



# CalPERS' Sustainable Investments 2030 Strategy Presentation and Discussion July 17, 2023

## Selective Questions to Address and Topics for Discussion

1. What is Sustainability, why is it important, and how does it influence CalPERS' Sustainable Investments vision?
2. Why is our comprehensive Net Zero plan more effective than simply divesting from high emitters and in alignment with our fiduciary duty?
3. Why should CalPERS prioritize decarbonizing the economy rather than just decarbonizing its portfolio?
4. What is the climate opportunity set and how will it capture both new technology and enable the transition of existing companies?
5. How is corporate engagement effective?
6. What are the evolving human capital trends that CalPERS' Sustainable Investments strategy will focus on?

## Outline of Board Presentation

1. Introductions [5 mins]
2. Interactive Questions [10 mins]
3. Guest speaker Karen Karniol Tambour sets the scene and provides an overview on climate change and the implications for asset owners. [45 mins including Q&A]
  - a. Climate
  - b. S and the G
  - c. Importance of integrating ESG into an asset owner's investment process
4. Staff presentation of CalPERS' Sustainable Investments 2030 Strategy [45 mins]
5. Wrap up, conclusion and any additional questions [5-10mins]

## Interactive Question #1 – Energy Transitions Pace

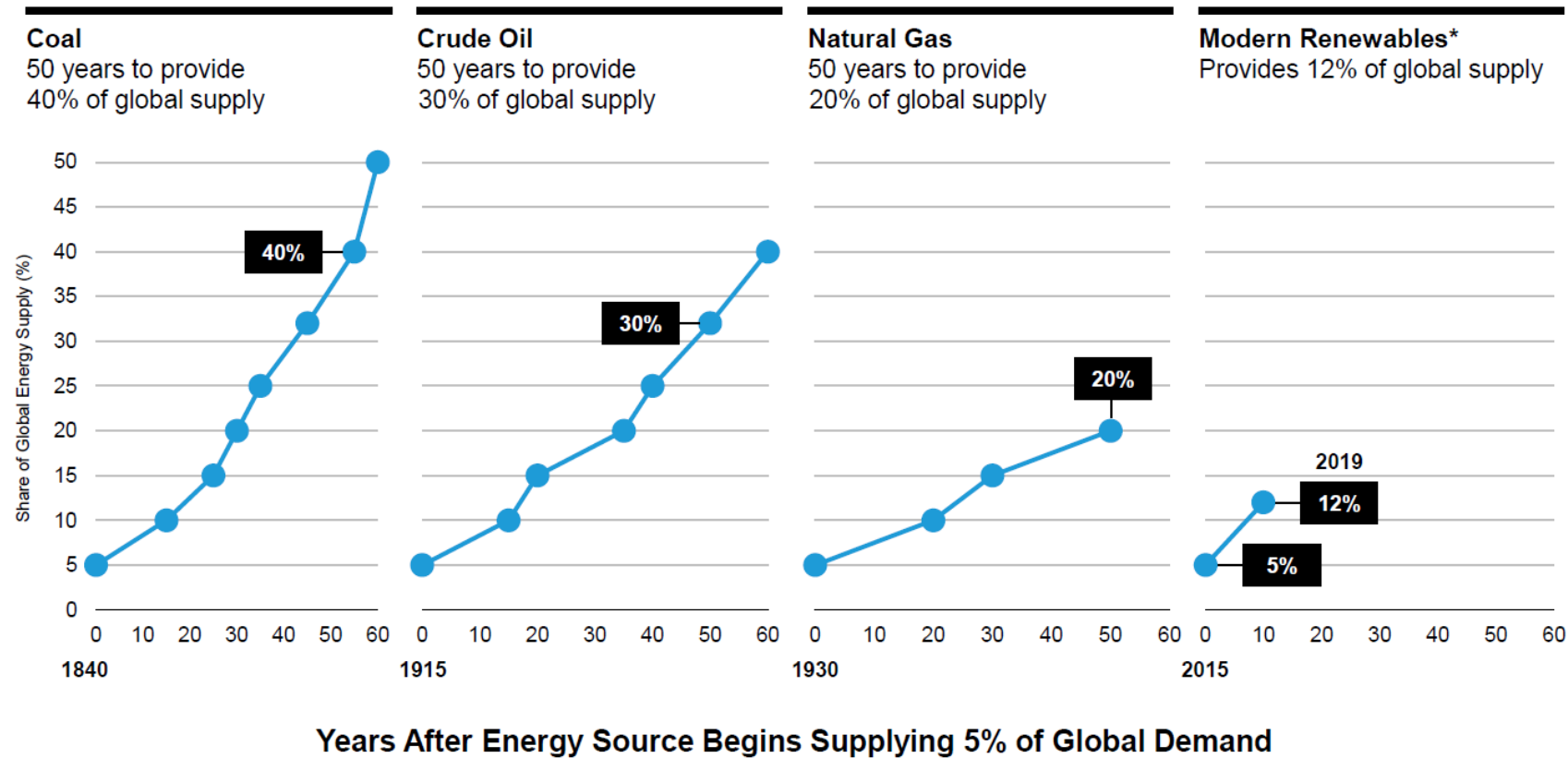
Historically, how many years has it normally taken to adopt new forms of energy?

- A. 5-10 years
- B. 10-20 years
- C. 50+ years

# Interactive Question #1 – Energy Transitions Pace

C. 50+ years

It has taken decades for major energy sources to provide a significant share of global supply



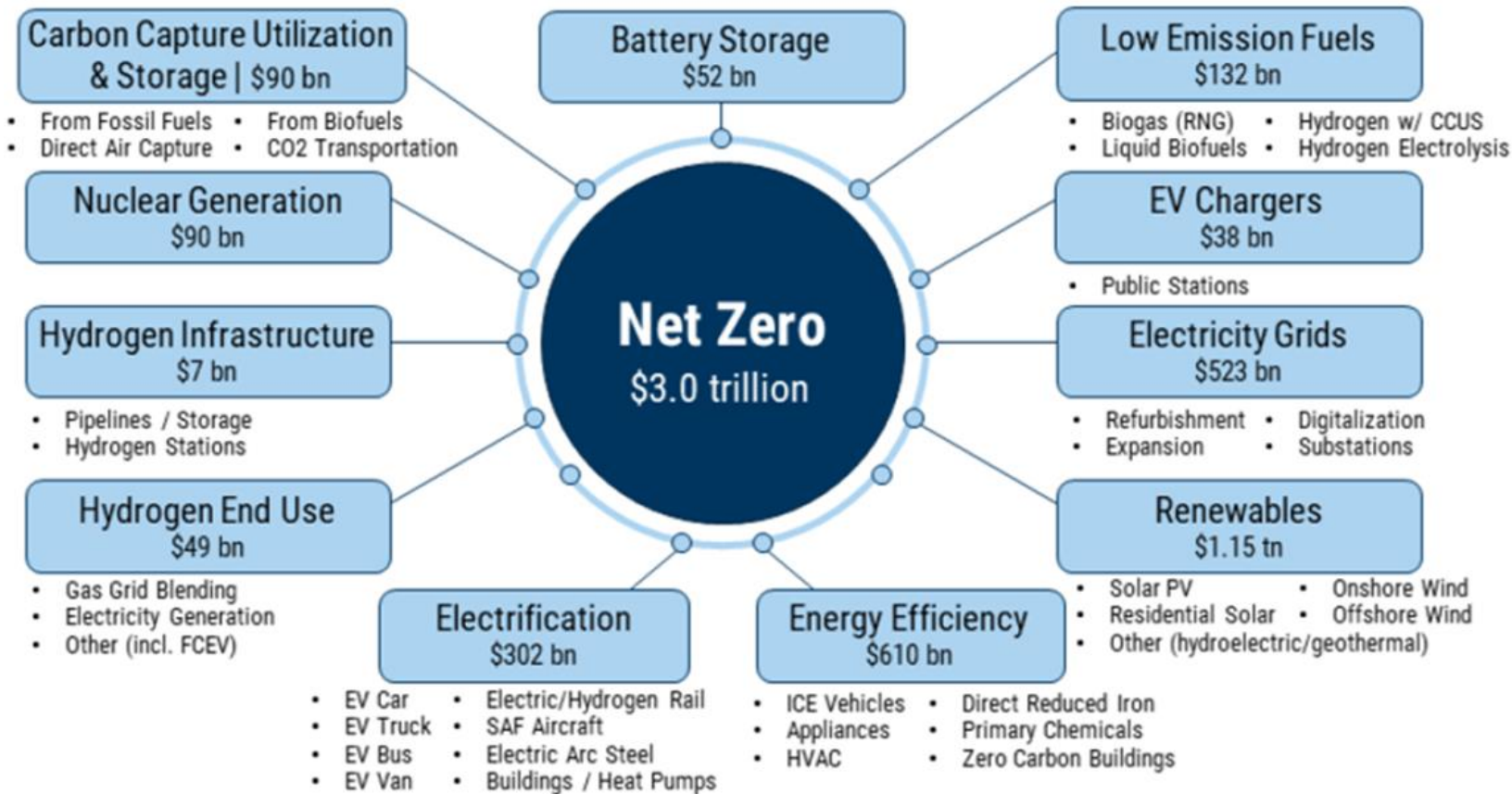
## Interactive Question #2 – 2050 Net Zero Capex Requirements

How much **annual** incremental Green Capex will be needed this decade (vs. prior decade) to fund Net Zero by 2050 globally?

- A. ~\$150 Billion
- B. ~\$900 Billion
- C. ~\$1.6 Trillion
- D. ~\$3.0 Trillion

# Interactive Question #2 – 2050 Net Zero Capex Requirements D. ~\$3.0 Trillion

## Green Capex Mosaic



## Implications and Investment Opportunity

- Significant investment opportunities will exist
- Not all of these opportunities will come to fruition and not all of the investments will be profitable



## Interactive Question #3 – Electric Vehicle Adoption

What percent of global light duty passenger car sales were EVs last year?

- A. 17%
- B. 9%
- C. 3%
- D. 1%

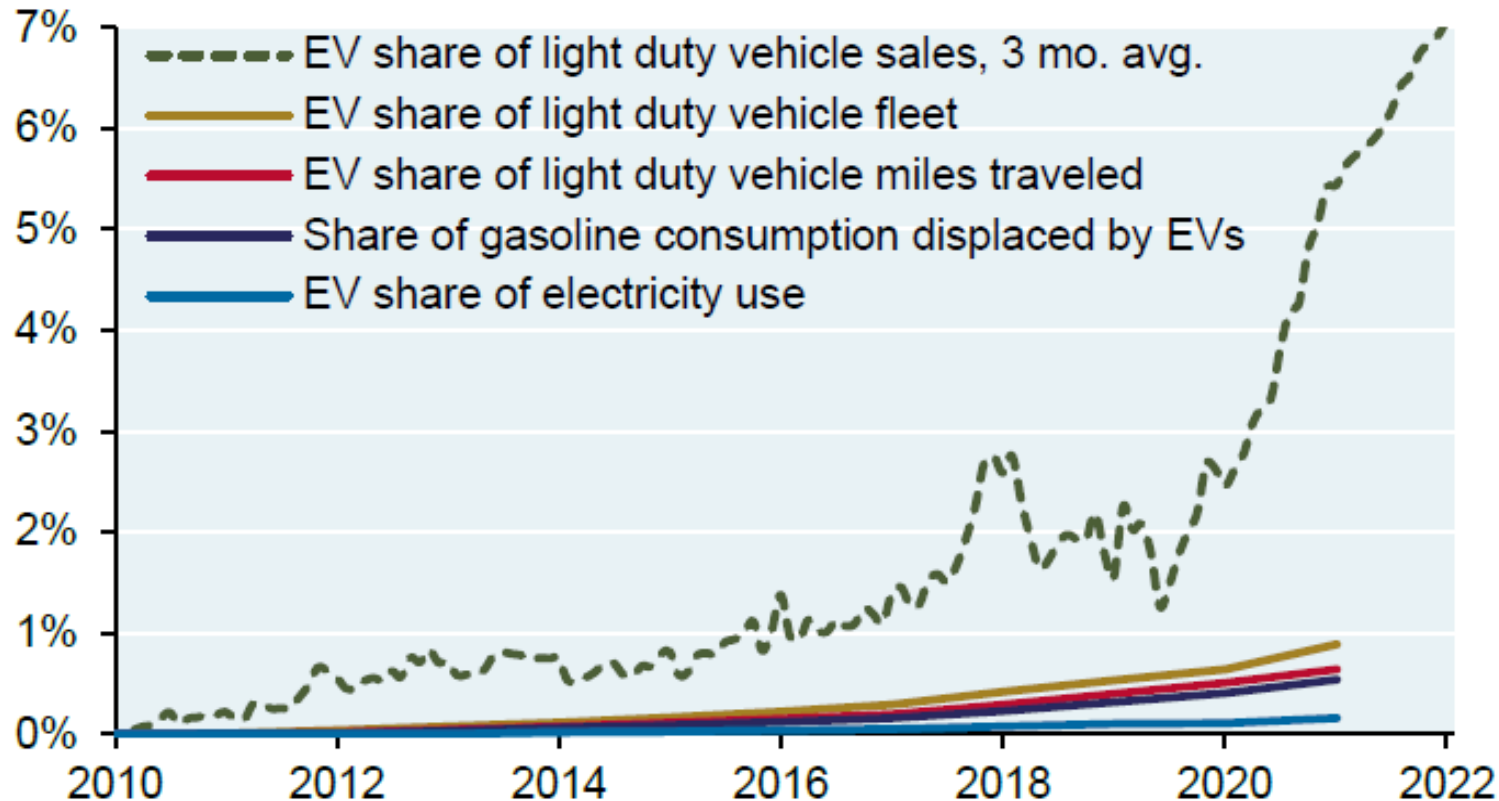


## Interactive Question #3 – Electric Vehicle Adoption

B: 9%

### It takes time for EV sales to impact entire fleet

Percent



Source: ANL, JPMAM. 2023.

### Implications and Investment Opportunity

- The momentum of adoption of new technologies tends to dramatically increase after the 5% threshold has been surpassed
- Supply chain constraints may emerge without adequate investment and domestic policy. The Inflation Reduction Act will serve as a catalyst to mitigate such risk
- Opportunities will exist across each segment of electric vehicle supply chain and construction
  - Mining and Preprocessing
  - Refining
  - Battery manufacturing
  - EV manufacturing
  - EV support, charging, components, and recycling

## Interactive Question #4 – Renewables as % of global electricity generation

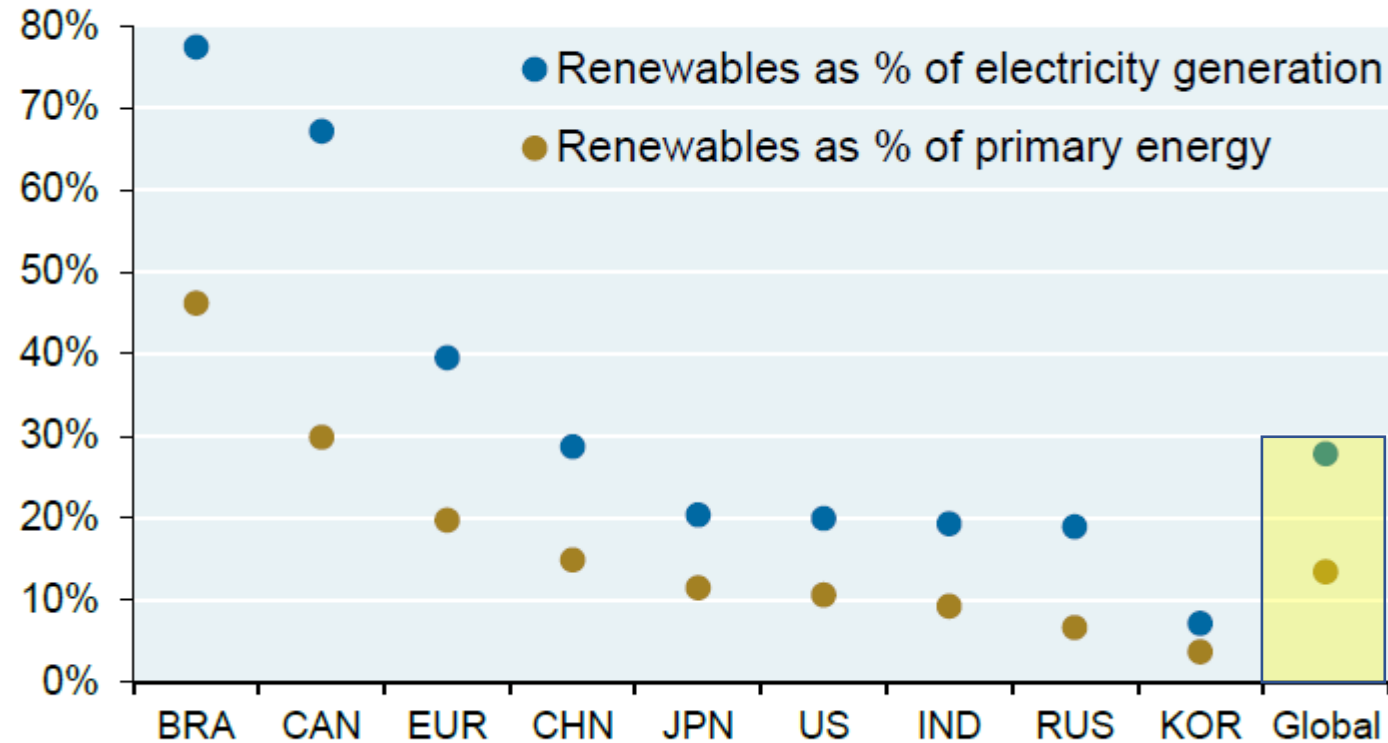
What percent of global electricity generation did renewables make up last year?

- A. ~45%
- B. ~30%
- C. ~20%
- D. ~10%

# Interactive Question #4 – Renewables as % of global electricity generation **B: ~30%**

## Renewable share of primary energy and electricity

Percent, including hydropower



Source: BP, JPMAM. 2022. Note: largest 9 countries by primary energy use.

### Implications and Investment Opportunity

- The majority of global electricity generation is still fossil fuel based
- Newer coal and natural gas plant lifespans can be 30-40 years, and these may not be retired early
- As coal phases out, many of these assets will be replaced by renewable generation, providing investment opportunities

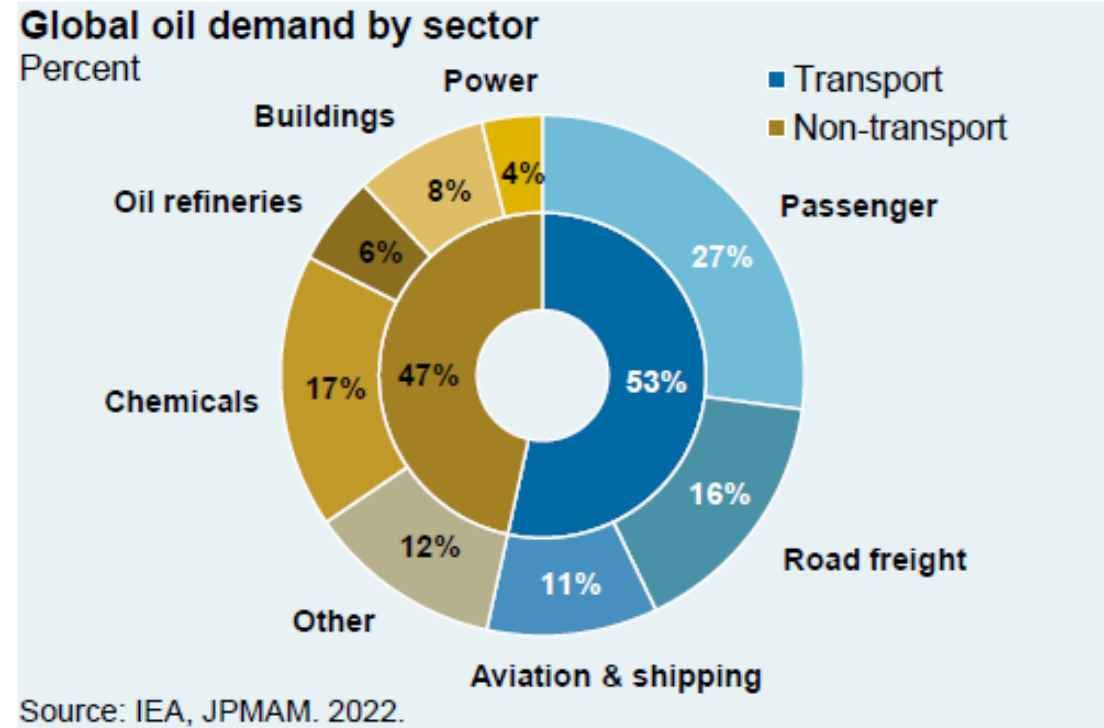
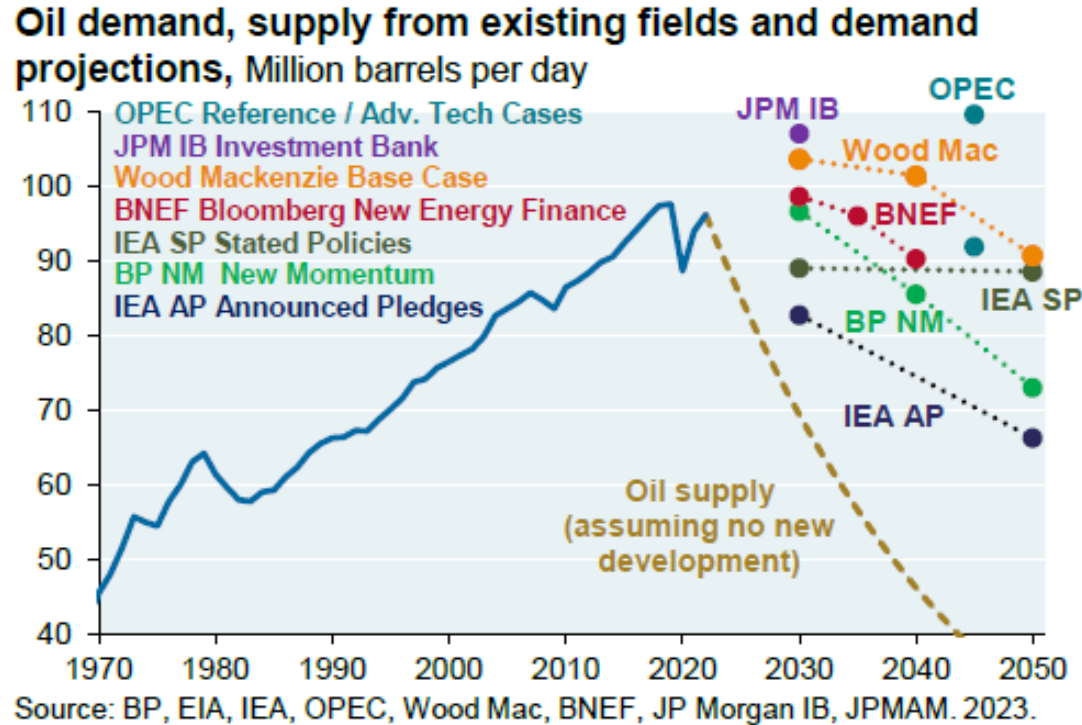
## Interactive Question #5 – Oil Supply and Demand

Global demand of oil is expected to decrease by what percent by 2050?

- A. 81%
- B. 37%
- C. 10%
- D. Increase 5%

# Interactive Question #5 – Oil Supply and Demand

C: 10%



## Implications and Investment Opportunity

- **Global demand for oil will eventually decrease through 2050, but potentially only slightly from what exists today**
- Since policy and consumer behavior isn't adequately changing, additional oil supply may be needed, even with partial pull backs in demand. Owners of oil companies must use engagement to ensure oil companies improve operational efficiency and continue to lower their emissions from operations.

## Guest Speaker:



### Karen Karniol-Tambour

Co-Chief Investment Officer

and co-leads the firm's Sustainable Investing efforts

Bridgewater Associates

Karen will set the scene and provide an overview on climate change and implications for asset owners. [45 mins including Q&A]

- a. Climate
- b. S and the G
- c. Importance of integrating ESG into an asset owner due diligence process

## CalPERS' Investments Mission Statement

Manage the CalPERS investment portfolio in an efficient and sustainable manner to generate risk adjusted returns to pay benefits now and into the future



## What is Sustainability?

*The ability to maintain and support a process over the long-term and promote the economy, environment and equity.*

For CalPERS, that means:

- Anchoring sustainability to long-term value creation
- Carrying out our mission and achieving our long-term return objectives for decades to come
- Integrating sustainability into the investment process

## CalPERS Investment Beliefs

Sustainable Investments is very consistent and also supportive of CalPERS Investment Beliefs (#2, 4, 6 and 9)

# Linking CalPERS' Sustainable Investments 2030 Strategy to CalPERS' Investment Beliefs

The CalPERS' Sustainable Investments 2030 Strategy is guided by the following Investment Beliefs

	Investment Belief 2	Investment Belief 4	Investment Belief 6	Investment Belief 9
	Long Horizon Resp./Advantage	Value creation Forms of capital	Strategic Allocation	Risk Multi-Faceted
Generate Alpha	●	●	●	
Improve Portfolio Resilience	●		●	●
Contribute to 2050 Net Zero	●	●	●	●
Promote Diversity, Equity & Inclusion	●	●		●
Improve Financial Markets Efficiency	●			●

- **IB4:** Long-term value creation requires effective management of three forms of capital: financial, physical, and human
- **IB9:** Risk to CalPERS is multi-faceted and not fully captured through measures such as volatility or tracking error
- **IB6:** Strategic asset allocation is the dominant determinant of portfolio risk and return
- **IB2:** A long time investment horizon is a responsibility and an advantage

## SI 2030 Strategy | Objectives

- 1** **Generate portfolio alpha<sup>1</sup>** by investing in climate opportunities and Emerging and Diverse Managers
- 2** **Improve portfolio resilience** by fully integrating ESG analysis, including climate risk analysis
- 3** **Implement an ambitious Net Zero plan** through investments, engagement and advocacy
- 4** **Promote greater inclusion and representation in the financial industry and the global economy**
- 5** **Build and promote efficient and equitable financial markets** through advocacy and regulatory action

# 1 Generate Alpha

**Generate portfolio alpha** by investing in the transition to a low carbon economy, including climate solutions and brown-to-green transitioning assets; and by investing in niche opportunities through our Emerging and Diverse Managers Program

## Our new SI strategy will include:

- Climate-related 2030 investment targets for the Total Fund
- Individual Asset Class commitments and investment targets
- Alpha generating investment opportunities resulting from record capital flows, emergence of disruptive business models and technologies, and information scarcity
- Establish a dedicated Sustainable Investment Portfolio that will invest across and alongside Asset Classes
- How we build on the initial \$1 billion committed to the Mosaic program (TPG and GCM Grosvenor)

# 1 Generate Alpha

Public Equities	Fixed Income	Real Estate	Infrastructure	Private Equity & Private Debt
<ul style="list-style-type: none"> <li>Invest in climate solutions (adaption and mitigation)</li> <li>Undervalued transition assets</li> <li>Climate transition leaders at a reasonable price</li> </ul>	<ul style="list-style-type: none"> <li>Invest in Green and Sustainability linked bonds</li> <li>Invest in companies that are supporting and will financially benefit from the transition to a low carbon economy</li> </ul>	<ul style="list-style-type: none"> <li>Sustainability certified buildings</li> <li>Energy optimization projects to reduce emissions while generating energy and cost savings</li> </ul>	<ul style="list-style-type: none"> <li>Renewables and energy storage</li> <li>Energy transition assets (brown to green)</li> <li>Carbon capture and storage (nature based and technologically driven)</li> </ul>	<ul style="list-style-type: none"> <li>Climate tech</li> <li>Invest in companies that are supporting and will financially benefit from the transition to a low carbon economy</li> </ul>

## 2 Improve Portfolio Resilience

**Improve portfolio resilience** by accelerating the integration of ESG analysis, including climate risk analysis, into the investment diligence process and portfolio management

### Our new SI strategy will include:

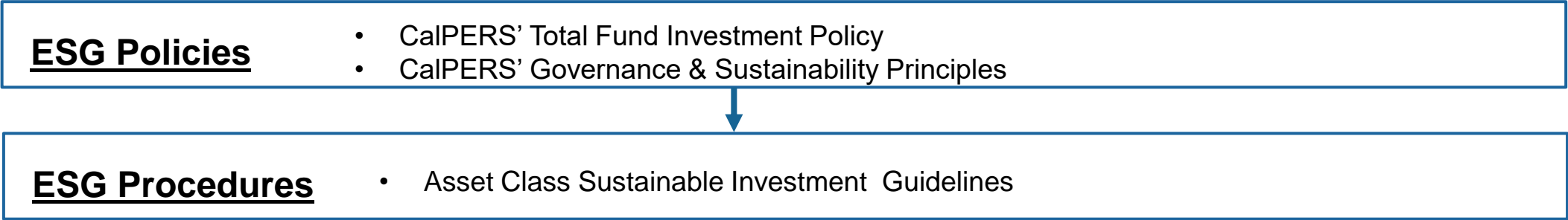
- Perform climate risk assessments on individual investments and overall portfolio (both physical and transition climate risk)
- A more systematic and comprehensive ESG analysis across all investments
- A refreshed focus on Sustainability Investing knowledge transfer and sharing across the Total Fund

2

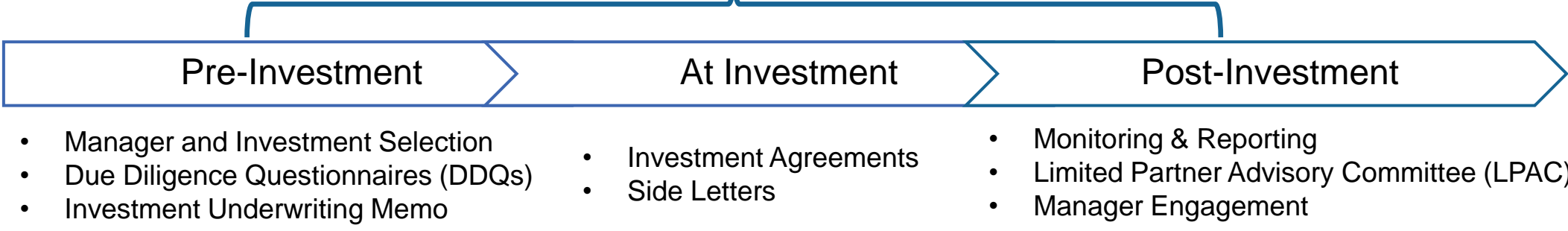
# Improve Portfolio Resilience

## ESG Integration

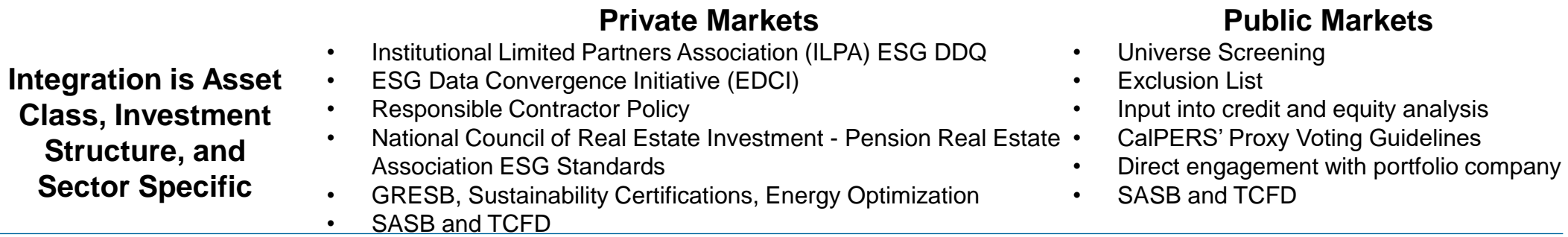
What guides our ESG integration?



When/Where do we integrate ESG?



What tools & levers do we use to integrate ESG?





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# Achieve Net Zero by 2050

**Have a meaningful impact on the trajectory of global emissions** by (i) making our **own portfolio Net Zero** by 2050 through investments in low carbon, climate and transition solutions; (ii) **engaging** the largest emitting companies without robust Net Zero strategies through **shareowner action**; and (iii) **engaging** the investment industry and **government regulators** to support the transition of the broader economy to Net Zero

## CalPERS' Path to Net Zero Strategy Deliverables:

1. Achieve **net zero greenhouse gas emissions for our investment portfolio** by 2050
2. **Increase investments in low carbon, climate solutions and transition investments** with a 2030 investment target
3. **Integrate climate risks and opportunity assessment into all investment decisions** to accelerate emissions reduction and value creation. Incorporate climate scenarios into our capital market assumptions and asset liability management process
4. **Engage our portfolio companies** to consider climate risks and pursue opportunities that create value over the long-term. **Advocate for policy and regulation** that promote decarbonization and expands our investment opportunities.
5. **Enhance measurements and reporting** of emissions and climate-related company commitments

3

# Achieve Net Zero by 2050

## Net Zero Investing Principles

- The path to net zero is a **long-horizon strategy** and successful long-horizon investment strategies go through periods of underperformance
- CalPERS needs to **prioritize decarbonizing the economy** rather than just decarbonizing its portfolio. As the economy decarbonizes, so will investors.
- **Divestment** from fossil fuels is not an effective net zero strategy
- Climate should be reflected in the set of **strategic benchmarks**
- Climate change will present **alpha opportunities**

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## Achieve Net Zero by 2050

### Divestment is Not an Effective Net Zero Strategy

- Divestment does **not reduce emissions across the economy** and has **little—if any—impact on a company's operations**
- **We lose our voice** and ability to have a “seat at the table” through engagement with companies
- **It increases risk** as we decrease diversification
- **We may lose money.** Forgone performance and transaction fees can add up to billions in forgone returns.
- **Employer and member contributions may increase.** If performance lags, contribution rates may be required to be increased, affecting employer agency budgets and individual members paychecks.

# 3 Achieve Net Zero by 2050

## Our comprehensive Net Zero plan is better than simply divesting

Engage and Influence

We will lean into working with our portfolio companies and regulators to transition. CalPERS will be a leader and catalyst of change, not an organization that walks away.

Maintain (selective) investments in fossil fuels

Fossil fuels are an important source of portfolio diversification, will remain an important component of the global economy and contribute to energy security

Finance the low-carbon transition

By maintaining selective investments, we can still finance the low carbon transition

Achieving net zero by 2050

Our plan will provide actual decarbonization for the economy and our portfolio. Not shift the responsibility to others via divestment.

# 3 Achieve Net Zero by 2050

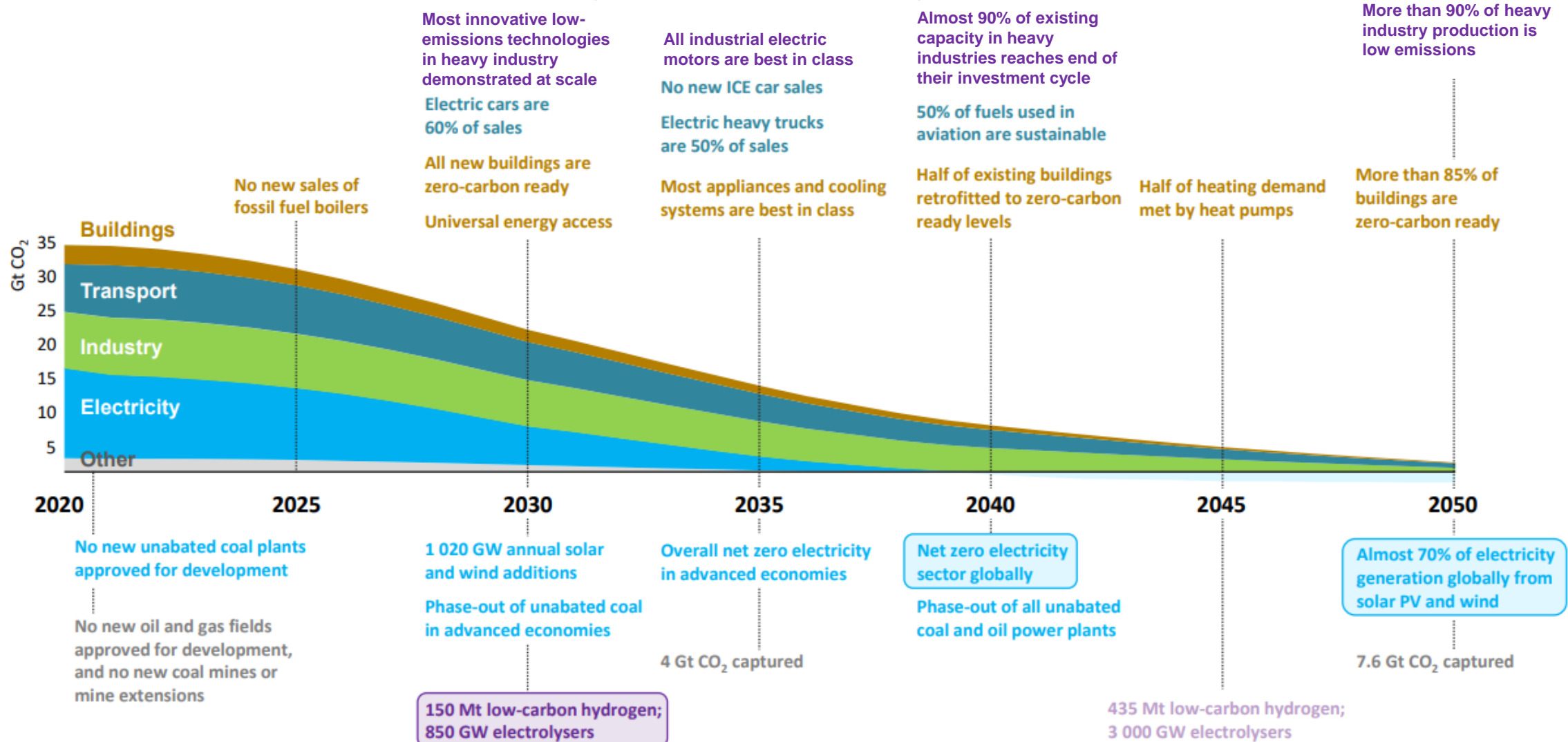
CalPERS has already invested \$40 billion in low-carbon and climate solutions investments (as of Dec 31, 2021) and is continuing to increase that

	Global Public Equity	Global Fixed Income Corporate	Real Estate	Infrastructure
	Invested in low-carbon solutions	Invested in low-carbon solutions	Invested in assets that have sustainability certifications	Invested in renewable energy, energy efficiency infrastructure, sustainability certified, and carbon-neutral assets
Dec 31, 2021	\$18.9 billion	\$1.2 billion	\$17.9 billion	\$4.7 billion
Dec 31, 2022	\$12.3 billion	\$1.25 billion	\$19.2 billion	\$6.2 billion
May 31, 2023	\$16.6 billion	\$1.67 billion		

- Low-carbon and climate solutions investments full methodology is provided in *CalPERS' Response to the Taskforce on Climate-Related Financial Disclosure (TCFD) and Senate Bill 964* glossary.
- Public Markets used MSCI's Low-Carbon Transition Risk framework to assess our investments to climate solutions
- Private Markets referenced the green project categories from the Green Bond Principles to assess investments to low-carbon and climate solutions investments. Real Estate and Infrastructure is an estimate as of Dec 31, 2022.

## IEA: Net Zero Roadmap

### What needs to occur across the economy to achieve Net Zero by 2050



# 3 Achieve Net Zero by 2050

## Why is Net Zero by 2035 not realistic?

- Economy is not on track, which would limit our investable universe
- Building a net zero portfolio would require huge divestment and sector reallocation
- This would lead to a dramatic increase in portfolio concentration and tracking error from our benchmark
- We would need to purchase hundreds of millions to billions of dollars of carbon credits each year to offset our emissions



## 4 Diversity, Equity & Inclusion

**Promote greater inclusion and representation in the financial industry and the global economy by promoting Diversity, Equity and Inclusion through advocacy and shareowner action**

### **Our new SI strategy will include:**

- DEI Survey of External Managers to better understand the DEI characteristics of our portfolio, as well as measure the progress of our external managers over time
- Our commitment to illustrate how diversity is vital to improving the performance of our organization, as well as the businesses and markets in which we invest
- The use of advocacy and engagement to influence the regulatory requirement for additional transparency and for corporations to take action

5

# Improve Financial Markets |

# Regulatory and Human Capital

**Build and promote efficient and equitable financial markets** through advocacy and regulatory action, including the promotion of responsible business practices and living wage for workers

## Our new SI strategy will include:

- Redefining our financial market focus areas
- This will include regulatory, advocacy, climate policy and human capital efforts
- A focus on evolving human capital trends including:
  - Demographic shifts
  - Education & training from companies
  - Company and regulatory AI strategy and impact
  - Focus on a 'Just Transition'

5

## Improve Financial Markets | Stewardship

Use proxy voting, company engagement, and shareowner campaigns to hold companies accountable, drive positive changes, mitigate risks, and enhance long-term financial performance for companies in the public equity portfolio

### **The SI strategy will continue to focus on:**

- Climate, diversity, and governance-related proxy voting, company engagement and shareowner campaigns
- Being a leading voice on emerging topics while realizing they may take 3+ years for change to come to fruition

### **Our strategy acknowledges the following related to effective corporate engagement:**

- Effective corporate engagement is dependent on a company hearing consistent themes
- Changes in company behavior and strategy do not come overnight, and that market dynamics and consumer behavior also influence company decisions

## Next Steps

### July 2023

- Reflect on feedback from July Board offsite discussion

### July-September 2023

- Collaborate with external consultant to review our net zero plan and to assess it against best practices

### September 2023

- Discuss CalPERS' Sustainable Investments 2030 Strategy in closed session at September Board meeting

### November 2023

- Present CalPERS' Sustainable Investments 2030 Strategy at November Board meeting

### November 2024 and going forward

- Provide annual progress report on CalPERS' Sustainable Investments 2030 Strategy