

RETIREMENT BOARD CALENDAR SHEET Retirement Board Meeting of October 14, 2020

To: Retirement Board

Through: Jay Huish Executive Director

Kurt Braitberg, CFA, CAIA Managing Director, Public Markets

From: Andrew Collins Director of ESG Investing Adrienne von Schulthess Security Analyst, ESG Investing

William J. Coaker Jr., CFA, MBA

Chief Investment Officer

Date: October 14, 2020

Agenda Item:

Targeted Divestment of Thermal Coal Companies: Level III of SFERS ESG Investment Policy

Background:

At the May 17, 2017 meeting, the San Francisco Employees' Retirement System ("SFERS") Retirement Board ("Board") approved Investment Staff ("Staff") recommendations to 1) establish investment restrictions (Level III) for certain "US companies that derive significant revenue from the mining of thermal coal" and 2) engagement (Level II) with certain companies for which thermal coal "does not represent a majority of revenues". At the October 9, 2019 meeting, the Board approved an update to the criteria for investment restriction of thermal coal companies whereby companies are also subject to investment restriction if they derive between 10% and 50% of revenues from thermal coal activities and have not announced plans to substantially reduce or cease thermal coal activities.

This memorandum provides an update to the list of thermal coal companies recommended for investment restriction, details the performance impact of not owning these companies in the SFERS' investment portfolio over the past year and since the inception of the restriction, and provides an update on developments in the thermal coal industry over the past 12 months.

Recommendation:

Staff recommends that the Board reaffirm its intent to remain divested from thermal coal companies, and adopt the list of restricted companies identified in Appendix B.

If the Board agrees with Staff's recommendation, the following motion is recommended:

Move that the San Francisco Employees' Retirement System maintain its policy with respect to divestment from thermal coal companies and approve the list of restricted companies as outlined in Appendix B of Staff's memorandum.

Attachment:

Staff Memorandum



То:	Retirement Board	
Through:	Jay Huish	William J. Coaker Jr., CFA, MBA Chief Investment Officer
	Kurt Braitberg, CFA, CAIA Managing Director, Public Markets	
From:	Andrew Collins Director of ESG Investing	Adrienne von Schulthess Security Analyst, ESG Investing
Date:	October 14, 2020	

Agenda Item:

Divestiture of Thermal Coal Companies: Level III of SFERS ESG Investment Policy

Background:

At the May 17, 2017 meeting, the San Francisco Employees' Retirement System ("SFERS") Retirement Board ("Board") approved Investment Staff ("Staff") recommendations to 1) establish investment restrictions (Level III) for certain "US companies that derive significant revenue from the mining of thermal coal" and 2) engagement (Level II) with certain companies for which thermal coal "does not represent a majority of revenues".

At the September 12, 2018 meeting, the Board approved recommendations to 1) establish a formal framework for thermal coal investment restrictions and 2) an updated list of restricted thermal coal companies that was expanded to include non-US companies.

At the October 10, 2018 meeting, the Board approved five strategies recommended by Staff to address climate risk in the SFERS portfolio.

One of the strategies approved at the October 10, 2018 meeting included "Engage with thermal coal companies that receive between 10-50% of revenue from thermal coal. Considering divesting from any companies that do not make a commitment to exit the thermal coal business in the near term."

At the October 9, 2019 meeting, the Board approved an update to the criteria for investment restriction of thermal coal companies whereby companies are also subject to investment restriction if they derive between 10% and 50% of revenues from thermal coal activities and have not announced plans to substantially reduce or cease thermal coal activities.

This memorandum provides an update to the list of thermal coal companies recommended for investment restriction.

Summary of Developments in Thermal Coal Market:

Staff continue to have significant concerns around the thermal coal industry's viability. In the context of tightening climate regulations, blends of gas and renewables integrated with energy storage, transmission and demand response have significant advantages in electricity generation.

The coal industry is already in decline in the US and Western Europe (which continued to accelerate in the first half of 2020), and indications are this is likely to occur around the world. China's ability to make good on its goal to be net carbon neutral by 2060 will hinge significantly on its ability to phase out coal-fired power. This could have a ripple effect globally since its Belt and Road initiative invests heavily in coal-fired generation in South Asia, Africa, and the Balkans.

As summarized by the International Energy Agency (IEA) in its 2020 Coal Fire Power progress update¹:

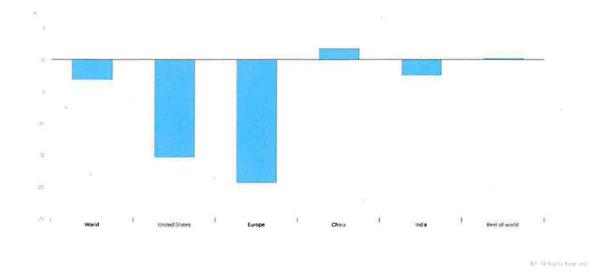
After three years of increase, coal-based generation dropped 3% in 2019 as electricity demand growth slowed. It remains the primary energy source for electricity generation worldwide, however, with a share of 36% due to its widespread use in Asian economies.

Coal generation in Asia – particularly in China and Southeast Asia – continued to expand in 2019. However, increases in Asia were more than offset by lower coal generation in advanced economies, including in the United States and Europe.

Coal-fired power generation in the United States continued to decline in 2019 (by roughly 200 TWh) as overall power generation fell and gas-fired generation continued to expand.

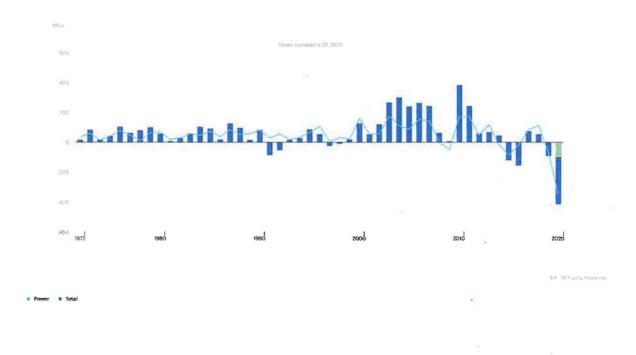
Coal generation in Europe plummeted in 2019 (by 175 TWh), mainly because of strong renewablesbased generation and coal-to-gas switching. Many countries have announced coal phase-outs: Germany, the largest coal consumer in Europe, plans to be coal-free by 2038.

¹ https://www.iea.org/reports/coal-fired-power



Changes in coal-fired power generation capacity by region, 2019²

In 2020 the lockdowns implemented in response to the Covid-19 outbreak dramatically curtailed electricity use and industrial production in most countries, pushing down global coal consumption. The size of the economic impact and the speed of recovery in the main coal-consuming jurisdictions will determine the ultimate size of the decline in global coal use in 2020.



Annual change in coal demand, 1971-2020³

² IEA, *Changes in coal-fired power generation capacity by region, 2019*, IEA, Paris https://www.iea.org/data-and-statistics/charts/changes-in-coal-fired-power-generation-capacity-by-region-2019

³ IEA, Annual change in coal demand, 1971-2020, IEA, Paris https://www.iea.org/data-and-statistics/charts/annual-change-in-coal-demand-1971-2020

Existing Criteria for Divestment / Restrictions of Thermal Coal Companies:

The existing criteria used to guide SFERS' divestment and restriction of further investment in companies with thermal coal activities is as follows:

The San Francisco Employees Retirement System (SFERS) shall not invest in public securities of companies, regardless of country of domicile, if the company:

- a. Derives the majority (greater than 50%) of group revenues from thermal coal activities; or
- b. Derives between 10% and 50% of group revenues from thermal coal activities and has not announced plans to substantially reduce or cease its thermal coal activities.

where:

- Thermal coal activities include the mining or production of thermal coal (including lignite, bituminous coal, and anthracite coal) for sale to external parties.
- Thermal coal activities do not include the mining or production of metallurgical coal (aka coking coal), which is used for steelmaking.

Review of Companies Meeting Restriction Criteria:

SFERS utilizes its relationship with MSCI ESG Research LLC to obtain data on companies involved in thermal coal production. Staff used this information as well as additional resources to contemplate updates to the thermal coal companies subject to SFERS investment restriction.

There are currently 42 companies on SFERS' restricted list due to their thermal coal involvement. MSCI ESG Research confirmed that 29 of these companies each continued to generate greater than 10% of revenue from thermal coal and no information was found that indicated any company has communicated plans to exit from its thermal coal activities. For the remaining 13 companies on SFERS' current restricted list, MSCI has ceased providing coverage of thermal coal activities, and no information was found that indicated any company continues to be engaged in thermal coal activities, and no information was found that indicated any company has communicated plans to exit from these activities.

Two companies, Cloud Peak Energy and Foresight Energy entered bankruptcy during the past one-year period. Staff recommends that the companies remain on the restricted list since they may issue debt securities.

The following additional companies were identified with MSCI data as having more than 10% of revenues from thermal coal mining and thus warranting Staff review:

Company	Thermal Coal Revenues (% FY19)	Analysis and Comments
		Yankuang Group is a State-Owned-Enterprise (SOE) engaged in engaged in coal mining and sales (thermal and metallurgical), coal chemicals, power generation, aluminum production, and machinery manufacturing. It is the parent company of Yanzhou Coal Mining Company Limited, which is currently on SFERS' restricted list. Yankuang is
Yankuang		headquartered in Zoucheng City, Shandong Province, China. It reports coal resources of
Group Co.,		more than 40 billion tons with mines located in Shandong, Shaanxi and Inner Mongolia,
Ltd	22.11%	Guizhou, Xinjiang and Australia.

Table 1. Companies Reviewed for Thermal Coal Activity, 2020

Jastrzebska Spolka Weglowa Spolka Akcyjna (JSW)	12.45%	JSW is a Polish coal mining group with a production mix that is mainly metallurgical coal. Staff previously reviewed JSW's long term strategy around thermal (steam) coal, which stated that it "plans to reduce steam coal production from approx. 26% to approx. 15% by 2030." Staff did not recommend restriction of JSW in 2019 with the intention to continue monitoring JSW's transition away from thermal coal. Thermal coal remained approx. 30% of JSW's production on a tonnage basis and accounted over 10% of revenue ⁴ . No evidence was found that the company announced any specific plans to reduce its thermal coal production in the near term.
South32 Limited	15.78%	South32 is a diversified mining company seeking divestment from thermal coal. As Staff previously reviewed in 2019, it has placed its South African coal mining operations in a stand-alone business and initiated a sale process. The transaction was approved in November 2019, and the company reported that with divestment is on-track for completion in H1 FY21, subject to the satisfaction of a number of material conditions. Remaining coal operations are in Australia and relate to metallurgical coal.
Contura Energy, Inc.	23.29%	Contura is a Tennessee-based operator of both thermal and metallurgical mines in West Virginia, Virginia and Pennsylvania. Contura in 2018 purchased Alpha Natural Resources (the companies previously split during bankruptcy in 2015). On August 7, 2020 Contura said it plans to become a pure-play metallurgical company and expects to be out of the thermal coal business by the end of 2022. "We recognize that the world is transitioning toward an economy that relies less on fossil fuels for power generation, and we, therefore, have accelerated our strategic exit from thermal coal mining," said CEO David Stetson on the Q2 2020 call.
PT Indonesia Asahan Aluminium (Persero)	27.09%	PT Indonesia Asahan Aluminium (Persero) or "Inalum" is an Indonesian state-owned company specialized in aluminum smelting. The company owns 65.93% of PT Bukit Asam, a company currently on SFERS' restricted list.
African Rainbow Minerals Ltd.	12.28%	African Rainbow Minerals (ARM) is a South African-based mining company with interests in coal, copper, gold, platinum, and ferrous minerals. Staff review ARM's activities in 2019 when the company was on the cusp of the 10% thermal coal mining revenue threshold based on FY2018 data. No information was found that indicates that the company has plans to exit from its thermal coal business activities.

Based on the above analysis, Staff recommends adding Yankuang Group Co., Ltd, Jastrzebska Spolka Weglowa Spolka Akcyjna (JSW), PT Indonesia Asahan Aluminium (Persero), and African Rainbow Minerals Ltd. to the list of restricted companies. As of 6/30/20 SFERS had no direct exposure to any of these four companies.

Staff does not recommend adding South32 Limited or Contura Energy, Inc. to the list of restricted companies because both companies have communicated plans to exit from thermal coal activities in a timebound manner.

Other Notable Companies

There are 56 companies in the MSCI database with less than 10% of revenue from thermal coal mining, with 46 of these companies having less than 5% of revenue from the segment. Following includes commentary of four companies of note within the set of 56 companies.

Anglo American

Staff previously reviewed Anglo American's thermal coal activities which are comprised of business in South Africa and Colombia. For FY2019, Anglo American's thermal coal revenue fell below 10%

⁴ https://www.jsw.pl/en/investors-relations/presentations-and-webcasts/presentations-and-factsheets/presentations-2019

according to MSCI ESG Research and the company reported that thermal coal contributed to 1% of group underlying EBIDTA. On the Q2 2020 earning call, CEO Mark Cutifani said the company plans to exit the thermal coal market through a demerger in two to three years. This will include its South African operations as well as its Cerrejón operation in Colombia (in which it is a one-third partner with BHP and Glencore). Cutifani said the company had reduced its thermal coal footprint by 55% and was well on the way to achieve its exit target.

CIMIC

Staff previously reviewed the business activities of CIMIC Group Limited, a diversified engineering services and construction company based in Australia. CIMIC provides services to the coal mining industry through its subsidiary, Thiess. These services are contracted and involve mining operations, construction of infrastructure and maintenance of equipment. While these revenue streams could decrease with low coal prices and falling production, CIMIC itself generally does not own the long-term mining assets and therefore arguably has less exposure to stranded asset risk.

BHP

On August 18, 2020 BHP company announced its intention to divest all thermal coal assets within two years, specifically New South Wales Energy Coal and its one-third stake in Cerrejon (Colombia). At the same time, BHP said it intends to sell its 80% interest in BHP Mitsui Coal, or BMC, a metallurgical (coking) coal operation in Queensland.

Glencore

Glencore does not have specific plans to divest from thermal coal in the immediate future. However, in February 2019, the company announced that it was taking significant steps to address climate risks following engagement with the Climate Action 100+ investor initiative. This includes (1) a Paris Agreement aligned strategy and capital allocation process and disclosure of such to investors annually, (2) Public long-term Scope 1 and Scope 2 emissions reductions targets, (3) a review of progress on climate each year in its Annual Report, (4) Alignment with Taskforce on Climate-related Financial Disclosures (TCFD) recommendations, and (5) A review of corporate climate change lobbying and trade group memberships.

In addition, the company said that it will not grow its capacity to produce coal beyond 2018 levels around 150 million tons per year.

Glencore stated in its 2020 first half update that global thermal coal demand has declined by 8.5% year on year during the first half of 2020. This has resulted in temporary shutdowns at its mines in Queensland and New South Wales.

Historical Performance Impact:

SFERS has licensed custom indices to approximate the performance impact on the total fund due to restricting investment in thermal coal companies. The methodology and limitations of this approach are detailed in a separate Board report.

As shown below, SFERS decision to restrict its managers from investing in thermal coal companies has negligible measurable impact since 2018.

Table 2. Custom Index Relative Return	s and Volatilit	y - Total	returns	(net dividends) in USD
		10.0			

Index Name	Restriction	Cumulative	Annualized	Annualized	Dollar
	Weighting*	Return**	Return**	Volatility**	Impact
ACWI IMI ex Thermal Coal	0.06%	+0.04%	0.01%	0.00%	+\$3.1m

* Weightings of restricted stocks in the generic MSCI ACWI IMI Index at June 30, 2020.

** Relative returns and volatility are against the MSCI ACWI IMI Index from custom index inception (May 31, 2017) through to June 30, 2020.

Source: MSCI. Refer to disclaimer below.

ACWI IMI ex Thermal Coal Rolling 12 Month Relative Returns

0.04% 0.03% 0.02% 0.01% 0% -0.01% 07/2018 10/2018 01/2019 04/2019 07/2019 10/2019 01/2020 04/2020 07/2020

Quant Analytics - Rolling Relative Return (12M)

MSCI ACWI Investable Market TR Net USD

Versus MSCI ACWI IMI - total returns (net dividends) in USD.

Source: MSCI. The MSCI data is comprised of a custom index calculated by MSCI for, and as requested by, SFERS. The MSCI data is for internal use only and may not be redistributed or used in connection with creating or offering any securities. financial products or indices. Neither MSCI nor any other third party involved in or related to compiling, computing or creating the MSCI data (the "MSCI Parties") makes any express or implied warranties or representations with respect to such data (or the results to be obtained by the use thereof), and the MSCI Parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to such data. Without limiting any of the foregoing, in no event shall any of the MSCI Parties have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

Recommendation:

Based on the review of information, Staff has the following recommendations:

- Add the following four companies to the restricted list based on the criteria for divestment:
 - Yankuang Group Co., Ltd
 - Jastrzebska Spolka Weglowa Spolka Akcyjna (JSW)
 - PT Indonesia Asahan Aluminium (Persero)
 - African Rainbow Minerals Ltd.
- Continue investment in South32 Ltd., Contura Energy, and Anglo American based on the companies' announced divestment plans and monitor progress towards a sale of assets.
- Continue to track activities at companies such as Glencore for which thermal coal revenues are extremely small but which are significant producers of thermal coal on an absolute tonnage basis.

If the Board agrees with Staff's recommendation, the following motions can be made:

Move that the San Francisco Employees' Retirement System adopt the Thermal Coal Companies restricted list presented in Appendix B of Staff's Memorandum which reflects the additions of companies as described in Staff's Memorandum.

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Appendix A

List of Thermal Coal Companies, Reflecting Recommended Changes from 2019 to 2020

Consol Energy Inc.	Arch Coal, Inc.
Peabody Energy Corporation	Hallador Energy
Consol Coal Resources LP	Cloud Peak Energy
Westmoreland Coal	Agritrade Resources Limited
Alliance Resource	Exxaro Resources Limited
Whitehaven Coal Limited	Indo Tambangraya Megah Tbk PT
Gujarat Mineral Development Corp., Ltd.	Washington H. Soul Pattinson and Company Ltd
Banpu Public Company Limited	Bumi Resources (PT Bumi Resources Tbk)
Delta Dunia Makmur (PT Delta Dunia Makmur Tbk)	Inner Mongolia Yitai Coal Co., Ltd.
Bukit Asam (Persero) Tbk PT	United Tractors (PT United Tractors Tbk)
Yanzhou Coal Mining Company Limited	Coal India, Ltd.
PT Adaro Energy Tbk	Bogdanka (Lubelski Wegiel Bogdanka SA)
Harum Energy (PT Harum Energy Tbk)	China Shenhua Energy Company Limited
New Hope Corporation Ltd	China Coal Energy Company Limited
Yang Quan Coal Industry (Group) Co., Ltd.	DMCI Holdings INC.
GEO Energy Resource Ltd	Guanghui Energy Co., Ltd.
Foresight Energy LP	Shanxi Xishan Coal and Electricity Power Co., Ltd.
Semirara Mining and Power Corporation	Jizhong Energy Resources Co., Ltd.
Shanxi Lu'an Environmental Energy Dev. Co., Ltd	PT Astra International Tbk
Shaanxi Coal Industry Company Limited	Huadian Power International Corporation Limited
PT Indika Energy Tbk	Jardine Cycle & Carriage Limited
Jastrzebska Spolka Weglowa Spolka Akcyjna (JSW)	PT Indonesia Asahan Aluminium (Persero) (aka
	Inalum)
Yankuang Group Co., Ltd	African Rainbow Minerals Ltd

Updated: October 14, 2020

Note 1: MSCI ESG Research data was used to create the information provided.

Note 2: Companies in red font indicate those that have been added to the restricted list.

Appendix B

List of Thermal Coal Companies, Recommended for 2020 Adoption

Consol Energy Inc.	Arch Coal, Inc.
Peabody Energy Corporation	Hallador Energy
Consol Coal Resources LP	Cloud Peak Energy
Westmoreland Coal	Agritrade Resources Limited
Alliance Resource	Exxaro Resources Limited
Whitehaven Coal Limited	Indo Tambangraya Megah Tbk PT
Gujarat Mineral Development Corp., Ltd.	Washington H. Soul Pattinson and Company Ltd
Banpu Public Company Limited	Bumi Resources (PT Bumi Resources Tbk)
Delta Dunia Makmur (PT Delta Dunia Makmur Tbk)	Inner Mongolia Yitai Coal Co., Ltd.
Bukit Asam (Persero) Tbk PT	United Tractors (PT United Tractors Tbk)
Yanzhou Coal Mining Company Limited	Coal India, Ltd.
PT Adaro Energy Tbk	Bogdanka (Lubelski Wegiel Bogdanka SA)
Harum Energy (PT Harum Energy Tbk)	China Shenhua Energy Company Limited
New Hope Corporation Ltd	China Coal Energy Company Limited
Yang Quan Coal Industry (Group) Co., Ltd.	DMCI Holdings INC.
GEO Energy Resource Ltd	Guanghui Energy Co., Ltd.
Foresight Energy LP	Shanxi Xishan Coal and Electricity Power Co., Ltd.
Semirara Mining and Power Corporation	Jizhong Energy Resources Co., Ltd.
Shanxi Lu'an Environmental Energy Dev. Co., Ltd	PT Astra International Tbk
Shaanxi Coal Industry Company Limited	Huadian Power International Corporation Limited
PT Indika Energy Tbk	Jardine Cycle & Carriage Limited
Jastrzebska Spolka Weglowa Spolka Akcyjna (JSW)	PT Indonesia Asahan Aluminium (Persero) (aka
	Inalum)
Yankuang Group Co., Ltd	African Rainbow Minerals Ltd

Updated: October 14, 2020

Note 1: MSCI ESG Research data was used to create the information provided.