



WWF

RESPONSIBLE
INVESTMENTS

2022



ALIGNING THE GLOBAL ENERGY TRANSITION WITH RESPONSIBLE INVESTMENT STRATEGIES

WWF-SINGAPORE ENERGY TRANSITION FRAMEWORK ASSESSMENT REPORT

ACKNOWLEDGMENTS

Authors: Aveline Chan, Michelle Loi

WWF-Singapore would like to thank the following WWF contributors for their valuable and insightful inputs for this report:

Kristina Anguelova, Sergiu Jiduc, Tim Rice

Contacts:

Michelle Loi, Vice President

WWF-Singapore - mloi@wwf.sg

This report is part of:

[Asia Sustainable Finance Initiative](#)



Production and design: Raphael Albinati

Published in February 2023 by WWF – World Wide Fund for Nature (Singapore) Limited

Any reproduction in full or part must mention the title and credit the above-mentioned publisher as the copyright owner.

WWF is one of the world’s most respected and experienced conservation organisations, with over 5 million supporters and a global network active in more than 100 countries. WWF’s mission is to stop the degradation of the planet’s natural environment and to build a future in which people live in harmony with nature. WWF has worked with the finance sector for more than a decade via innovative collaborations that seek to integrate ESG risks and opportunities into mainstream finance so as to redirect financial flows to support the global sustainable development agenda. Our approach to sustainable finance leverages WWF’s conservation expertise as well as our partnerships with companies on key issues such as water, energy, climate and food to drive sustainability. Positioned at the cutting-edge of sustainable finance internationally, WWF contributes directly to leading initiatives, including the European Commission’s Platform on Sustainable Finance and the development of an international green bonds standard. WWF also works directly with some of the largest asset owners in the world on decarbonizing investment portfolios. This has allowed us to strengthen lending and investment criteria for key industry sectors, provide insights and data on environmental and social risks, fulfil critical research gaps, help unlock innovations in sustainable finance products and convene key stakeholders to progress the sustainable finance agenda.

Text © WWF 2023



CONTENTS

EXECUTIVE SUMMARY	4
WWF-SINGAPORE ENERGY TRANSITION FRAMEWORK FOR ASSET MANAGERS	7
KEY FINDINGS AND RECOMMENDATIONS	8
IMPORTANCE OF A STANDALONE ENERGY SECTOR POLICY STATEMENT	8
EXCLUSIONS SHOULD IDEALLY BE APPLIED PORTFOLIO WIDE	8
FRAMEWORK POSITION ON COAL	9
FRAMEWORK POSITION ON OIL AND GAS	10
FRAMEWORK POSITION ON UNCONVENTIONAL OIL AND GAS EXTRACTION	11
FRAMEWORK POSITION ON RENEWABLES	12
IMPORTANCE OF EXPECTATIONS IN ENGAGEMENT ACTIVITIES	13
ENERGY-SECTOR SPECIFIC DISCLOSURES ON RISK AND ESG PERFORMANCE MEASUREMENT	14
CONCLUSION	16
APPENDICES	17
APPENDIX 1: ASSET MANAGERS ASSESSED	17
APPENDIX 2: ENERGY TRANSITION FRAMEWORK (ASSET MANAGERS SCORE BY REGION)	18

EXECUTIVE SUMMARY

Climate change and biodiversity loss are two major environmental issues that are closely interlinked and have the potential to create severe consequences for the planet and people. The latest statistics reveal alarming trends, including rising global temperatures, an increase in the frequency and intensity of extreme weather events, and a rapid average decline of 69% in species populations since 1970. Addressing these emergencies collectively and swiftly is crucial.

Asset managers are increasingly attempting to quantify the risks from climate change and biodiversity loss, which are significant financial risks to most industries, affecting the risk profile of investments exposed to these sectors. However, it is foreseeable that the same risk in a particular sector or company may be quantified differently by different asset managers, leading to different investment decision outcomes. Furthermore, climate risks, often perceived as longer-term in nature, may be deprioritized against other more immediate market concerns, despite science pointing to the need for immediate action to address the longer-term climate crisis.

Several recent examples have shown that asset managers who have made exaggerated or misleading sustainability disclosures and claims will potentially face significant and immediate commercial damage and legal consequences.



MANAGEMENT OF CLIMATE RISKS - IMPLICATIONS AND IMPLEMENTATION

A new [report](#) from the UN Framework Convention on Climate Change reveals that the current progress from the combined climate pledges of 193 Parties under the Paris Agreement would put us on a trajectory for about 2.5°C of warming by the end of the century. The action behind these collective pledges has remained insufficient to limit global temperature rise to 1.5°C by century's end.

The [energy sector](#) contributes to about 75% of global GHG emissions. To effectively bring global warming back to a 1.5°C pathway, the energy sector must immediately start to decarbonize. Asset managers can use pathways and scenarios to align their portfolios with the Paris Agreement targets, such as the Intergovernmental Panel on Climate Change (IPCC) scenarios. It is a set of possible future pathways for the world's climate and energy systems and is used to explore how different levels of greenhouse gas emissions could impact the Earth's climate in the upcoming decades.

According to a carbon budget calculation for an IPCC scenario with a 50-66% probability of limiting global warming to below 1.5°C, and with limited carbon dioxide removals, [the use of thermal coal](#) should be gradually reduced and eliminated from the energy system by 2030 in OECD/Europe/Russia, and by 2040 globally. Similarly, oil and gas should be phased out by 2040 in OECD/Europe/Russia and by 2050 globally.

To effectively implement net zero targets, asset managers need to ensure that their portfolio is free from fossil fuels following the above IEA timeline. They should also assess and engage with investee companies to reduce their fossil fuels exposure and divest from the relevant companies if time-bound objectives and escalation steps are not yielding positive outcomes. Finally, asset managers should support companies' corresponding transition plans.

The Energy Transition (ET) Framework launched by WWF-Singapore in 2023 assesses the extent to which a panel of 40 asset managers have aligned their energy sector investment practices to the recommended trajectories and timelines for a 1.5°C pathway. This report highlights the key concepts under the ET Framework, explaining the rationale and extent to which they were fulfilled by the panel of asset managers. The report aims to kickstart the process of implementing a credible energy sector transition pathway for an investment portfolio.

WWF-SINGAPORE ENERGY TRANSITION FRAMEWORK FOR ASSET MANAGERS

WWF-Singapore supports asset managers in sustainable investment practices through its assessment tool and framework guideline, [RESPOND](#) - Responsible and Sustainable Portfolios, which includes the setting of responsible investment processes and policies, sustainable investment methodology, the measurement of environmental risks and impacts, stewardship activities and disclosures. RESPOND assesses a panel of 40 asset managers. Out of the 40, 22 asset managers are headquartered in Europe and 18 are headquartered in Asia. The asset managers assessed in RESPOND have to meet the following criteria:

- » Minimum assets under management of US\$200 Billion for European asset managers and US\$20 Billion for Asian asset managers
- » European asset managers are required to have a presence in Asia
- » Asset managers are Principles for Responsible Investment (PRI) signatories

The full ET Framework can be found in the Appendix, together with a tabulation of the results of the 2022 assessment, showing the performance of AMs by region for each segment of the framework. The Framework will progressively be refined in later editions as methodologies, regulatory requirements and data advance the importance of credible transition of the energy sector.

KEY FINDINGS AND RECOMMENDATIONS

1. IMPORTANCE OF A STANDALONE ENERGY SECTOR POLICY STATEMENT

Some key indicators that an asset manager is taking action to decarbonise the energy sector include the disclosure of a dedicated energy sector policy (indicator 2), identifying the separate evaluation, and establishing investment restrictions and engagement processes for each distinct group of fossil fuels. The energy sector is diverse and includes coal, oil and gas, unconventional oil and renewables. Each of these segments may require different exclusionary limits, timelines, and investee engagement strategies.

Based on the ET framework assessment, of the 22 European managers, the vast majority (20) have a distinct energy sector policy (indicator 2) while only 5 out of the 18 Asian managers have such a policy.

RECOMMENDATIONS:

- Asian managers should take steps to set out a standalone energy sector policy as a start to the implementation of a suitable transition pathway for the energy sector of their investment portfolios.
- A separate energy sector policy provides clear direction and facilitates an integrated approach to long-term planning and decision-making, which is critical for identifying and assessing investment opportunities that deliver positive environmental and social outcomes aside from generating financial returns. It will also help with risk management due to regulatory shifts, changing market conditions and technological advancements.

2. EXCLUSIONS SHOULD IDEALLY BE APPLIED PORTFOLIO WIDE

Fossil fuels exclusions and/or thresholds should be applied to each segment of the energy sector. The subsequent sections will elaborate on the recommended exclusions and/or thresholds for each distinct segment of fossil fuels.

For exclusions to be effective and credible, they should be applied across the entire investment portfolio, not just select mandates and funds. During the ET Framework assessment process, findings discovered that only a small group of asset managers have scored points under each indicator requiring exclusions or thresholds. This was largely due to many managers while having disclosed certain exclusions, relating to investments in the energy sector, these exclusions tend to be applied only to selected funds or investment themes. To avoid further climate implications, it is critical that traditional, non-sustainability aligned investment mandates become the exception and exclusions and thresholds be mainstreamed and applied across entire assets under

management. Stronger engagement, regulatory requirements and capacity building, as well as the emergence of more sustainability conscious generations of investment clients are a start to a future with more sustainable investment practices.

RECOMMENDATIONS:

- Fossil fuel exclusions are a key component of many ESG strategies. Applying fossil fuel exclusions portfolio wide helps to ensure that an asset manager’s ESG investing approach is consistent across all of their investments and signals their position on fossil fuels to investors and the market.
- The fossil fuel industry is facing a range of risks, such as regulatory changes, reputational risk, and market volatility. It is also important for exclusion strategies to take into consideration the different energy mix and socio-economic dynamics in emerging markets such as Asia. This can help to deliver better long-term investment outcomes for clients and protect their investments from the negative impacts of the fossil fuel industry.

A. FRAMEWORK POSITION ON COAL

Although the high climate impact from coal is recognised internationally, more remains to be done in terms of its phase out, specifically in Asia. Persistent economic growth and urbanisation in the region has led to growth in energy demand and consumption. Indonesia, a country highly dependent on coal (61%) has also experienced rapid growth in demand, among other Asian countries following this trend.

New thermal coal extraction or processing or power generation activities

Within the ET Framework, we recommend an immediate exclusion of investee companies that are involved in the expansion of **new** thermal coal extraction processing (indicator 17) or power generation activities, or with more than 30% of revenues derived from existing thermal coal assets (indicator 18), including new thermal coal power generating capacity (indicator 22).



Findings:

In our assessment, 10 European managers and 1 Asian manager have applied on an entire portfolio basis, an exclusion of investee companies involved in the expansion of new thermal coal extraction, processing and new thermal coal power generation capacity. 15 European managers and none of the Asian managers have excluded, on an entire portfolio basis, companies with more than 30% revenue exposure to thermal coal. 12 European managers and none of the Asian managers have specifically excluded companies with more than 30% revenue exposure to thermal coal power generation.

Integrated mining

For integrated miners and integrated energy companies (that engage in activities across the energy supply chain of exploration, production, refinement, and distribution of energy), the Framework requires a phase out of integrated mining companies involved in **existing** thermal coal extraction or processing (indicator 21), as well as a phase out of integrated energy companies in **existing** thermal coal power generation and distribution (indicator 23), both by 2030 in OECD/Europe/Russia and by 2040 globally.

Findings:

Under the requirement for the phasing out of existing thermal coal power generation by the stated timeline, only 6 European managers have expressly disclosed their plan to phase out in accordance to these timelines while 4 European managers have expressly stated their plan to phase out of existing thermal coal processing and extraction activities by the above mentioned timelines.

Given the critical nature of thermal coal and the urgency to reduce GHG emissions in alignment with the net zero trajectory, we strongly encourage more asset managers, especially the Asian asset managers to take urgent action. One can reference from the Framework when incorporating exclusions on the expansion of coal-related activities, as well as exclusions on companies with significant revenue exposure to thermal coal, and ensuring that the phasing out of investments with existing coal-related businesses are aligned with net zero trajectories.

B. FRAMEWORK POSITION ON OIL AND GAS

While coal is the single largest source of emissions, the transition from the dependence on oil and gas is essential in achieving a zero emission society. Oil and gas production and use is a major driver for continued emissions.

Studies have shown that the bulk of the carbon budget allocated to oil and gas in the range of IPCC scenarios will be spent by investments that have already been sanctioned. As such, WWF recommends eliminating the emissions from oil and gas production and use as quickly as possible, for both conventional and unconventional oil and gas sources.

For investors this means the following :

- » Adopting policies that require all oil and gas companies in which they invest and/or for which they provide financial services, to align with the 1.5°C threshold.
- » Identifying companies that can be influenced to transition through engagement, but at the same time factor in that the oil and gas sector as it currently stands needs to be phased out in light of climate constraints.
- » Phasing out of oil and gas companies that are the least prepared, or not able or willing to align towards zero-carbon businesses and strategies.



Findings:

The ET Framework recommends that an asset manager excludes or requires thresholds for investments in exploration and development of **new** assets in the oil and gas sector. Only 2 European managers have fulfilled this indicator. This follows with the recommendation to phase out investments in exploration and development of new assets in the oil and gas sector. WWF recommends investors to phase-out all oil & gas investments from their portfolio by 2040 in OECD countries, and by 2050 globally. Within our assessment, 4 European managers have disclosed their plan to phase out investments in new oil and gas assets and activities.

That said, it is heartening to see that in regard to the drilling for Arctic oil, there is more policy coverage. 10 European managers have disclosed exclusions or threshold investments in companies involved in oil and gas-related activities in or near enough to affect the Arctic while none of the Asian managers have a related policy (indicator 7).

C. FRAMEWORK POSITION ON UNCONVENTIONAL OIL AND GAS EXTRACTION

The process of extracting oil and gas from unconventional sources brings about additional environmental damage and can potentially threaten human life. Oil sands and oil shales are more carbon intensive as fuels compared to oil from conventional sources, making investments in these fuel sources more susceptible to transition risks. Further, oil shale waste sites risk contamination of soil and groundwater by heavy metals and carcinogens.

Findings:

Within our assessment, managers that exclude or require thresholds for investments in unconventional fuels consist of 14 European managers for oil sands activities (indicator 8) , 8 European managers for fracked shale oil and gas (indicator 9) and 4 European managers for unconventional oil and gas infrastructure (indicator 10). None of the Asian managers have policies that cover unconventional oil and gas extraction.



Based on the assessment of our panel of asset managers, the acknowledgement of the higher sustainability and financial risks arising from unconventional oil and gas seems to be reflected in more asset managers incorporating the relevant exclusions and thresholds as compared to that for conventional oil and gas. Still, more can be done by asset managers across both regions to treat both conventional and unconventional oil and gas with equal urgency in terms of thresholds and phasing out in order to align with a [1.5°C](#) portfolio target.

D. FRAMEWORK POSITION ON RENEWABLES

As we phase out fossil fuels, it is equally important to phase in investment in renewable energy to manage a smoother and just transition in the world’s energy supply and consumption pathways. This will enable practical, commercial and economic viability in the mass adoption of renewable energy sources such as solar and wind. Currently, only about 10% of [global energy consumption](#) is powered by solar and wind power. However, for the world to meet its ambitious net zero carbon emissions targets, that share needs to grow to about 60% by 2050 to meet our global net zero target, which would require approximately [USD 100 trillion in capital market solutions according](#) to IRENA.

As renewable energy gains momentum, it is crucial that investors assess and take into account the impact that renewable energy projects may potentially have on nature. For example, [hydropower infrastructure](#) projects which are not designed well could have negative environmental and societal impacts, such as disrupted fish migration, sediment flow and nutrient transfer. Suspended natural flows of rivers affect fisheries and the availability of agricultural land which in turn may lead to social implications such as food security and overall disruption of livelihoods of local communities.

Findings:

While 60% (18 European and 6 Asian) of the assessed managers identify renewable energy as a solution to mitigate climate change (indicator 4), only 1 European manager disclosed the ESG evaluation and risk management methodology for investments in the renewable sector (indicator 26). In our opinion, this is reflective of the nascency of renewable energy technologies and solutions, and hence the relative early stage of adoption of this sector into asset managers’ portfolios.

As the area of renewables evolves and gains traction in adoption, we foresee adding more depth and criteria to our indicators on renewable energy relating to impact measurement and expectations on energy companies towards renewable energy transition.

3. IMPORTANCE OF EXPECTATIONS IN ENGAGEMENT ACTIVITIES

It is widely accepted that central to effective implementation of net zero goal setting for an investment portfolio is proactive engagement with investee companies to influence their adoption of a Paris-aligned de-carbonisation trajectory that is specific to their respective sector.

Based on the 7 indicators within the framework on asset managers’ expectations of their investee companies, low scores noticed across the board are partly attributable to some asset managers having reflected these requirements for investee companies in their voting policies. In the case where these are articulated as voting criteria, where for instance an asset manager states that it would vote in favour of a resolution requiring an investee company to disclose its GHG emissions, it would follow that where no such resolution is proposed in the first place, the asset manager would not have been able to convey such an expectation.

INDIC.	DESCRIPTION	EUROPEAN SCORE	ASIAN SCORE
12	Publicly disclose GHG emissions	<div><div></div></div>	<div><div></div></div>
13	Set GHG emissions reduction targets	<div><div></div></div>	<div><div></div></div>
14	Publish TCFD reports	<div><div></div></div>	<div><div></div></div>
15	Adopt Science-Based Targets for all energy sector companies, ranging from upstream, midstream to downstream players to adopt Science-Based Targets	<div><div></div></div>	<div><div></div></div>
16	Commit to appropriate decommissioning plans and rehabilitation of natural environment	<div><div></div></div>	ZERO
24	Oil and gas producers to stop expansion into oil and gas fields	<div><div></div></div>	ZERO
25	Oil and gas producers to transit into renewables	<div><div></div></div>	ZERO

* A total of 22 European and 18 Asian asset managers assessed



RECOMMENDATIONS:

Our framework breaks down recommended engagement processes into more specific expectations that an asset manager should proactively communicate to all relevant investee companies:

- 1 Publicly disclose GHG emissions (indicator 12)
- 2 Set GHG emissions reduction targets (indicator 13)
- 3 Publish TCFD reports (indicator 14)
- 4 Adopt Science-Based Targets for all energy sector companies, ranging from upstream, midstream to downstream players(indicator 15)
- 5 Commit to appropriate decommissioning plans and rehabilitation of the natural environment (indicator 16)
- 6 Convey expectations on oil and gas producers to stop expansion into oil and gas fields (indicator 24) and concurrently to transit into renewables (indicator 25).

The above expectations are best communicated proactively to the investee companies as part of an engagement process, and documented in an engagement policy statement.

4. ENERGY-SECTOR SPECIFIC DISCLOSURES ON RISK AND ESG PERFORMANCE MEASUREMENT

Following from the setting of energy sector specific exclusions and thresholds and specific criteria for energy sector-related engagement process, the relevant disclosures would be required for a credible and accountable implementation process. Within the framework, it should be emphasised that we require greater granularity in reporting of such risk and impact specific to the energy sector exposure of a portfolio (indicator 27) rather than reporting the same for the overall portfolio.

We have observed that 4 European managers and 3 Japanese managers have disclosed such outcomes from risk assessment or scenario analysis of their energy sector based on their entire portfolios and 1 other European manager has disclosed this at least for selected fund mandates, which is relatively encouraging.

The energy sector encompasses renewable energy, and this segment should likewise be similarly evaluated from the risk and ESG performance, as is done with their fossil fuel counterparts (indicator 26). As mentioned above, we observed only 1 European asset manager disclose the risk management methodology and ESG evaluation criteria for investments specifically in the renewable sector. This can be attributed to the nascent nature of investments in the renewables sector.

Asset managers should measure and project past and future performance as well as report total energy supply breakdown by each energy sector in its portfolio - energy use, renewables, exploration and extraction(indicator 28). None of the asset managers report the above in detail, which can again be attributed to the early stage of responsible investment in this sector.

RECOMMENDATION:

- 1 The measurement of the financial risk exposure attributable to the energy sector of an investment portfolio and the environmental impact from investments in this sector should be performed and disclosed with the level of transparency afforded by current data availability and where relevant, disclosure of assumptions made.
- 2 ESG factors are increasingly important in investment decision-making. Asset managers need to have a clear understanding of the ESG performance of the companies in which they invest to ensure that they are meeting their investment objectives and fulfilling their fiduciary responsibilities.

CONCLUSION

Managing the transition of the energy sector is an integral part of meeting net zero climate goals for an investment portfolio.

The transformation of investment in the energy sector, the largest emissions contributor, is key in determining the successful outcome of transitioning to a low-carbon, sustainable future in order to mitigate the worst impacts of climate change. Still, we recognise the challenges asset managers face in the practical implementation process along every step from the laying out of an energy-related policy, risk and impact measurement and to proactive engagement with energy companies.

Based on this round of assessment, while European asset managers appear to be much ahead of Asian asset managers in terms of a sustainable approach towards the energy sector in their investment portfolios, more still needs to be done across the investment community on all aspects of the investing and engagement processes to support the global energy transition.

We hope that the Energy Transition Framework and this assessment process can serve as a starting point for a practical investment approach, transiting away from fossil fuels and towards renewables. The climate is shifting. Effective and successful mitigation and adaptation can happen with concerted support from responsible investments.

APPENDICES

APPENDIX 1: ASSET MANAGERS ASSESSED

abrdn	Legal & General Investment Management
Aegon Asset Management	Lion Global Investors Ltd.
Allianz Global Investors	M&G Investments
Amundi	Mitsubishi UFJ Trust and Banking Corporation
APG Asset Management	Nikko Asset Management
Asset Management One Company Ltd.	NN Investment Partners
Aviva Investors	Nomura Asset Management
AXA Investment Managers	Nordea Asset Management
Baillie Gifford	Ostrum Asset Management
BNP Paribas Asset Management	Pictet Asset Management
Bosera Funds	Robeco
China Asset Management Company Ltd.	SBI Funds Management Pte. Ltd.
China Life Asset Management Company Ltd.	Schroders
China Southern Asset Management Company Ltd.	Sumitomo Mitsui Trust Asset Management
DWS Group	UBS Asset Management
E Fund Management Company Ltd.	Union Investment Group
Eastspring Investments	UOB Asset Management Ltd.
Fidelity International	UTI Asset Management Company Ltd
Fullerton Fund Management Company Ltd.	
Harvest Fund Management	
HSBC Global Asset Management	
Kotak Mahindra Asset Management (Singapore) Pte. Ltd	

APPENDIX 2: ENERGY TRANSITION FRAMEWORK
(ASSET MANAGERS SCORE BY REGION)

Framework Indicators

PURPOSE		Europe	Japan	China	Asia (Ex. Japan & China)	Total Score	
1 RELEVANCE OF SUSTAINABILITY IN ORGANIZATION'S STRATEGY AND INVESTMENT BELIEFS	1	Does the AM identify energy as a key sector for climate change?	20	4	2	2	28
	2	Does the AM have a specific policy approach(es) for energy or climate?	20	2	1	2	25
	3	Does the AM recognise the adverse impact of non-renewable energy on the environment and the climate?	19	1	0	1	21
	4	Does the AM identify renewable energy as a solution to mitigate climate change?	18	2	2	2	24
POLICIES		Europe	Japan	China	Asia (Ex. Japan & China)	Total Score	
2 OIL AND GAS POLICY	5	Does the AM exclude or require thresholds for investments in exploration and development of new assets in the oil and gas sector?	2	0	0	0	2
	6	Does the AM investment process aim to phase out investments in exploration and development of new assets in the oil and gas sector?	4	0	0	0	4
	7	Does the AM exclude or require thresholds for investments in companies involved in oil and gas-related activities in or near enough to affect the Arctic?	10	0	0	0	10

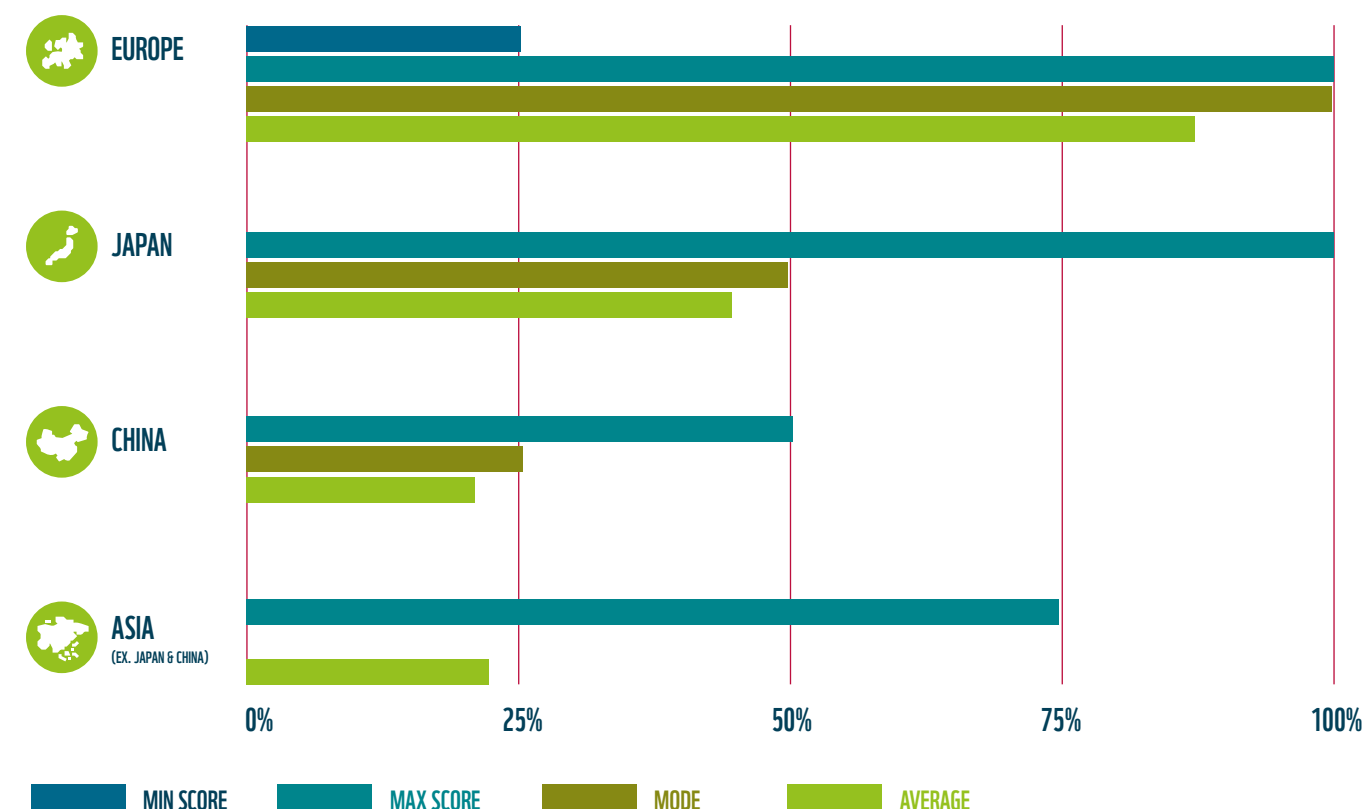
POLICIES		Europe	Japan	China	Asia (Ex. Japan & China)	Total Score	
3 UNCONVENTIONAL FOSSIL FUEL POLICY	8	Does the AM exclude or require thresholds for investments in companies engaging directly in oil sands activities?	14	0	0	0	14
	9	Does the AM exclude or require thresholds for investments in companies engaging directly in fracked shale oil and gas activities?	8	0	0	0	8
	10	Does the AM exclude or require thresholds for investments in companies involved directly in unconventional oil/ gas infrastructures (e.g. pipelines)?	5	0	0	0	5
4 CROSSCUTTING CLIMATE ENERGY POLICY	11	Does the AM exclude or require thresholds for investments in companies exposed to key biodiversity areas, protected areas and species (including e.g. IUCN Cat I-IV, WHS, Ramsar Wetlands, CITES, KBA)?	0	0	0	0	0
	12	Does the AM require relevant investee companies to publicly disclose GHG emissions?	6	1	0	0	7
	13	Does the AM require relevant investee companies to set GHG emissions reduction targets?	7	1	0	0	8
	14	Does the AM require all investee companies in exploration, extractive and energy sectors to provide public TCFD report?	3	1	0	0	4
	15	“Does the AM require all investee companies in exploration, extractive and energy sectors, including those in energy-related support, midstream and downstream services to set Science Based Targets (e.g. decarbonization in line with Paris Agreement)?	6	1	0	0	7
	16	Does the AM require all relevant investee companies to commit to appropriate decommissioning plans and rehabilitaion of natural environment?	1	0	0	0	1

POLICIES		Europe	Japan	China	Asia (Ex. Japan & China)	Total Score
5 COAL EXTRACTION/ REFINING POLICY	17 Does the AM exclude investments in companies engaged in expansion of thermal coal extraction or processing?	10	0	0	1	11
	18 Does the AM exclude investments in companies with significant (>30% of revenue) thermal coal exposure?	15	0	0	0	15
	19 Does the AM require investee companies in integrated mining to phase out of all thermal coal extraction or processing by 2030?	4	0	0	0	4
	20 Does the AM exclude or require thresholds for investments in companies involved in physical coal trading?	4	0	0	0	4
6 COAL POWER GENERATION POLICY	21 Does the AM exclude investments in companies involved in new/expansion of thermal coal power generation capacity?	10	1	0	0	11
	22 Does the AM exclude investments in companies with significant (>30% of revenue or generation capacity) exposure to activities related to thermal coal power generation?	12	0	0	0	12
	23 Does the AM require companies in integrated energy sector to phase out all thermal coal power generation and distribution by 2030?	6	0	0	0	6
PROCESSES		Europe	Japan	China	Asia (Ex. Japan & China)	Total Score
7 ACTIVE OWNERSHIP	24 Does the AM have expectations on oil/gas producers to stop expansion into oil/gas fields?	1	0	0	0	1
	25 Does the AM have expectations on oil/gas producers to transit to renewables?	1	0	0	0	1

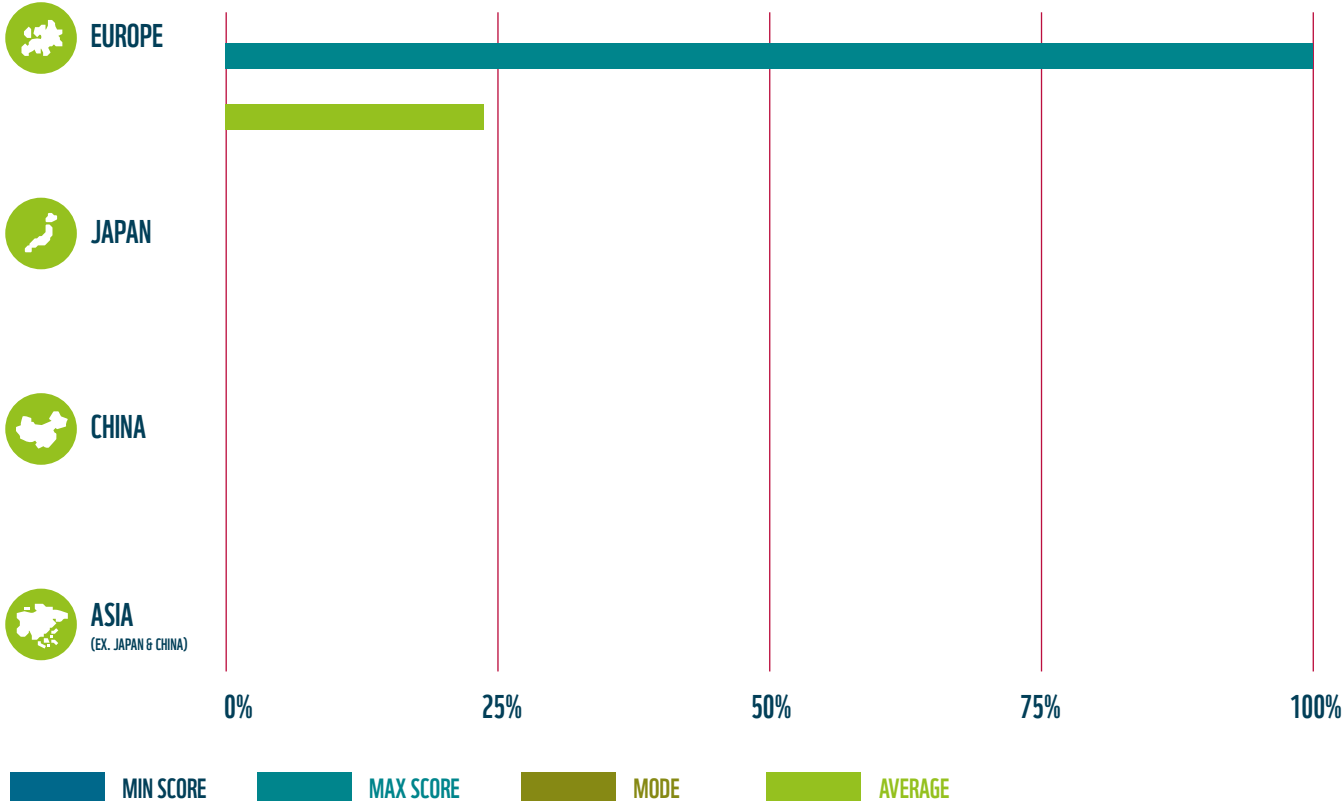
PORTFOLIO		Europe	Japan	China	Asia (Ex. Japan & China)	Total Score
8 RISK ASSESSMENT	26 Does the AM disclose the ESG evaluation and risk management methodology for investments in the renewable sector?	1	0	0	0	1
	27 Does the AM conduct and disclose the outcomes of energy-related risk assessments or scenario analysis (e.g. IEA scenarios) at the portfolio level?	4.5	3	0	0	7.5
9 METRICS AND TARGETS	28 Does the AM disclose past and future expected performance in key energy sectors in its portfolio(energy use, renewables, exploration & extraction), including past and future trend of Total Energy Supply (TPES)?	0	0	0	0	0

Disclaimer: The following charts reflect the framework results. If the value is 0 or if the mode is not available, no bars will be populated in the chart.

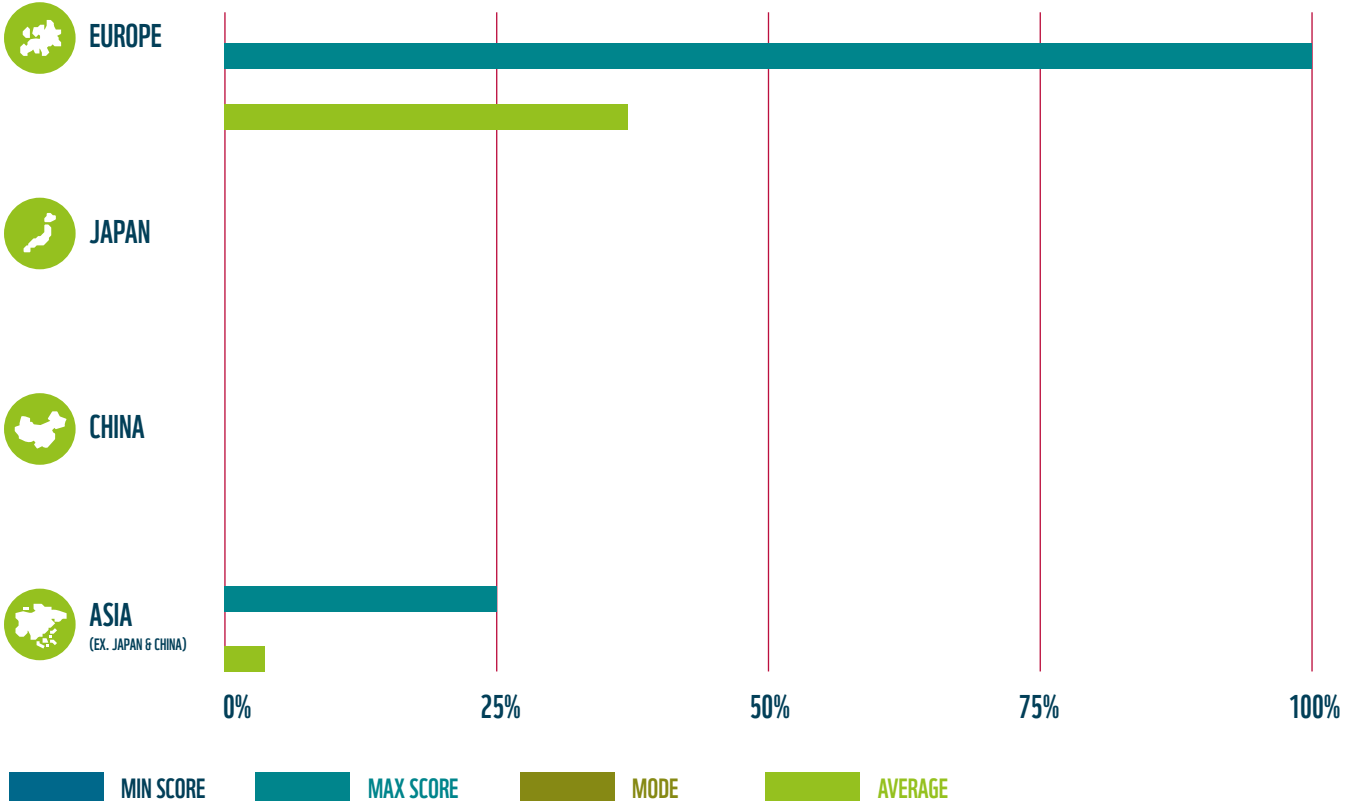
RELEVANCE OF SUSTAINABILITY IN THE ORGANIZATION'S STRATEGY AND INVESTMENT BELIEFS



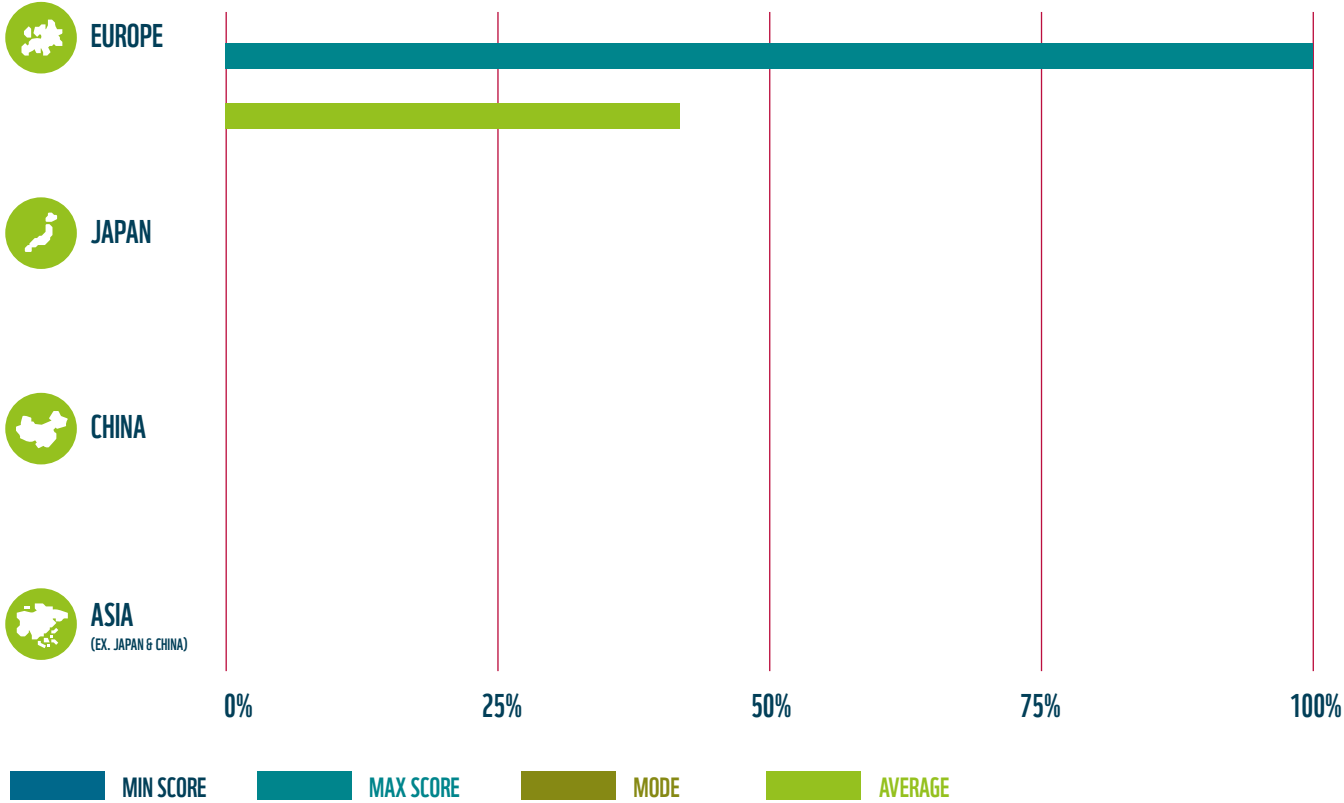
OIL AND GAS POLICY



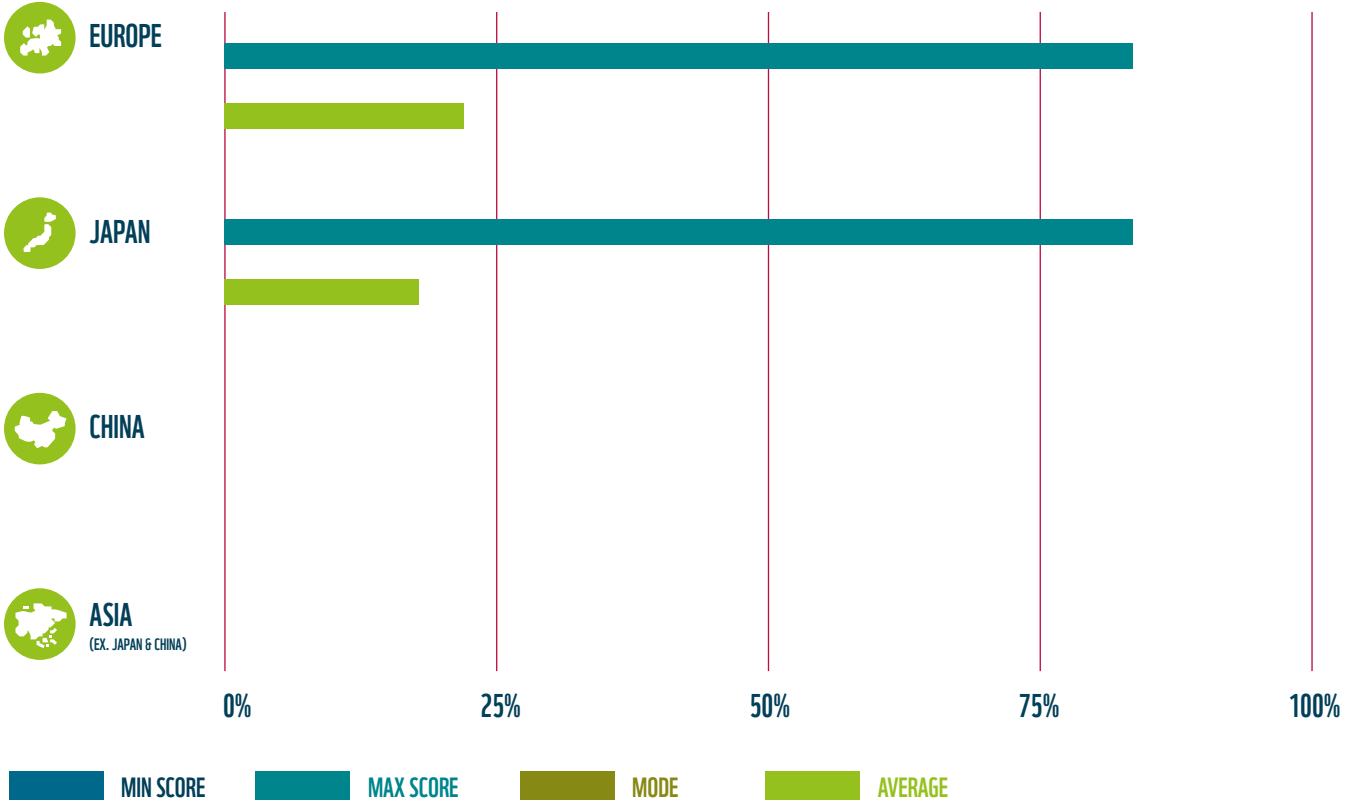
COAL EXTRACTION/REFINING POLICY



UNCONVENTIONAL FOSSIL FUEL POLICY



CROSSCUTTING CLIMATE ENERGY POLICY



OUR MISSION IS TO CONSERVE NATURE AND REDUCE THE MOST PRESSING THREATS TO THE DIVERSITY OF LIFE ON EARTH.



Working to sustain the natural
world for the benefit of people
and wildlife.

together possible™ panda.org

© 2023
Paper 100% recycled

WWF® and ©1986 Panda Symbol are owned by WWF. All rights reserved.

354 Tanglin Road #02-11, Tanglin Block Tanglin International Centre Singapore 247672
Tel. +65 6730 8100

For contact details and further information, please visit our international website
at wwf.panda.org