

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

The Union of Concerned Scientists (UCS) is writing on behalf of our 75,000 supporters across California in support of robust climate-related financial risk disclosure by CalPERS and CalSTRS. UCS is a national science advocacy organization with an office in Oakland, California, working to advance solutions for climate change, renewable energy, clean transportation, and climate resilience in California, among other pressing issues. Our fossil energy accountability campaign strives to hold the fossil fuel industry accountable to emerging societal expectations for responsible action on climate change.

We have considered the language in California Senate Bill 964 and respectfully submit for your consideration the following recommended guidelines for the disclosure of climate risks related to the oil and gas industry. UCS's recommendations complement those offered by Fossil Free California and Environment California. We believe these proposals will strengthen the CalPERS and CalSTRS investment portfolios, respond to the intent of the legislature, and facilitate full disclosure of climate-related risks to the fund beneficiaries. As the initial report is due by January 1, 2020, and to be repeated on a tri-annual schedule, the first report will set an important benchmark in climate-related risks reporting for both CalPERS and CalSTRS, as well as for other pension funds across the country considering similar reports.

SB 964 requires CalPERS and CalSTRS to report on climate-related financial risks in general and in specific, both by describing the "alignment of the fund with the Paris climate agreement and California climate policy goals¹ and exposure of the fund to long-term risks". In order to be in alignment with the Paris climate agreement's goal of keeping global temperature increase well below 2 degrees Celsius (2°C) and striving to limit it to 1.5°C

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.

above pre-industrial levels, the fund should focus its identification and analysis of climate-related risks on portfolio holdings in the energy sector. The findings of the Intergovernmental Panel on Climate Change (IPCC) [Special Report on Global Warming of 1.5°C](#)² and the [4th National Climate Assessment](#)³ underscore the urgent need to reduce emissions to net-zero by mid-century—and burning fossil fuels for electricity, heat, and transportation is the largest source of global warming emissions from human activities.

The energy sector, as defined by the Task Force on Climate-related Financial Disclosures (TCFD) and encompassing the oil and gas, coal, and electric utility industries, is inextricably linked to climate change and holdings in this sector deserve an in-depth examination to accurately assess their climate-related risks. [Scientists can now quantify](#)⁴ the global warming emissions, global average temperature increase, and sea level rise attributable to the product-related emissions of particular fossil fuel companies.

These industries face a unique mix of transition risks, such as regulatory risks, market risks, and reputational risks, as well as physical risks to infrastructure due to sea level rise, higher temperatures, and acute weather events. Climate change represents a greater risk than the financial industry has seen before. The cost of climate disasters is rising exponentially as we see more frequent and severe weather events, and potential changes in public perception hold a reputational risk for companies involved in the energy sector. The rapid bankruptcy of PG&E after two years of wildfires is a sobering example of this climate-related risk in California.

Of the transition risks faced by this sector, the clearest financial risk to the funds will be from the potential carbon bubble, similar to the housing bubble of 2008. CalPERS and CalSTRS investments in the energy sector could have an outsized impact on the funds' bottom line in the event of a rapid transition to a low-carbon economy. Legislative and regulatory action to decarbonize the economy along with market gains by cheaper and cleaner sources of energy could make investments in companies with high greenhouse gas emissions a high-risk endeavor.

The fossil fuel industry is also deserving of scrutiny given its history of obscuring climate-related risks from investors. The New York Attorney General sued ExxonMobil in 2018, alleging that the company misled investors about the risks that climate change regulations posed to its business. Major fossil fuel companies that [UCS has examined](#)⁵ lack robust disclosure of climate-related risks and an increasing number of other large asset owners and money managers have shown concern about this issue.

² IPCC, 2018: Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [V. Masson-Delmotte, P. Zhai, H. O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W.

Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M. I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, T. Waterfield (eds.)]. In Press. Online at <https://www.ipcc.ch/sr15/>, accessed June 19, 2019.

³ USGCRP, 2017: Climate Science Special Report: Fourth National Climate Assessment, Volume I [Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 470 pp., doi: 10.7930/J0J964J6. Online at https://science2017.globalchange.gov/downloads/CSSR2017_FullReport.pdf, accessed June 19, 2019.

⁴ Ekwurzel, B., Boneham, J., Dalton, M.W. et al. *Climatic Change* (2017) 144: 579. Online at doi.org/10.1007/s10584-017-1978-0, accessed June 19, 2019.

⁵ Pinko, N., K. Mulvey, B. Ekwurzel, P. Frumhoff. 2018. The 2018 climate accountability scorecard: Insufficient progress by major fossil fuel companies. Cambridge, MA: Union of Concerned Scientists. Online at www.ucsusa.org/climate-accountability-scorecard-2018, accessed June 5, 2019.

Additionally, the fossil fuel industry is facing numerous lawsuits from California cities and counties seeking to recover the costs of climate damages and preparedness. Sea level rise is a critical issue for beachfront housing and infrastructure.⁶ The risks to California property and tax base throughout the coastal regions due to [sea level rise](#)⁷ is a significant and urgent issue that will have financial ramifications throughout the state. Major fossil fuel companies have also been named as defendants in a lawsuit filed by the Pacific Coast Federation of Fishermen's Associations seeking to hold them accountable for damage to the Dungeness crab fishery due to rising ocean temperatures.

The prospect that major fossil fuel companies will be held responsible for climate damages is a financial risk, and these companies also face serious reputational risks for [knowingly misleading](#)⁸ the public about the climate risks of their products for decades. A newly released nationally representative [survey](#)⁹ conducted by Yale University's Program on Climate Change Communications (YPCCC) and supported by UCS found that a majority of US residents—and nearly two-thirds of Californians—think fossil fuel companies should pay for some portion of global warming damages. The poll also found that more than seven in ten Californians distrust fossil fuel companies.

With these numerous and varied climate-related risks in mind, UCS puts forward the following disclosure recommendations.

For each company in the energy sector, please disclose the following risks in line with TCFD recommendations.¹⁰

Transition Risks – Policy & Legal

Estimated annual emissions, including from the end use of its products (Scope 3), following the methodology in the [Carbon Majors Database](#)¹¹ or other cited source

Anticipated reserves and resources at risk of not being profitably produced from the existing company portfolio and from future exploration in the event of global, federal, or state climate regulation in line with the Paris climate agreement's global temperature goal

Exposure to climate-related litigation, including liability lawsuits

⁶ Pacific Coast Federation of Fishermen's Associations, Inc. v Chevron Corporation, et al. 2018. Plaintiff Complaint. Online at: <https://www.sheredling.com/wp-content/uploads/2018/11/2018-11-14-Crab-Complaint-1.pdf>

⁷ Dahl, K., et al. 2018. Underwater: Rising seas, chronic foods, and implications for US coastal real estate. Cambridge, MA: Union of Concerned Scientists. Online at <https://www.ucsusa.org/sites/default/files/attach/2018/06/underwater-analysis-full-report.pdf>, accessed June 5, 2019.

⁸ City of Oakland and City and County of San Francisco v. B.P. P.L.C, Chevron Corporation, ConocoPhillips Company, ExxonMobil Corporation, and Royal Dutch Shell. 2018. Amicus Brief in Support of Plaintiffs. Online at http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2019/20190320_docket-18-16663_amicus-brief-2.pdf, accessed June 19, 2019.

⁹ Marlon, J., et al. 2019. A majority of Americans think fossil fuel companies are responsible for the damages caused by global warming. Yale Program on Climate Change Communications, June 19. Online at <https://climatecommunication.yale.edu/publications/majority-of-americans-think-fossil-fuel-companies-are-responsible-for-the-damages-caused-by-global-warming/>, accessed June 19, 2019.

¹⁰ Task Force on Climate-Related Financial Disclosures (TCFD). 2017. Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures. Online at <https://www.fsb-tcf.org/wp-content/uploads/2017/06/FINAL-TCFD-Annex-062817.pdf>, accessed June 5, 2019.

¹¹ Heede, R. 2014. Climatic Change 122: 229. Online at doi.org/10.1007/s10584-013-0986-y

Status of company disclosure in line with the TCFD recommendations, particularly the inclusion of climate-related financial risks in financial filings.

Transition Risks – Technology

Anticipated reliance on carbon dioxide removal technologies, also known as negative emissions technologies, and company financial investment in research and development for said technologies

Investments in low-carbon technology research and development as a proportion of overall research and development spending and future budget allocations

Transition Risks – Market

Holdings as of reporting date, showing book value, market value, and the funds' holdings as a percentage of company ownership

The funds' shareholder engagement activities in 2019, including descriptions of resolutions, sponsored, resolutions supported, acceptance or rejection of resolutions, and non-proxy engagements

Transition Risks – Reputation

Annual company expenditures on climate-related lobbying at the federal and California state levels

Company affiliation with, leadership positions in, and climate policy alignment with trade associations and other industry groups, such as American Legislative Exchange Council, American Petroleum Institute, National Association of Manufacturers, US Chamber of Commerce, and Western States Petroleum Association

Physical Risks

Acute and chronic physical risks posed by climate change to company operations and physical infrastructure, including the ability of projects to deliver services in the face of climate change¹²

Climate resilience assessments of new and existing company infrastructure, including social equity metrics and life-cycle cost assessments for surrounding communities.

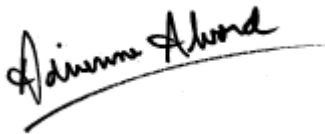
We offer this approach and outline in the expectation that CalPERS's and CalSTRS's reporting in response to SB 964 will provide a model for other funds and institutional investors confronting the reality of climate-related financial risks. The adoption of a robust reporting protocol, particularly in regards to the energy sector, will strengthen the funds' portfolio and provide companies with clear incentives to report adequately in this space.

¹² Gibson, J.R. 2017. Built to Last: challenges and opportunities for climate-smart infrastructure in California. Cambridge, MA: Union of Concerned Scientists. Online at www.ucsusa.org/climate-smart-infrastructure, accessed June 17, 2019.

Sincerely,



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EMBARGOED