SFERS
San Francisco Employees' Retirement System

City and County of San Francisco
Employees' Retirement System

RETIREMENT BOARD CALENDAR SHEET
Retirement Board Meeting of May 17, 2017

To: The Retirement Board

Through: Jay Huish
Executive Director

William J. Coaker, Jr. – CFA, MBA
Chief Investment Officer

From: Robert L. Shaw, CFA
Managing Director, Public Markets

Date: May 17, 2016

Re: Update and Possible Action related to Divestiture of Thermal Coal Companies.

Background:

This item was presented and considered at April 19, ESG Committee of the Retirement Board. The ESG Committee voted to forward staff's recommendation to divest from certain thermal coal companies to the full Board with the Committee's recommendation for the Retirement Board to approve the recommended divestment.

History of the Retirement Board Actions related to the 2013 Board of Supervisor's Resolution asking the Board to Divest from the Top 200 Fossil Fuel Companies:

At the May 8, 2013 Retirement Board meeting, the Board received Supervisor Avalos' letter urging the Retirement Board to consider Board of Supervisors (BOS) Resolution #126-13 asking the Board to divest from the top 200 fossil fuel companies under the Retirement Board's *Social Investment Policy and Procedures*.

At the October 9, 2013 Retirement Board meeting, the Board considered BOS Resolution #126-13 and voted to direct staff to prepare an analysis and report regarding Level I and Level II engagement of fossil fuel companies under the Retirement Board's *Social Investment Policy and Procedures*.

At the February 19, 2014 special Retirement Board meeting, staff presented its analysis and report regarding a Level I and Level II engagement of fossil fuel companies under the Retirement Board's *Social Investment Policy and Procedures* and the Board approved a Level I (active proxy voting) engagement of the fossil fuel companies.

At the April 9, 2014 Retirement Board meeting, staff presented its report on SFERS' 2014 proxy season votes related to fossil fuels and greenhouse gas issues. Staff provided monthly 2014 proxy season vote updates to the Board at its regular meetings in May and June related to fossil fuels and greenhouse gas issues.

At a special Retirement Board meeting on June 18, 2014, the Retirement Board received various educational presentations, organized through Supervisor Avalos' office, on issues related to investment in fossil fuel companies, including the impact of divestment.

At the March 11, 2015 Retirement Board meeting, staff presented its analysis and report regarding Level II engagement of fossil fuel companies under the Retirement Board's *Social Investment Policy and Procedures* and the Board approved a Level II (active corporate engagement) engagement of fossil fuel companies. The Board also directed staff to bring an analysis and report on possible investment in a passive ex-fossil fuels index fund.

At the April 8, 2015 Retirement Board meeting, staff presented its preliminary analysis and report regarding possible investment in a passive ex-fossil fuels index fund and the Board directed staff to complete its due diligence and bring a recommendation to the Board at a later date. The Board also approved creation of a standing Environmental, Social and Governance (ESG) Committee to review and define the Board's values and policies related to ESG issues.

At the May and June 2015 Retirement Board meetings, staff provided monthly 2015 proxy season vote updates to the Board related to fossil fuels and greenhouse gas issues.

At the July 8, 2015 Retirement Board meeting, staff presented its analysis and recommendation regarding investment in a passive ex-fossil fuels index fund and the Board approved staff's recommendation to invest $100 million in a passive ex-fossil fuels index fund – this $100 million investment in MSCI USA Ex-Fossil Fuels index was completed in January 2016. The Board also approved amending its existing proxy voting policy by adopting the *Policy on Environmental-related Shareholder Proposals* which created a first-level screen for support for resolutions that provides additional information related to environmental issues; that require corporate actions beyond reporting of environmental issues; and that establish special corporate committees to address broad corporate policies related to environmental issues.

At the December 9, 2015 Retirement Board meeting, staff presented information to the Board related to SB-185: Public Divestiture of Thermal Coal Companies that was signed by Governor Brown on October 8, 2015 which when fully implemented will prohibit both CalPERS and CalSTRS from owning publicly issued stock, corporate bonds or other debt instruments issued by a company that generates 50% or more of its revenue from the mining of thermal coal. Staff reported on SFERS' holdings in companies that have coal mining operations that could be potentially fall under the SB-185 restriction. Staff identified a total of 8 holdings with a market value of $21.1 million as of December 2015. The list provided to the Board included holdings that would not fit under the restrictions imposed by SB-185, namely, global mining firms - BHP Billiton, Rio Tinto, Vale and Glencore – which have multiple lines of business and for which thermal coal mining represents less than 10% of the firms' revenues.

At its December 9, 2015 meeting, the Board approved the prudent divestment from thermal coal companies and the reinvestment of the proceeds in renewables and directed staff to prepare an implementation plan for implementing the divestment from thermal coal companies. Staff stated that they would come back to the Board with a plan for implementing the divestment from thermal coal companies.

At the May and June 2016 Retirement Board meetings, staff provided monthly 2016 proxy season vote updates to the Board related to fossil fuels and greenhouse gas issues (INCR sponsored resolutions).

At the July 13, 2016 Retirement Board meeting, staff presented its analysis and recommendation for implementing the Board's December 9, 2015 determination to divest from its thermal coal holdings. The Retirement Board referred this item to the ESG Committee for consideration and possible recommendation for action to the full Retirement Board.

This item was presented to the ESG Committee at its September 14, 2016 committee meeting as a discussion item and continued to its next meeting. It is brought back to the ESG Committee for its action on the staff recommendation on April 19, 2017.

SFERS' Public Market Holdings in Thermal Coal Companies

As of March 31, 2017, SFERS holds interests in ten companies that are actively involved in the mining of thermal coal with a market value of $48.1 million (see Appendix A):

1. Alpha Natural Resources (U.S.) - active in both thermal (more than 50% of revenues) and metallurgical coal;
2. Anglo American PLC (U.K.) - a global mining company that is active in metals (32% of revenues), iron and steel (24% of revenues), diamonds (26% of revenues), other (5%) and thermal coal (13% of revenues);
3. BHP Billiton LTD (U.K.) - a global mining company active in iron ore (34% of revenues), base metals (27% or revenues), petroleum (22% of revenues) and coal (15% of revenues) with other activities accounting for roughly 2% of revenues. Using data from the most recent company information (fiscal 2016), thermal coal mining revenues are 5.7% of its total revenues;
4. Black Hills Corporation (U.S.) - primary line of business is as an electric and gas utility in and around Rapid City, South Dakota with the mining of thermal coal less than 4% of revenues;
5. China Resource Power Holdings (Hong Kong) – a power company operating power plants and coal mines in mainland China with thermal coal representing approximately 4.4% of revenues;
6. CLP Holdings (Hong Kong) – a utility company with operations across Asia, India and Australia which owns and operates several thermal coal mines in Australia - based on available estimates of the amount of coal (metric tonnes) mined each year, Staff estimates that thermal coal mining is approximately 10% of revenues;
7. Consol Energy (U.S.) is an energy company active in oil and gas (43%) and coal (57%). Staff estimates that the majority of the coal revenues are from thermal coal mining;
8. Glencore (U.K.) - active in a three lines of business – metals & mining (378%), energy products (50%) and agriculture (13%) – based on data obtained from Glencore's financial statements, Staff estimates that revenues from coal mining account for 44% of total revenue and 20% of industrial revenue;

9. Rio Tinto (U.K.) - a global mining company active in four main business lines – aluminum (27%), cooper and diamonds (13%) and energy and minerals (19%). . Based on business line data provided by Rio Tinto, Staff estimates that thermal coal is 4% of revenues; and
10. Vale (Brazil) - focused on three primary business lines: ferrous minerals (74% of revenues), base metals (22%) and coal (3%) with other business accounting for roughly1% of revenues). Based on business line data available in Vale's published reports, Staff estimates that thermal coal is 1.5% of revenues.

Public Market US Coal Companies not currently owned by SFERS

Staff has completed the analysis for publicly traded US companies active in the coal mining industry which are not currently owned by SFERS. This list consists of:

1. Alliance Resource - generates more than 80% of its revenues from Thermal Coal mining;
2. Arch Coal - mines a mix of thermal coal (more than 50% of revenues) and metallurgical coal;
3. Cloud Peak Energy - operating in the Powder River Basin (Wyoming), produces only thermal coal;
4. CNXCoal Resources LP - formed when Consol Energy spun-off a portion of its thermal coal operations in 2015 - thermal coal represents more than 95% of revenues;
5. Hallador Energy - thermal Coal mining in the Appalachian mountain region represents close to 100% of revenues;
6. NACCO Industries – a diversified company with operations in household appliances, hotels and specialty retail – thermal coal operations are less than 15% of revenues;
7. Peabody Energy - active in both metallurgical and thermal coal – with thermal coal representing more than 75% of revenues;
8. Warrior Energy was formed in 2016 when the company acquired the metallurgical coal mining assets of Walter Energy. More than 90% of the company's revenues are from metallurgical coal mining activities; and
9. Westmoreland Coal - more than 80% of the company's revenues are from thermal coal mining activities.

Non-US Coal Companies.

Staff has completed preliminary due diligence on the seven non-US coal companies currently in SFERS' Public Markets portfolio: Anglo American, BHP Billiton, China Resource Power Holdings, CLP Holdings, Glencore, Rio Tinto and Vale. The universe of non-US coal companies not owned by SFERS will require additional analysis by Staff to determine each company's involvement in thermal coal mining.

SFERS Environmental, Social and Governance Investment Policy and Procedures

The SFERS *Environmental, Social and Governance Investment Policies and Procedures* provide that adequate recognition must be given to the environmental, social and governance consequences of corporate actions and investment decisions to achieve maximum long term investment return from

Trust assets. But the policy recognizes that in no event may the policy take precedent over the fiduciary responsibility of producing investment returns for the exclusive benefit of the members and beneficiaries. Environmental, social and governance concerns addressed through the policy will follow the order of action outlined in the policy except where the Board determines that action contemplated in an earlier step has been initiated prior to consideration of action under the policy and found to be ineffective or non-relevant.

The *SFERS Environmental, Social and Governance Investment Policies and Procedures* outline three levels of action that the Board can direct staff to implement to engage companies on social issues of concern:

<u>Level I – Shareholder Voting</u>: SFERS' shareholder voting rights will be exercised reflecting specific Board social investment considerations and directions or by authorization under procedures which reflect the Retirement Board's directions on social issues.

<u>Level II – Promoting Social Rights and Interests</u>: SFERS will proactively promote social interests individually or in concert with other shareholders to assure proper recognition of social interests with the goal of influencing corporate activities or policies. Activities at this level may include direct communication with the company and/or initiation of shareholder resolutions, individually or in concert with other shareholders.

<u>Level III – Investment Restrictions</u>: In the event that Level I and Level II engagement has not provided the Board's desired results and alternatives to the restricted holdings are available which do not compromise investment return and risk, the Board may direct staff to restrict investment activities in specific areas to promote the interest of the SFERS Trust members and beneficiaries. Under Level III engagement, staff would provide directions to the investment managers that could include restricting purchase of additional shares of the targeted securities and directing the managers to research alternative securities to replace the targeted holdings that would provide comparable investment return with comparable risk.

All thermal coal-producing companies are currently included in the Board's March 11, 2015 decision to engage the fossil fuel companies at Level II of the Board's *Environmental, Social and Governance Investment Policy and Procedures*.

<u>Fiduciary Duty to SFERS Members and Beneficiaries</u>

California Constitution Article XVI Section 17 provides that Retirement Board members "shall discharge their duties with respect to the system solely in the interest of, and for the exclusive purposes of, providing benefits to participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system. A Retirement Board's duty to its participants and their beneficiaries shall take precedence over any other duty." CA Constitution, Art. XVI, §17(b). Further, Board "members shall diversify investments of the system so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly not prudent to do so." CA Constitution, Art. XVI, §17(d). See also San Francisco Charter §12.100, §12.103. These duties require the Board to weigh potential risks and returns, choosing an investment mix most likely to fulfill the System's obligations to ensure it provides the promised benefits to its members and beneficiaries.

The Retirement Board and SFERS staff are also required to invest the SFERS Trust "with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims." California Constitution, Art. XVI, §17(c). The prudence requirements are generally satisfied if, in the analysis, the Retirement Board and staff are guided principally by economic and business factors. Whether an investment benefits a social goal may be a secondary consideration.

The Employee Retirement Income Security Act of 1974 ("ERISA") contains similar provisions and, in that context, the Department of Labor ("DOL") has issued guidance relating to fiduciary implications of certain socially responsible investments. The DOL has stated that ERISA fiduciaries may never subordinate the economic interests of the plan when making investment decisions. Fiduciaries risk violating the exclusive purpose rule if they attempt to exercise their fiduciary authority in an attempt to further legislative, regulatory or public policy issues. At the same time, a recent DOL Interpretive Bulletin issued in October 2015 (IB 2015-1) confirms the DOL's consistent view that fiduciaries may take considerations associated with economically targeted investment (investments selected for the economic benefits they create apart from their investment return to the employee benefit plan), including ESG factors, into account as "tie-breakers" when investments are otherwise equal with respect to return and risk over the appropriate time horizon. (*See* IB 2015-1, p. 6.)

In addition, an "important purpose" of IB 2015-1 is to clarify that ESG factors "may have a <u>direct relationship</u> to the economic value of [a] plan's investment." (Emphasis added.) When they do, these factors are more than just collateral considerations or tie-breakers, but rather are "proper components of the fiduciary's primary analysis of the economic merits of competing investment choices...." (IB 2015-1, p. 6.)

In discharging investment duties, it is the DOL's view that fiduciaries must, among other things, consider the role of the particular investment in the plan's investment portfolio, taking into account factors such as diversification, liquidity, and risk/return characteristics. Because every investment necessarily causes a plan to forgo other investment opportunities, fiduciaries also must consider expected return on alternative investments with similar risks available to the plan. This does not preclude consideration of collateral benefits, such as favoring an investment that supports a particular policy or objective, when evaluating a particular investment opportunity.

Fiduciaries are prohibited from subordinating the interests of the participants and beneficiaries in their retirement income to unrelated objectives. A decision to make an investment, or to designate an investment alternative, may not be influenced by non-economic factors unless the investment ultimately chosen, when judged solely on the basis of its economic value, would be equal to, or superior to, available alternative investments. The DOL also suggests that when fiduciaries rely on non-economic factors, they should maintain written records demonstrating their quantitative and qualitative analyses in order to prove the alternatives were of equal value.

These DOL rules apply directly only to plans that are subject to ERISA. SFERS, as a governmental plan, is not subject to ERISA. However, because the ERISA provisions are similar to the language in the California Constitution and the Charter, the views of the DOL may be looked to for guidance on fiduciary obligations.

Investment Performance of Thermal Coal

MSCI has developed a global equity benchmark that excludes coal companies. The table below shows performance both with and without coal companies:

	Annualized Performance as of 03/31/2017			
	3 Months	1 Year	3 Years	5 Years
MSCI ACWI (ex Coal)	6.90	14.84	5.24	8.58
MSCI ACWI	6.91	15.04	5.08	8.37
Difference	(0.01)	(0.20)	0.16	0.21

Over the past 3 and 5 years, the ownership of companies involved in the coal mining industry, as represented by those companies included in the Index, has subtracted value.

The Investment Case for Thermal Coal

The economics for thermal coal are not favorable.

End User Demand. Overall power generation in the United States has been stable for more than a decade. The average annual usage since 2001 has been 4.0 trillion kilowatthours with a standard deviation of 0.1[1]. It is unlikely that prices for thermal coal will increase from a marked increase in end user demand for electric power generation unless significant levels of current supply or competing products (such as natural gas) are removed from the market.

Substitute for Coal. Natural gas is the most prevalent substitute for thermal coal and many newer power plants are capable of using either fuel, which allows the end-user to alter their fuel mix based on market prices. There has also been a significant increase in market supply of natural gas. From the 1970s until 2010, annual supply was stable around 20 trillion cubic feet ("Tcf"). As of 2015, the annual production was 27 Tcf – a 35% increase and is expected to increase as new domestic sources are brought on line. In many regional markets, natural gas is now priced below thermal coal. In addition, recent research indicates that both utility scaled solar and wind power generation are becoming cost competitive with thermal coal.[2]

End user demand is stable with no signs of significant growth. Natural gas is a ready and price competitive substitute and there is an abundant and growing domestic supply. Both wind and solar power generation capabilities are being developed that may replace thermal coal in some markets.

Market Environment

Staff believes that the thermal coal mining industry will face significant financial and environmental hurdles going forward, which will limit the potential for positive investment returns. These hurdles include:

1. Bankruptcy - Alpha Natural Resources, Arch Coal, Peabody Energy and Walter Energy have all filed for bankruptcy within the last 12 months;

[1] Data obtained from the US Energy Information Agency.
[2] Lazard – Levelized Cost of Energy – 2015.

2. Asset Impairments - many companies (Rio Tinto, Vale, etc.) have reported impairment charges on their financial statements to note the decline in the value of reserves and other assets related to the companies' coal operations;
3. Regulatory Uncertainty – last month, President Trump signed an executive order targeting the US Clean Power Plan (signed into law in 2015) which sought to cut greenhouse gas emissions from coal-fired power plants which would have very likely resulted in reduced coal utilization in favor of natural gas and other substitutes; and
4. Coal Substitution Options - a broad set of fuels (natural gas, solar and wind) have become or are becoming price competitive with thermal coal, which may limit the ability of many thermal coal companies to return to profitability.

Mitigating Considerations

A number of corporations, specifically those for which thermal coal does not represent a majority of revenues, have been selling their thermal coal mines. Staff believes this indicates a desire by management to reduce exposure to an energy source that may become uncompetitive and unable to produce the returns on capital sought. These companies are:

1. Anglo American PLC. The firm recently sold two thermal coal mines. The two mines were sold to Batchfire Resources and Australian Pacific Coal. Anglo is also in negotiations to sell its 1/3rd interest in a thermal coal mine located in Columbia.

2. BHP Billiton. In February 2016, BHP announced the sale of the San Juan (New Mexico) thermal coal mine. The mine was sold to Westmoreland Coal.

3. Rio Tinto. In late 2015, Rio Tinto sold its 40% interest in Bengalla, an Australian thermal coal mine. In January 2016, the firm sold a second Australian thermal coal mine and is currently finalizing the sale of the Blair Athol thermal coal mine. These sales are expected to cut Rio Tinto's revenues from thermal coal by more than 50% (based on reported 2015 production). In early 2017, Rio Tinto announced that it was exiting the Thermal Coal business – pending approval from regulatory agencies in Australia.

4. Vale. In November and December 2015, Vale sold its joint-venture interests in two Australian thermal coal mines, which reduced Vale's production of thermal coal by roughly 20%. In 2017, Vale announced that it was selling a minority stake in its Mozambique coal mines to Mitsui.

Staff Recommendation

In consideration of the information provided in this memorandum, including the mitigating considerations presented above, staff recommends that:

A. Investment restrictions be approved (Level III of the *SFERS Environmental, Social and Governance Investment Policy and Procedures*) for the following US companies that derive significant revenues from the mining of thermal coal:

1. Alpha Natural Resources
2. Alliance Resource
3. Arch Coal
4. Cloud Peak Energy
5. Consol Coal Resources LP
6. Consol Energy
7. Hallador Energy
8. Peabody Energy
9. Westmoreland Coal

and

B. Staff continue shareholder engagement (Level II of the *SFERS Environmental, Social and Governance Investment Policy and Procedures*) for the following companies:

1. Anglo American PLC
2. BHP Billiton LTD
3. Black Hills Corp.
4. China Resource Power Holdings
5. CLP Holdings
6. Glencore
7. NACCO
8. Rio Tinto
9. Vale

Should the Retirement Board approve the recommended investment restrictions, staff will direct all SFERS public market investment managers that:

a. Managers are no longer authorized to purchase the restricted securities listed in section A above; and
b. Managers must develop, in a reasonable period of time, a plan to prudently divest from the restricted securities.

Appendix A

San Francisco Employees' Retirement System
Public Equities: Coal Company Holdings

	Market Value				
Security Description	**October-15**	**April-16**	**June-16**	**August-16**	**March-17**
RIO TINTO	$9,836,759	$13,285,487	$18,206,266	$16,875,355	$9,970,098
CHINA RESOURCE POWER	9,662,420	7,777,614	6,841,745	8,502,053	5,764,797
BHP BILLITON	3,400,863	3,798,360	8,847,119	6,555,289	12,869,707
GLENCORE	769,487	3,624,053	3,485,238	5,616,222	3,980,966
VALE	4,483,508	2,586,278	2,232,471	1,859,618	3,192,285
ANGLO AMERICAN	1,996,460	1,301,766	920,093	1,199,680	2,124,265
CLP HOLDINGS	788,216	837,077	921,571	928,130	1,829,602
BLACK HILLS	169,844	266,717	277,502	149,859	169,033
CONSOL ENERGY	278,654	-	-	-	379,161
ALPHA NATURAL RESOURCES	-	-	-	-	2,926
Total	$31,386,210	$33,477,352	$41,732,005	$41,686,206	$40,282,840

San Francisco Employees' Retirement System
Fixed-Income: Coal Company Holdings

	Market Value				
Security Description	**October-15**	**April-16**	**June-16**	**August-16**	**March-17**
VALE	$167,019	$2,058,729	$2,702,534	$2,159,892	$2,271,910
ANGLO AMERICAN	0	1,433,386	1,420,563	1,721,115	1,076,592
GLENCORE	1,133,933	1,272,633	3,925,710	1,460,000	4,421,143
ALPHA NATURAL RESOURCES	509,527	525,055	661,772	43,365	64,096
CLOUD PEAK ENERGY	156,960	-	-	-	-
SUNCOKE ENERGY PARTNERS	318,164	-	-	-	-
Total	$2,285,604	$5,289,803	$8,710,579	$5,384,372	$7,833,741

Total (Equities + Fixed-Income)	$33,671,814	$38,767,156	$50,442,584	$47,070,578	$48,116,581