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The Truth of GPIF's Investment in Coal Companies¹

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Introduction

On December 2015, United Nations Climate Change Conference, COP 21 was held in Paris and negotiated the Paris Agreement on the reduction of climate change. This agreement has set a goal of limiting the global average temperature increase to well below 2 degrees Celsius (°C) compared to pre-industrial levels, and also “pursue efforts to” limit the temperature increase to 1.5 °C.²

The Carbon Tracker, non-profit think tank in the UK, announced that top 200 of global major fossil fuel companies have a pro-rate allocation of the carbon budget as amount to around 225-269 GtCO₂ of the 762 GtCO₂ currently booked as reserves in order to avoid a rise in global warming of more than 2 °C above pre-industrial levels. Their allocation of the carbon budget will be between 0 and 131 GtCO₂ with the possibility of revising this down to 1.5 °C.³ The risk holding assets that have suffered from unanticipated or premature write-down is referred to as of “stranded assets”.

Amid mounting concerns about risk of stranded assets, more investors start considering divestment (decide to withhold their capitals) from fossil fuel companies. By December 2016, a total of 688 institutions committed to divestments which have reached over \$5 trillion in assets.⁴ Especially, the

¹ This survey is supported by the Patagonia environmental grants, which is coordinated by Tides Foundation.

² “Paris Agreement (Japanese translation)” Foreign Ministry
<http://www.mofa.go.jp/mofaj/gaiko/kankyo/kiko/>

³ Unburnable Carbon 2013:Wasted capital and stranded assets, Carbon Tracker
<http://www.carbontracker.org/wp-content/uploads/2014/09/Unburnable-Carbon-2-Web-Version.pdf>

⁴ Arabella Advisors 「The Global Fossil Fuel Divestment and Clean Energy Investment Movement」
The Global Fossil Fuel Divestment and Clean Energy Investment Movement, Arabella Advisors

number of divestment from coal which emits more carbon dioxide is growing comparing with divestment from other fossil fuels.

Already there are several public pension funds have announced fossil fuel divestment: the Government Pension Fund of Norway, the California Public Employees' Retirement System (CalPERS), the California State Teachers' Retirement System (CalSTRS), and the Second Swedish National Pension Fund (AP2).⁵

On the other hands, Japanese Government Pension Investment Fund (GPIF), the world's largest pension fund, signed up to the United Nations-supported Principles for Responsible Investment (PRI) in 2015 and started demonstrating a commitment to invest along Environmental, Social and Governance (ESG) principles. However, GPIF has not clearly indicated its stance regarding the climate change yet.⁶

This study aims to define GPIF's current investment amount in coal companies. We, JACSES, hope this study helps opinion-forming toward divestment decision-making with GPIF's understanding the risk of stranded assets on coal companies.

Method

GPIF released its investment result as of March 2015 in July 2016, and up-dated result as of March 2016 in November 2016.⁷ We use the data of March 2016 as an immediate data for this study. We shed light on the GPIF's investment amount in coal companies through following two methods.

- Method 1: Conducted search GPIF's investment (shareholding and bond holding) in 90 coal companies defined by the Government Pension Fund of Norway (although the Government Pension Fund excludes companies derive 30 per cent (%) or more of their income from thermal coal or base 30% or more of their operations on thermal coal, we consider both exclusion and under observation companies for this study).⁸ The Government Pension Fund of Norway is adopting the most visionary approach for coal divestment among public funds indicating divestment policy.
- Method 2: Conducted search GPIF's investment (shareholding and bond holding) in 100 coal companies listed by the Carbon Underground 200 Index.⁹ This index is frequently used as a

http://www.arabellaadvisors.com/wp-content/uploads/2016/12/Global_Divestment_Report_2016.pdf

⁵ The report 「金融安定と気候変動に関する調査研究」 (written in Japanese) published by the Japan Research Institute, Limited

<https://www.jri.co.jp/page.jsp?id=28393>

⁶ The report of GPIF Stewardship Activities in 2016 (Summary Report in English)

http://www.gpif.go.jp/en/topics/pdf/20170203_report_of_stewardship_activities_2016.pdf

⁷ GPIF, Fund investment Operations

<http://www.gpif.go.jp/operation/state/index.html> (in Japanese)

<http://www.gpif.go.jp/en/fund/> (in English)

⁸ Norges Bank "Observation and Exclusion of Companies"

<https://www.nbim.no/en/responsibility/exclusion-of-companies/>

⁹ Fossil Fuel Indexes "The Carbon Underground 200™-2016 Edition"

<http://fossilfreeindexes.com/research/the-carbon-underground/>

reference for divestment by corporate investors and foundations.

- Method 3: Mix of method 1 and 2 (duplicated companies are combined)

The main difference between method 1 and 2 is that method 1 includes both coal mining companies and thermal power generation companies. Method 2, by contrast, only includes coal mining companies. In addition to say, method 1 covers companies with having high rate of coal business share but method 2 covers companies with having large amount of coal reserve. Therefore, it is important to note some electric utility companies such as Tokyo Electric Power Company (TEPCO), Chubu Electric Power and Kansai Electric Power Co. (KEPCO) are not covered in both methods. Because even their coal generation capacities are indispensably big, these shares take less than 30% of their total capacity with greater percentage of non-coal generations.

Result of the Study

As a result of this study, GPIF's investment amount (aggregate market price) in coal companies is JPY 882.6-1,795.5 billion (USD 8 -16 billion), as of March 2016. Details are listed in Appendix 1, 2, and 3.

Table 1. GPIF's investment in coal companies (As of March 2016).

	Method 1: GPIF's investment in coal companies defined by the Government Pension Fund of Norway.	Method 2: GPIF's investment in 100 coal companies listed by the Carbon Underground 200 Index.	Method 3: Mix of method 1 and 2 (duplicated companies are combined).
Shareholding	JPY 505 Billion	JPY 835.9 Billion	JPY 1,314.8 Billion
Bond holding	JPY 377.6 Billion	JPY 103.9 Billion	JPY 480.7 Billion
Total	JPY 882.6 Billion	JPY 939.8 Billion	JPY 1,795.5 Billion

Recommendation to the GPIF

In accord with above result, Japan Center for a Sustainable Environment and Society (JACSES) recommend GPIF should:

1. Conduct search on its investment, shareholding and bond holding, in coal companies and open that result;
2. Evaluate the potential risk of stranded assets of coal companies and open that result; and
3. Establish policy for divestment from coal companies.

Appendix 1. GPIF's investment in coal companies defined by the Government Pension Fund of Norway (Unit: JPY)

	Company name	Shareholding (aggregate market price)	Bond holding (aggregate market price)
First tranche of exclusion companies	Aboitiz Power Corp	1,028,914,787	
	AES Corp/VA	6,186,335,698	
	AES Gener SA	1,020,475,165	
	ALLETE Inc		
	Ameren Corp, including bonds issued by Union Electric Co (d/b/a Ameren Missouri)	10,064,962,318	
	American Electric Power Co Inc, including bonds issued by Appalachian Power Co	25,928,315,387	
	Indiana Michigan Power Co		
	Capital Power Corp		
	CESC Ltd	3,993,752	
	China Coal Energy Co Ltd	1,307,986,988	
	China Power International Development Ltd	1,404,783,195	
	China Resources Power Holdings Co Ltd	2,853,288,907	
	China Shenhua Energy Co Ltd	4,876,970,771	
	CLP Holdings Ltd	18,829,599,399	
	Coal India Ltd	2,836,268,139	
	CONSOL Energy Inc		253,802,613
	Datang International Power Generation Co Ltd	647,061,757	
	Drax Group PLC		
	DTE Energy Co	18,363,035,654	
	Dynegy Inc		4,023,964,615
	E.CL SA	7,058,648	
	Exxaro Resources Ltd	822,219,015	
	FirstEnergy Corp	12,761,696,030	514,724,364
	Gujarat Mineral Development Corp Ltd		
	Hokkaido Electric Power Co Inc	12,531,338,400	52,930,568,409
	Huadian Power International Corp Ltd	899,358,517	
	Huaneng Power International Inc	3,126,498,095	
	IDACORP Inc		

	Lubelski Wegiel Bogdanka SA		
	MGE Energy Inc		
	New Hope Corp Ltd		
	NTPC Ltd	1,858,725,602	
	Okinawa Electric Power Co Inc/The	5,483,145,000	4,363,309,563
	Peabody Energy Corp		
	PNM Resources Inc, including bonds issued by		
	Public Service Co of New Mexico		
	Public Power Corp SA	286,521,895	
	Reliance Infrastructure Ltd	2,898,959	
	Reliance Power Ltd	12,309,098	
	Shikoku Electric Power Co Inc	20,803,551,700	18,714,147,595
	Tata Power Co Ltd	804,362,857	
	TransAlta Corp		
	WEC Energy Group Inc, including bonds issued by	15,224,030,225	806,068,714
	Wisconsin Electric Power Co		
	Whitehaven Coal Ltd		
	Xcel Energy Inc, including bonds issued by	21,262,695,814	
	Northern States Power Co MN		
	Public Service Co of Colorado		
	Southwestern Public Service Co		
	Yanzhou Coal Mining Co Ltd	888,855,061	
Second tranche of exclusion companies	Alliant Energy Corp	6,830,857,343	
	Chugoku Electric Power Co Inc/The	32,079,904,000	57,912,439,215
	DMCI Holdings Inc	849,835,581	
	Electric Power Development Co Ltd	56,639,871,500	53,887,725,170
	Electricity Generating PCL		
	Emera Inc		
	Empire District Electric Co		
	Great Plains Energy Inc		
	Guangdong Electric Power Development Co Ltd		
	Hokuriku Electric Power Co	21,763,566,000	22,299,159,836
	Inner Mongolia Yitai Coal Co Ltd	13,904,836	
	Jastrzebska Spolka Weglowa SA		

	NRG Energy Inc	5,072,543,113	2,305,855,947
	Tenaga Nasional Bhd	9,635,685,325	
	Westar Energy Inc		
Second tranche of companies placed under observation	CMS Energy Corp	10,459,213,957	329,630,066
	EDP Energias de Portugal SA		
	Endesa SA	4,898,638,685	
	Glow Energy PCL	580,340,761	
	Kyushu Electric Power Co Inc	35,706,069,000	82,925,151,020
	OGE Energy Corp	4,452,726,415	
	Pinnacle West Capital Corp	6,549,190,812	
	SCANA CORP	8,355,769,562	
	Southern Co/The	41,730,184,569	
	Talen Energy Corp		594,972,298
	Tohoku Electric Power Co Inc	50,615,365,800	75,726,443,935
Third tranche of exclusion companies	CEZ AS	2,998,957,771	
	Eneva SA		
	Great River Energy		
	HK Electric Investments & HK Electric Investments	2,312,376,504	
	Huadian Energy Co Ltd		
	Korea Electric Power Corp	11,340,635,014	
	Malakoff Corp Bhd		
	Otter Tail Corp		
	PGE Polska Grupa Energetyczna SA		
	SDIC Power Holdings Co Ltd		
Third tranche of companies placed under observation	NorthWestern Corp		
	Portland General Electric Company		
Total		505,012,893,381	377,587,963,360

Appendix 2. GPIF's investment in 100 coal companies listed by the Carbon Underground 200 Index (Unit: JPY)

Company name	Shareholding (aggregate market price)	Bond holding (aggregate market price)
Coal India	2,836,268,139	
Adani Enterprises	2,886,098,430	
China Shenhua Energy	4,876,970,771	
Inner Mongolia Yitai Coal	13,904,836	
China Coal Energy	1,307,986,988	
Mechel		
Exxaro Resources	822,219,015	
Public Power	286,521,895	
Glencore	40,122,175,787	2,495,872,912
Peabody Energy		
BHP Billiton	55,678,262,382	4,494,104,614
Evraz		86,889,295
Mitsubishi	221,752,559,800	32,612,896,608
BUMI Resources		
Bukit Asam (Persero)		
Yanzhou Coal Mining	888,855,061	
Shanxi Xishan Coal and Electricity		
Rio Tinto	40,378,368,650	2,367,261,989
Anglo American	9,766,610,646	4,279,758,023
Kuzbasskaya Toplivnaya		
Open Joint-Stock Rospadskaya		
DaTong Coal Industry		
Alliance Resource Partners		
Arch Coal		
Jindal Steel & Power	14,350,698	
China Cinda Asset Management	2,465,987,229	
Alpha Natural Resources		
Vale	10,252,828,667	2,316,408,456
Severstal	89,086,741	
Westmoreland Coal		
Teck Resources	3,353,374,378	160,608,276
Jastrzębska Spółka Węglowa		

Lu'an Environmental Energy		
Tata Steel	1,350,634,125	
Adaro Energy	592,153,659	
AGL Energy	7,946,954,297	
CONSOL Energy Inc.		253,802,613
Cloud Peak Energy		
South32	4,887,304,183	
Sasol	14,228,349,250	488,788,995
Yancoal Australia		
Beijing Haohua Energy Resource		
Whitehaven Coal		
CCX Carvão da Colômbia		
New Hope		
ITOCHU	172,562,620,400	28,202,632,098
NACCO Industries		
Resource Generation		
Huolinhe Coal		
PGE		
Neyveli Lignite		
Shanghai Datun Energy Resources		
Tongchuan Mining		
Coal of Africa		
Aspire Mining		
Indika Inti Corpindo		
Datang International Power Generation	647,061,757	
PT. Golden Energy Mines		
Mitsui	180,470,559,500	22,622,993,808
Bandanna Energy		
Berau Coal Energy		
Kangaroo Resources		
Open Joint Stock Novolipetsk Steel		
Wesfarmers	28,793,154,368	364,062,725
New World Resources		
Meijin Energy		
Mongolian Mining		
United RUSAL		
Jizhong Energy		

ALLETE		
Moreton Resources		
Monnet Ispat & Energy		
Sable Mining Africa		
Vedanta	1,187,251,346	
ArcelorMittal	6,473,746,179	2,617,727,430
Coal Energy		
Shanxi Asian American Daning Energy		
Hwange Colliery		
Energy Australia		
Steel Authority of India		
Indo Tambangraya Megah (Banpu)		
PT. Bayan Resources		
LG International		
Vimetco		
Kinetic Mines and Energy		
Hallador Energy		
Southern Copper	4,514,147,110	
Black Hills		
Matra Eromu ZRT (RWE Power)		
Huadian Power International	899,358,517	
FirstEnergy	12,761,696,030	514,724,364
Prairie Mining		
Tata Power	804,362,857	
African Rainbow Minerals	10,074,523	
Rhino Resource Partners		
Feishang Anthracite Resources		
Golden Eagle Energy		
Semirara Mining and Power		
Barmer Lignite Mining		
Up Energy Development		
Total	835,921,858,214	103,878,532,206

Appendix 3. GPIF's investment in coal companies under method 3 (mix of method 1 and 2, duplicated companies are combined) (Unit: JPY)

Company name	Shareholding (aggregate market price)	Bond holding (aggregate market price)
Aboitiz Power Corp	1,028,914,787	
Adani Enterprises	2,886,098,430	
Adaro Energy	592,153,659	
AES Corp/VA	6,186,335,698	
AES Gener SA	1,020,475,165	
African Rainbow Minerals	10,074,523	
AGL Energy	7,946,954,297	
Alliant Energy Corp	6,830,857,343	
Ameren Corp, including bonds issued by	10,064,962,318	
American Electric Power Co Inc, including bonds issued by	25,928,315,387	
Anglo American	9,766,610,646	4,279,758,023
ArcelorMittal	6,473,746,179	2,617,727,430
BHP Billiton	55,678,262,382	4,494,104,614
CESC Ltd	3,993,752	
CEZ AS	2,998,957,771	
China Cinda Asset Management	2,465,987,229	
China Coal Energy Co Ltd	1,307,986,988	
China Power International Development Ltd	1,404,783,195	
China Resources Power Holdings Co Ltd	2,853,288,907	
China Shenhua Energy Co Ltd	4,876,970,771	
Chugoku Electric Power Co Inc/The	32,079,904,000	57,912,439,215
CLP Holdings Ltd	18,829,599,399	
CMS Energy Corp	10,459,213,957	329,630,066
Coal India Ltd	2,836,268,139	
CONSOL Energy Inc		253,802,613
Datang International Power Generation Co Ltd	647,061,757	
DMCI Holdings Inc	849,835,581	
DTE Energy Co	18,363,035,654	
Dynegy Inc		4,023,964,615
E.CL SA	7,058,648	
Electric Power Development Co Ltd	56,639,871,500	53,887,725,170

Endesa SA	4,898,638,685	
Evraz		86,889,295
Exxaro Resources Ltd	822,219,015	
FirstEnergy Corp	12,761,696,030	514,724,364
Glencore	40,122,175,787	2,495,872,912
Glow Energy PCL	580,340,761	
HK Electric Investments & HK Electric Investments	2,312,376,504	
Hokkaido Electric Power Co Inc	12,531,338,400	52,930,568,409
Hokuriku Electric Power Co	21,763,566,000	22,299,159,836
Huadian Power International Corp Ltd	899,358,517	
Huaneng Power International Inc	3,126,498,095	
Inner Mongolia Yitai Coal Co Ltd	13,904,836	
ITOCHU	172,562,620,400	28,202,632,098
Jindal Steel & Power	14,350,698	
Korea Electric Power Corp	11,340,635,014	
Kyushu Electric Power Co Inc	35,706,069,000	82,925,151,020
Mitsubishi	221,752,559,800	32,612,896,608
Mitsui	180,470,559,500	22,622,993,808
NRG Energy Inc	5,072,543,113	2,305,855,947
NTPC Ltd	1,858,725,602	
OGE Energy Corp	4,452,726,415	
Okinawa Electric Power Co Inc/The	5,483,145,000	4,363,309,563
Pinnacle West Capital Corp	6,549,190,812	
Public Power Corp SA	286,521,895	
Reliance Infrastructure Ltd	2,898,959	
Reliance Power Ltd	12,309,098	
Rio Tinto	40,378,368,650	2,367,261,989
Sasol	14,228,349,250	488,788,995
SCANA CORP	8,355,769,562	
Severstal	89,086,741	
Shikoku Electric Power Co Inc	20,803,551,700	18,714,147,595
South32	4,887,304,183	
Southern Co/The	41,730,184,569	
Southern Copper	4,514,147,110	
Talen Energy Corp		594,972,298
Tata Power Co Ltd	804,362,857	
Tata Steel	1,350,634,125	

Teck Resources	3,353,374,378	160,608,276
Tenaga Nasional Bhd	9,635,685,325	
Tohoku Electric Power Co Inc	50,615,365,800	75,726,443,935
Vale	10,252,828,667	2,316,408,456
Vedanta	1,187,251,346	
WEC Energy Group Inc, including bonds issued by	15,224,030,225	806,068,714
Wesfarmers	28,793,154,368	364,062,725
Xcel Energy Inc, including bonds issued by	21,262,695,814	
Yanzhou Coal Mining Co Ltd	888,855,061	
Total	1,314,789,545,729	480,697,968,589