MARCH 2020 UPDATE

OUT OF LINE OUT OF TIME

THE 22 AUSTRALIAN COMPANIES UNDERMINING CLIMATE ACTION

MARKET FORCES
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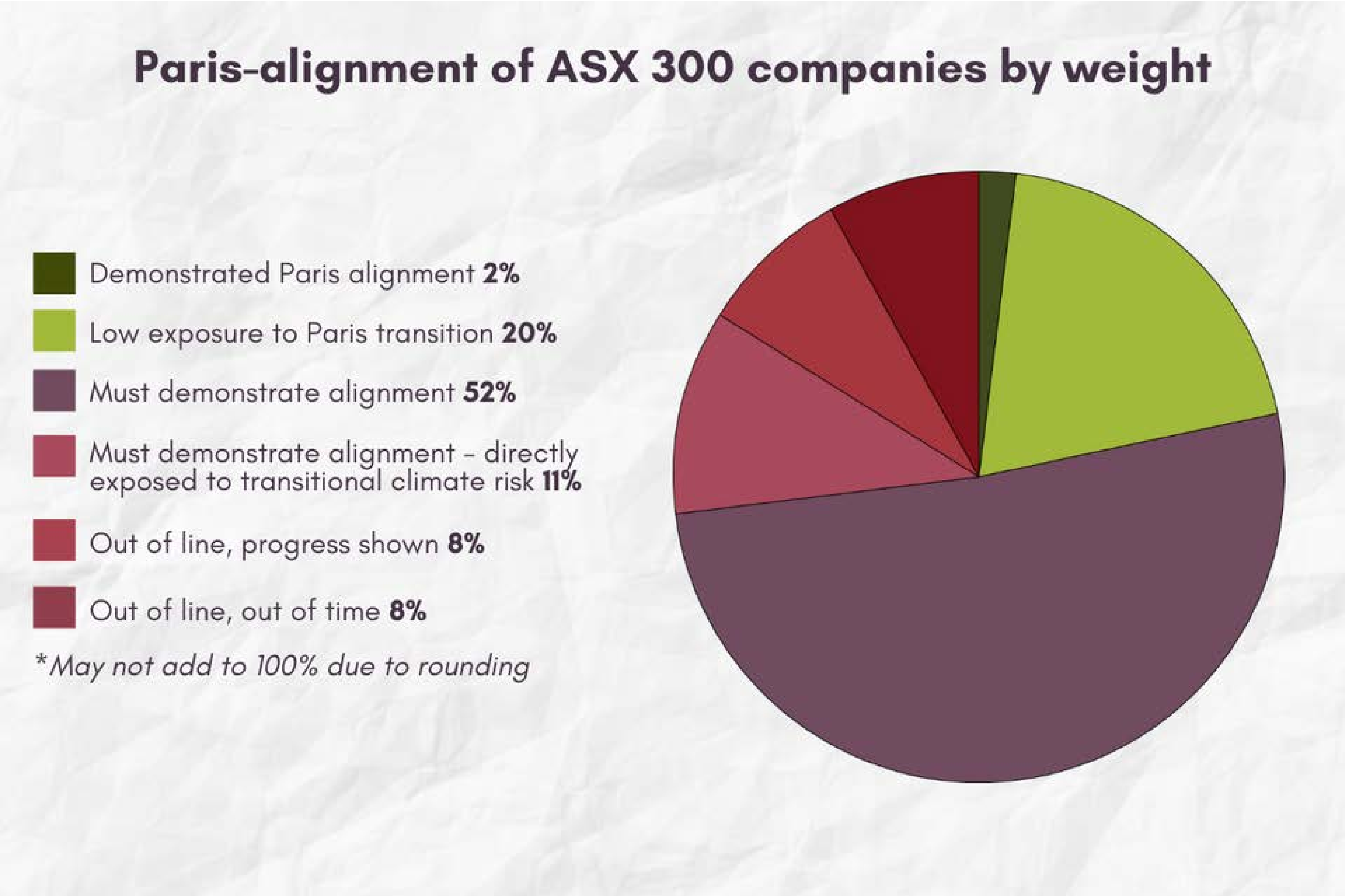
After a horror summer of drought, bushfire, floods, and other extreme weather events, we need to collectively demand action to rapidly reduce emissions in order to avoid the worst impacts of climate change.

But 22 of Australia's biggest companies are dragging us in completely the wrong direction, pursuing new fossil fuel projects and business plans that spell the failure of the Paris Agreement. And they're using our retirement savings to do it.

These companies have had their chance to align with the goal of holding global warming to 1.5°C, but have failed to take it. They are out of line, and out of time.



Market Forces reviewed the public disclosures of all ASX 300[1] companies to determine the extent to which those companies' business strategies align with the climate goals set out in the Paris Agreement.

This research should inform investor approaches to aligning their own portfolios with the goal of holding global warming to 1.5°C, through a combination of divestment and varying degrees of corporate engagement.

[1] *S&P ASX 300 list and market capitalisation as at 16 January 2020, sourced from Thomson Reuters Eikon*

SUMMARY OF FINDINGS

Out of line, out of time

22 companies in the ASX 300 are actively undermining the Paris climate goals by:

- Expanding the scale of the fossil fuel sector; and/or
- Relying on scenarios consistent with the failure of the Paris Agreement to justify their future business prospects.

These companies account for 8% of the total market capitalisation of the ASX 300. Investors determined to play their part in the fight against runaway climate change must immediately sell their positions in these companies.

Out of line, potential shown

One company, BHP, meets the Out of Line criteria, but has committed to produce Paris-aligned targets and plans. BHP requires robust investor engagement to ensure this commitment is fulfilled this year. If it fails to do so, BHP would be considered Out of Line, Out of Time, and should face divestment.

Must demonstrate Paris-alignment

Almost half of the 300 largest publicly owned companies in Australia (126 companies representing 60% of market capitalisation) do not meet the Out of Line criteria, but still need to demonstrate how they will bring their business models into line with the goals of the Paris Agreement. Investors must work with these companies to ensure they produce Paris-aligned plans and targets as part of their annual reporting.

> **Must demonstrate Paris-alignment - directly exposed to climate transition risk**
>
> Of these companies, 26 are directly exposed to transitional climate risk resultant from foreseeable changes in fossil fuel use. These companies either provide services to support the fossil fuel sector, such as mine operators, or currently rely on fossil fuels to process their products, such as iron ore producers. They must face strong, targeted investor engagement to ensure they manage down their significant exposure to climate change transition risks by shifting their business models away from their current reliance on fossil fuels. If they are unable or unwilling to transition, divestment should be considered.

Low exposure to Paris transition

139 companies (20% of market cap) are not directly involved in the fossil fuel industry, and have relatively low greenhouse gas emissions profiles. They are not actively holding back the transition to a Paris-aligned economy and have relatively low exposure to the shift away from fossil fuels.

Demonstrated alignment

Just 8 companies (2% of market cap) have demonstrated strategic alignment with the goals of the Paris Agreement. Concerningly, this number has not risen since the 2019 study was completed.

OUT OF LINE, OUT OF TIME COMPANIES

The 22 companies in this table are undermining climate action by:

- Expanding the scale of the fossil fuel sector; and/or
- Relying on scenarios consistent with the failure of the Paris Agreement to justify their future business prospects.

CODE	COMPANY	SECTOR	MARKET CAP (AUD)	EXPANDING FOSSIL FUELS	RELYING ON 2°C+ SCENARIOS
WPL	Woodside Petroleum Ltd	Energy	33,724,094,975	🌍	🔥
STO	Santos Ltd	Energy	18,742,161,334	🌍	🔥
ORG	Origin Energy Ltd	Energy	15,406,130,895	🌍	🔥
S32	South32 Ltd	Materials	13,960,186,916	🌍	🔥
APA	APA Group	Utilities	13,800,757,416	🌍	🔥
AGL	AGL Energy Ltd	Utilities	13,127,715,641	🌍	🔥
OSH	Oil Search Ltd	Energy	12,102,982,611	🌍	🔥
AZJ	Aurizon Holdings Ltd	Industrials	10,913,914,068		🔥
CTX	Caltex Australia Ltd	Energy	8,877,005,742	🌍	
WOR	Worley Ltd	Energy	8,375,309,439		🔥
SVW	Seven Group Holdings Ltd	Industrials	7,087,126,996	🌍	🔥
BPT	Beach Energy Ltd	Energy	6,361,610,691	🌍	
SOL	Washington H Soul Pattinson and Company Ltd	Energy	5,310,642,685	🌍	🔥
MIN	Mineral Resources Ltd	Materials	3,299,482,703	🌍	
WHC	Whitehaven Coal Ltd	Energy	2,656,688,713	🌍	🔥
NHC	New Hope Corporation Ltd	Energy	1,754,395,983	🌍	🔥
COE	Cooper Energy Ltd	Energy	967,574,718	🌍	
KAR	Karoon Energy Ltd	Energy	762,897,725	🌍	
CVN	Carnarvon Petroleum Ltd	Energy	563,013,562	🌍	
SXY	Senex Energy Ltd	Energy	502,197,439	🌍	🔥
FAR	FAR Ltd	Energy	263,699,812	🌍	
NCZ	New Century Resources Ltd	Materials	172,170,826	🌍	

🌍 This company is expanding fossil fuels

🔥 This company is relying on scenarios consistent with the failure of the Paris Agreement to justify their future business prospects

As at 16 January 2020

At the start of 2020, these companies represented 7.54% of the ASX 300 by market capitalisation, or 15.56% if we include BHP (see below). On 19 March 2020, in the midst of the Coronavirus pandemic and massive oil price fall, the 22 Out of Line, Out of Time companies represented just 5.77% of ASX 300 market cap (13.61% including BHP).

Each of these companies has had years of public pressure, and warnings from shareholders, investors and regulators about the need to manage climate risks, and stay in line with the Paris climate goals. In the face of the climate crisis, financial institutions can no longer justify remaining invested in any Out of Line, Out of Time company. In order to align investments with the Paris climate goals and meet the expectations of members, super funds must cease investment in these 22 Out of Line, Out of Time companies immediately.

CASE STUDIES

Time's up for AGL and Origin

In 2019, AGL and Origin faced shareholder resolutions, calling on the companies to set Paris-aligned emission reduction targets and coal power exit plans consistent with the Paris climate goals. Both companies pushed back strongly against these resolutions, demonstrating their unwillingness to bring their operations into line with a 1.5°C warming limit.

AGL plans to continue producing coal-fired energy until 2048, almost two decades beyond the point at which Australia needs to have fully transitioned out of coal power if we are to play our part in meeting the Paris climate goals. The company also plans to expand the fossil fuel sector by building a gas import terminal in Victoria, which would delay the transition to renewables.

Despite the need to drastically reduce gas use over the next ten years and beyond, Origin is planning to open up one of the world's biggest gas fields with its Beetaloo fracking project in the Northern Territory. The Beetaloo gas basin is so large it could unlock the equivalent of 22% of Australia's current annual emissions every year. Origin also plans to run Australia's biggest coal power station until 2032. Analysis from Carbon Tracker Initiative suggests this power station should be closed as early as 2021 in a Paris-aligned scenario.

Investors hoping AGL and Origin were sincere in their claimed support for the Paris Agreement must now realise that these companies have no interest in transitioning to 1.5°C-aligned business models. Engagement has failed, and they are now out of line, and out of time.

AGL's Bayswater coal power station

Judgment day looming for BHP

BHP has managed to avoid being added to this year's Out of Time list, with a promise to disclose Paris-aligned emission reduction targets and plans this year. Importantly, this will include targets for the company's scope 3 emissions, which are generated generated downstream in BHP's supply chain.

Along with BHP's investors, Market Forces will be watching closely to determine whether the company's targets and plans will be consistent with the climate goals of the Paris Agreement. Otherwise BHP will join the 22 other Out of Line, Out of Time companies.

Gas majors eye off carbon bombs

Woodside Petroleum is leading plans to open up two massive new gas fields off the Northwest WA coast. If Woodside has its way, the Burrup Hub mega-project would become Australia's biggest contributor to global carbon emissions. No serious investor could remain in a company proposing to build 35 new coal plants in 2020. Yet that's exactly the climate impact Woodside's plans would have.

Image source: Clean Slate & CCWA

Meanwhile, Santos aims to more than double production by 2025. These plans include joining Origin in opening up the massive Beetaloo gas basin, and developing its highly controversial Narrabri gas project in NSW.

To put these expansion plans in context, IPCC modelling shows that gas use for primary energy must decline by 20-25% by 2030 (from a 2010 baseline) if we are to meet the globally-agreed target of limiting global warming to 1.5°C.

Our financial institutions must recognise their continued investment in gas giants like Woodside, Santos and Origin are supporting expansion plans that would doom the Paris Agreement to failure. Members will not stand idly by while our retirement savings are used to prop up these companies that are driving us towards runaway climate change.

Coal expansion plans still on the table

It's hard to believe that in 2020, four years after the Paris Agreement, a year after the IPCC's Special Report on 1.5°C, and after a devastating summer of extreme weather events amplified by climate change, companies are still allowed to expand the coal sector. It's even harder to believe that these companies still enjoy the financial backing of most super funds and Australia's big banks.

Whitehaven Coal is pushing ahead with its Vickery expansion project, which is seeking approval to add up to 40% to the company's annual coal production, the vast majority of which is thermal coal. Meanwhile, New Hope still wants to open up the New Acland Stage 3 project, which would extend coal mining at the site out to 2048, a decade beyond the point at which the Paris Agreement requires coal fired power to be phased out in Asia, New Hope's major market.

When members demand divestment from the likes of Whitehaven and New Hope, super funds often say they prefer to engage with these companies to try to reduce their climate impacts. However, when asked if investors had been engaging with New Hope over climate change, the company's Chairman Rob Millner replied "As far as I'm aware, there have been no questions along those lines at all from institutional investors."

We are long past the point at which super funds should be questioning pure play coal companies about their climate impacts and plans. Funds must immediately stop using our retirement savings to support climate destruction caused by the likes of Whitehaven and New Hope.

Clearing at Whitehaven's Maules Creek mine in the Leard Forest

The rest of the Out of Line, Out of Timers

APA Group continues to pursue expansions to its gas transportation business, including pipeline infrastructure to enable two highly controversial new gas projects: Santos' Narrabri coal-seam gas project and AGL's Crib Point gas import terminal.

Aurizon has been added to the Out of Line, Out of Time list for the first time in 2020, following an update to our methodology to ensure owners and operators of fossil fuel infrastructure are assessed as fossil fuel companies. Aurizon is a coal haulage company that regularly uses coal demand projections consistent with around 4°C of global warming when justifying its business prospects.

Beach Energy plans to spend around $750 million each year to massively expand oil and gas production for at least the next five years.

Caltex Australia is continuing to expand its oil refining infrastructure and fuel distribution network.

Carnarvon Petroleum is a pure play oil and gas explorer operating in Timor Leste and Australia, with plans to unlock "the largest oil field in WA's North West Shelf." The company doesn't even recognise climate change as a risk in its annual reporting, which may contravene corporate disclosure regulations, and has not discussed any climate change scenarios.

Cooper Energy is a pure play oil and gas explorer and producer with plans to increase production to more than ten times its 2019 output by 2025.

FAR is an early stage oil and gas explorer targeting first production in 2022. The company doesn't recognise climate change as a risk in its annual reporting, and has not discussed any climate change scenarios.

Karoon Energy is a pure play oil and gas company with exploration assets in Australia, Brazil and Peru. The company is also planning to ramp up production at its Baúna oil project in Brazil.

Mineral Resources is predominantly a mining services company and iron ore miner, but acquired Empire Oil & Gas in 2017, and is actively pursuing gas development opportunities in Empire's exploration tenements.

The rest of the Out of Line, Out of Timers (continued)

New Century Resources is predominantly a zinc miner, but continues to spend capital on a major proposed coking coal project in the US.

Oil Search is a pure play oil and gas company with major expansion projects in Papua New Guinea and Alaska planned to come on line in the next five years. The company's annual report also projects LNG demand to almost double by 2030, when IPCC analysis shows gas use must fall by 15% from 2020 to 2030 in 1.5°C-aligned scenarios.

Senex Energy is a pure play oil and gas producer and explorer operating in Queensland and planning to triple production in the next two years.

Seven Group Holdings is a diversified company that owns almost 30% of Beach Energy (above), and is further expanding the fossil fuel sector through its wholly-owned SGH Energy business. The Group's 2019 Annual Report talks up its prospects using energy demand scenarios that assume business as usual, leading to the failure of the Paris Agreement.

South32 has completed the sale of its South Africa Energy Coal business, but not before securing a 20 year extension to the Klipspruit coal mine during FY2019. South32 also continues to increase its metallurgical coal production in Australia, with plans to extend its Dendrobium mine's lifetime through to 2036. The company's base case energy demand scenario is consistent with around 4°C of global warming.

Washington H Soul Pattinson owns a 50% stake in coal miner New Hope Corporation (see above), which it justifies by reference to coal demand projections consistent with around 4°C of global warming.

Worley is not a fossil fuel producer like many on this list, but facilitates the expansion of the fossil fuel sector by providing advisory, engineering, and construction services to new fossil fuel projects. The company states "all outlooks forecast growth in the Upstream oil and gas markets to 2040." This is inconsistent with IPCC analysis, which shows oil and gas use must both begin to decline by 2030 if we are to hold global warming to 1.5°C without carbon capture and storage becoming viable.

MUST DEMONSTRATE PARIS-ALIGNMENT

Almost half of the 300 largest publicly owned companies in Australia (126 companies representing 60% of market capitalisation) do not meet the Out of Line criteria, but still need to demonstrate how they will bring their business models into line with the goals of the Paris Agreement. Investors must work with these companies to ensure they produce Paris-aligned plans and targets as part of their annual reporting.

CODE	COMPANY	SECTOR	MARKET CAP (AUD)
RIO	Rio Tinto Ltd	Materials	144,908,076,627
FMG	Fortescue Metals Group Ltd	Materials	33,397,088,110
CIM	CIMIC Group Ltd	Industrials	11,230,063,028
QAN	Qantas Airways Ltd	Industrials	10,492,141,803
ORI	Orica Ltd	Materials	8,667,987,296
BSL	BlueScope Steel Ltd	Materials	7,969,942,677
AST	AusNet Services Ltd	Utilities	6,594,596,076
QUB	Qube Holdings Ltd	Industrials	5,770,044,966
IPL	Incitec Pivot Ltd	Materials	5,371,205,767
DOW	Downer EDI Ltd	Industrials	5,202,138,968
ALQ	ALS Ltd	Industrials	4,634,768,099
VEA	Viva Energy Group Ltd	Energy	3,761,585,130
SKI	Spark Infrastructure Group	Utilities	3,600,515,532
MND	Monadelphous Group Ltd	Industrials	1,644,827,851
NWH	NRW Holdings Ltd	Industrials	1,441,778,651
CIA	Champion Iron Ltd	Materials	1,254,445,364
MGX	Mount Gibson Iron Ltd	Materials	1,180,493,988
SSM	Service Stream Ltd	Industrials	1,148,768,440
PRN	Perenti Global Ltd	Materials	1,137,279,896
EHL	Emeco Holdings Ltd	Industrials	723,786,034
JMS	Jupiter Mines Ltd	Materials	616,903,346
IMD	Imdex Ltd	Materials	599,374,713
MAH	Macmahon Holdings Ltd	Materials	592,449,359
MLD	MACA Ltd	Materials	266,590,389
ITG	Intega Group Ltd	Industrials	195,633,067
CDD	Cardno Ltd	Industrials	193,409,964

As at 16 January 2020

Directly exposed to climate transition risk

Of these companies, 26 were found to be directly exposed to the transition away from fossil fuels required to meet the climate goals of the Paris Agreement. These companies either provide services to support the fossil fuel sector, such as mine operators, or rely on fossil fuels to process their products, such as iron ore producers.

These companies must face strong, targeted investor engagement to ensure they manage down their significant exposure to climate change transition risks by shifting their business models away from their current reliance on fossil fuels. If they are unable or unwilling to transition, super funds must consider divestment.

LOW EXPOSURE TO PARIS TRANSITION

139 companies (20% of market cap) are in the Consumer Discretionary, Consumer Staples, Health Care, Information Technology, Real Estate, and Telecommunications sectors, and emit less than 50 kilotonnes of carbon dioxide equivalent per year. With no direct involvement in the fossil fuel industry, and relatively low emissions, these companies are not actively holding back the transition to a Paris-aligned economy. They are therefore deemed to have relatively low exposure to transitional climate risk.

DEMONSTRATED PARIS-ALIGNMENT

Just 8 companies (2% of market cap) have demonstrated strategic alignment with the goals of the Paris Agreement. Concerningly, this number has not risen since the 2019 study.

An example of a company that has demonstrated Paris Alignment is Mirvac. The property company in 2019 produced a detailed plan to become net carbon positive by 2030. The plan outlines six strategies to achieve this goal, including switching to renewable energy sources (through power purchase agreements and on- and off-site renewable energy installation), design and operational efficiency improvements, actively influencing the emissions of tenants, and some high quality carbon offsetting as a last resort for any residual emissions that remain impossible to abate.

METHODOLOGY

Scope

- Research comprises all ASX300 companies (as at 16 January 2020)
    - S&P/ASX 300 list from Thomson Reuters Eikon

Sources

- Annual reports
- Sustainability reports
- Company websites
- Investor presentations
- NGERS reporting data

Process

Sector group 1

Consumer Discretionary, Consumer Staples, Health Care, Information Technology, Real Estate, Telecommunications

- Is the company required to report under NGERS or have combined scope 1 and scope 2 greenhouse gas emissions equal to or greater than 50 kilotonnes CO2-e
    - NO - Company has low exposure to Paris transition
    - YES - Does the company have Paris-aligned emission reduction targets covering its entire business, along with clear plans to achieve those targets?
        - YES - Company has demonstrated Paris-alignment
        - NO - Company must demonstrate Paris-alignment

Sector group 2

Financials

- Does the company have investments in coal, oil or gas companies or projects?
    - NO - Company has low exposure to Paris transition
    - YES / Unclear - Has the company demonstrated how investment decisions (investment portfolio, loan book, or underwriting portfolio) will align the business' operations with a Paris-aligned scenario?
        - YES - Company has demonstrated Paris-alignment
        - NO - Company must demonstrate Paris-alignment

METHODOLOGY (continued)

Sector group 3

Industrials, Materials, Utilities

- Does the company own or operate fossil fuel exploration, production, transport, energy generation or refining assets? [These would typically include GICS sub-industry: Gas Utilities, Multi-Utilities, Diversified Metals & Mining, Marine Ports & Services]
  - YES - Apply 'Sector group 4' (Energy) methodology
  - NO - Does the company: provide services to support fossil fuel energy generation, distribution, exploration, production, or transportation; or does the company produce iron ore?
    - YES - Has the company demonstrated how its strategy (involving capex decisions, remuneration and emission reduction targets) is consistent with a Paris-aligned scenario?
      - YES - Company has demonstrated Paris-alignment
      - NO - Company must demonstrate Paris-alignment, and is noted as directly exposed to transitional climate risk
    - NO - apply 'Sector group 1' methodology

Sector group 4

Energy

- Does the company rely on scenarios that overtly fail to meet the goals of the Paris Agreement when discussing future plans or prospects?
  - YES - Company is 'out of line'
  - NO/ UNCLEAR - Is the company attempting to expand the fossil fuel industry?
    - YES - Company is 'out of line'
    - NO/ UNCLEAR - has the company demonstrated how its strategy (involving capex decisions, remuneration and emission reduction targets) is aligned to a Paris-aligned scenario?
      - YES - Company has demonstrated Paris-alignment
      - NO - Company must demonstrate Paris-alignment, and is noted as directly exposed to transitional climate risk