, "Banks and Financial Services," because we believe financial institutions' association with companies that contribute significantly to greenhouse gas emissions is material to the stability of those institutions.

<table>
<tr><th>Sector/Industry</th><th>Reporting approach</th></tr>
<tr><td>Energy</td><td rowspan="4">For each company in the sector:
Holdings as of reporting date, showing book value, market value, and the fund's holdings as a percentage of company ownership
Nature of identified risk
Estimated emissions (specifically including Scope 3 emissions) as shown in the Carbon Majors Database (2017)[7] or other cited source
Status of disclosures per TCFD guidance
The fund's shareholder engagement activities in 2019 including descriptions of resolutions sponsored, resolutions supported, acceptance or rejection of resolutions, and proxy votes; and non-proxy engagements</td></tr>
<tr><td>Oil and gas</td></tr>
<tr><td>Coal</td></tr>
<tr><td>Electric Utilities</td></tr>
<tr><td>Transportation</td><td rowspan="7">For the sector as a whole:
The fund's identification and assessment of risks and opportunities arising from climate change, and the sector's role in California's transition to a low-carbon economy
For companies in each industry:
Holdings as of reporting date, showing book value, market value, and the fund's holdings as a percentage of company ownership
Emissions (Scopes 1 and 2; Scope 3 if available)
Status of disclosures per TCFD guidance
Shareholder engagement activities and results</td></tr>
<tr><td>Air freight</td></tr>
<tr><td>Passenger air transportation</td></tr>
<tr><td>Maritime transportation</td></tr>
<tr><td>Rail transportation</td></tr>
<tr><td>Trucking services</td></tr>
<tr><td>Automobiles and components</td></tr>
<tr><td>Materials and buildings</td><td rowspan="3">For the sector as a whole:
The fund's identification and assessment of risks and opportunities arising from climate change, including regulatory risk, asset retirement obligation risk, and risk of stranded assets in REIT investments</td></tr>
<tr><td>Metals and mining</td></tr>
<tr><td>Chemicals</td></tr>
</table>

[7] Carbon Disclosure Project and Climate Accountability Institute, *The Carbon Majors Database, CDP Carbon Majors Report 2017*, available at https://b8f65cb373b1b7b15feb-c70d8ead6ced550b4d987d7c03fcdd1d.ssl.cf3.rackcdn.com/cms/reports/documents/000/002/327/original/Carbon-Majors-Report-2017.pdf

Sector/Industry	Reporting approach
Construction materials Capital goods Real estate management and development	**For companies in each industry:** • Holdings as of reporting date, showing book value, market value, and the fund's holdings as a percentage of company ownership • Emissions (including Scope 3 emissions) • Status of disclosures per TCFD guidance • Shareholder engagement activities and results
Agriculture, food, and forest products Beverages Agriculture Packaged foods and meats Paper and forest products	**For the sector as a whole:** The fund's assessment of risks and opportunities arising from climate change, including regulatory risk and risks associated with drought and higher temperature **For companies in each industry:** • Holdings as of reporting date, showing book value, market value, and the fund's holdings as a percentage of company ownership • Emissions (including Scope 3 emissions) • Status of disclosures per TCFD guidance • Shareholder engagement activities and results
Banks and Financial Services	**For each entity in this sector:** • Holdings as of reporting date, showing book value, market value, and the fund's holdings as a percentage of ownership • The institution's loans and investments in fossil fuel industry companies and infrastructure projects • The institution's participation in ongoing efforts to quantify banks' climate-related financial risk[8] • Shareholder engagement activities and results

We offer this approach and outline in the expectation that CalPERS' and CalSTRS' reporting in response to SB 964 will provide essential tools as well as a model for other funds and institutional investors confronting the reality of finance-related climate risk. Further, adoption of a robust reporting protocol by the two most influential public pension funds in the nation will provide companies with clear incentives to report adequately in this space.

At this writing, legislators in several other states are considering introducing legislation similar to California's new statute. As ever, California must lead the way in climate action, and in climate-related financial strategies. We look forward to working with you to ensure a report that advances investors' and financial institutions' strategic planning for the future we will face together.

[8] See https://www.oliverwyman.com/our-expertise/insights/2018/apr/extending-our-horizons.html and https://www.ft.com/content/ce1d8ece-c19c-11e8-95b1-d36dfef1b89a

Thank you very much for your attention. If you have questions or would like to discuss the contents of this letter, please reach out to Janet Cox, janet@jwcox.com, or Lisa Anne Hamilton, lhamilton@ciel.org.

Dan Jacobson, State Director
Environment California

Deborah Silvey, Board President
Fossil Free California