



# **Brunel Pension Partnership 2022 Carbon Metrics Report**

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# Brunel Pension Fund Carbon Metrics Report



Holdings as at 31st December 2021

Key Info: AUM in mGBP: 19,767 Coverage: 98% 24/10/2022

## Brunel Carbon Metrics Report 2022

This report illustrates key Carbon Metrics for the Brunel Aggregate Portfolio and the associated underlying Brunel Portfolios as of 31 December 2021.

This report builds on Carbon Metrics reports published in December 2019 and 2020 and documents the results of the decarbonisation work we have undertaken across our Portfolios over this time.

We have been working extensively on decarbonising our Portfolios alongside our managers and we have launched a number of new Portfolios and benchmark indexes which are illustrated for the first time in this report.

We extend our thanks to S&P Trucost who provided the footprinting data for this report.

## Executive Summary

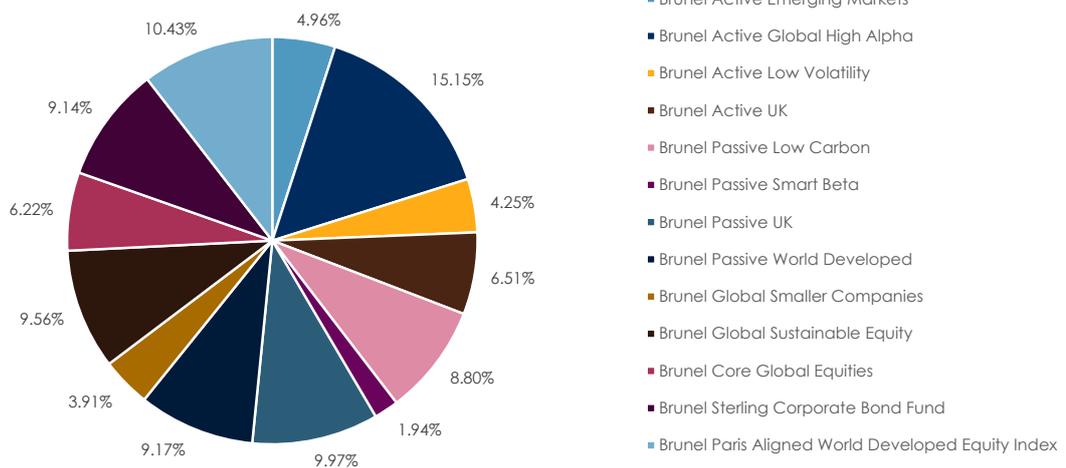
- The Brunel Aggregate Portfolio consists of the underlying Brunel Portfolios, weighted by assets under management as of 31 December 2021.
- The Weighted Average Carbon Intensity (WACI) of the Brunel Aggregate Portfolio is below its Strategic Benchmark, with a relative efficiency of +21%.
- Of the Brunel Sub-Portfolios within the Aggregate, the highest intensity was the Brunel Emerging Markets Portfolio (383 tCO<sub>2</sub>e/mGBP), while the lowest was the Brunel Core Global Equities (116 tCO<sub>2</sub>e/mGBP).
- The Brunel Emerging Markets Portfolio saw a decrease in carbon intensity of 4.9% from the previous year.
- Brunel Sterling Corporate Bond Fund has slightly higher carbon intensity compared to its benchmark. All other Brunel Active Sub-Portfolios have lower levels of carbon intensity compared to their respective benchmarks.
- The Brunel Aggregate Portfolio is less exposed to both fossil fuel revenues (0.95% vs 1.81%) and future emissions from reserves (21.7 MtCO<sub>2</sub> vs 44.6 MtCO<sub>2</sub>) than its Strategic Benchmark.
- The company disclosures rates are based on Scope 1 emissions, where 53% of companies within the Brunel Aggregate Portfolio have fully disclosed carbon data by carbon weighted method, and 40% by investment weighted method. The Trucost methodology for this carbon disclosure metric has been updated from last year in order to reflect more granular disclosures. Companies must now be disclosing emissions across the different Kyoto protocol gases in order to be classified as 'full disclosure', whereas previously only an aggregate emissions figure was required.
- Absolute carbon emissions is a new metric we have included in this year's carbon metrics report. The measure refers to the total carbon emissions allocated to the portfolio in absolute terms and the higher percentage holding in a company within a portfolio, the more of its emissions are 'owned'. Absolute emissions for different Portfolios cannot be compared on a like for like basis because the data is not normalised and the size of the portfolio can skew the results.

**Holdings as at 31st December 2021**

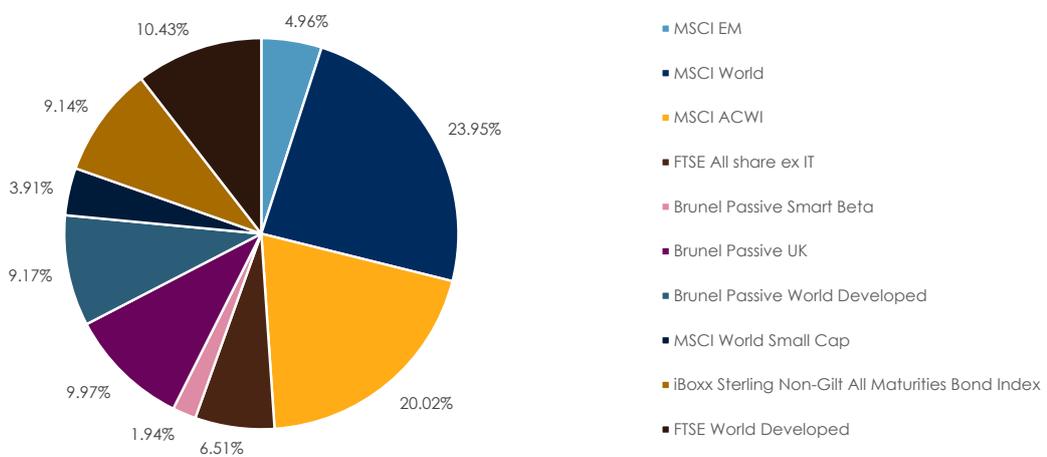
## The Brunel Aggregate Portfolio and Custom Benchmark

- This report includes a variety of carbon metrics, including the weighted average carbon intensity (WACI), fossil fuel activities, fossil fuel reserves, carbon data disclosure rates and absolute emissions for each of the Brunel Active and Passive Portfolios.
- We also report on the Brunel Aggregate Portfolio. This consists of each of the underlying Brunel Portfolios weighted by assets under management as of 31 December 2021. Details of this Portfolio are illustrated below.
- We have also created a Custom Benchmark Portfolio in order to make a meaningful comparator. This Custom Benchmark consists of the benchmarks of the underlying Brunel Portfolios, weighted by investment as of 31 December 2021.

### Brunel Aggregate Portfolio

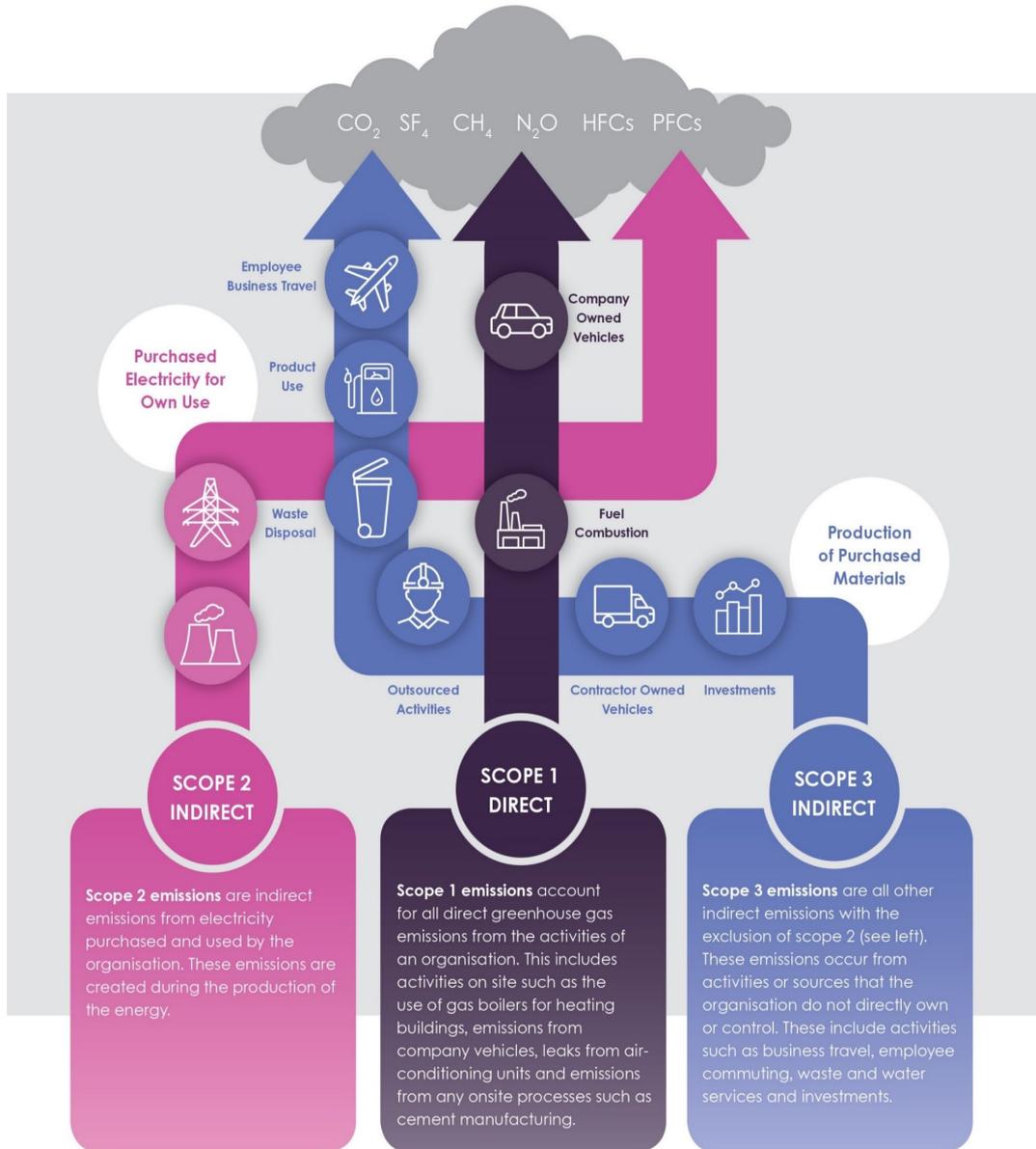


### Brunel Custom Benchmark



## Scope 1, 2 and 3 emissions

Brunel's emissions data provider (Trucost part of S&P Global) uses Direct and First-tier Indirect Emissions as its default emissions that differ slightly to the Greenhouse Gas (GHG) Protocol's scopes outlined below.



Brunel's data provider defines 'Direct Emissions' as the GHG Protocol's scope 1 emissions, plus any other emissions derived from a wider range of greenhouse gases relevant to a company's operations.

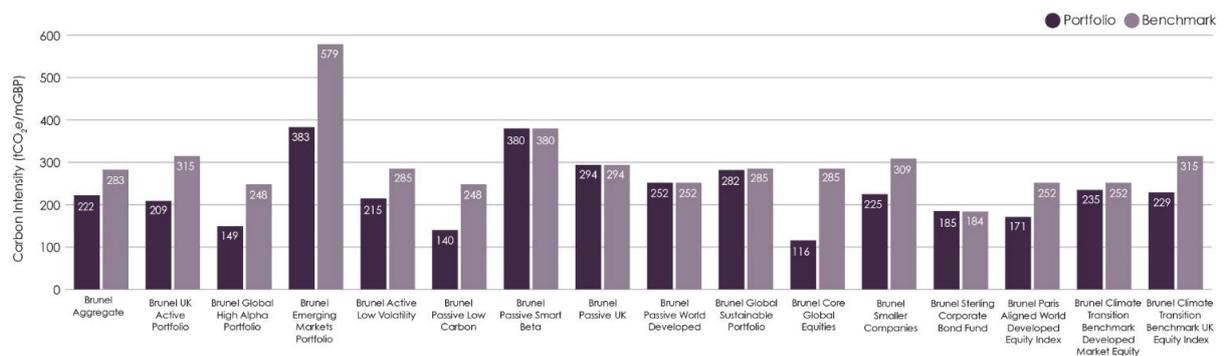
'First-tier Indirect Emissions' are defined as GHG Protocol scope 2 emissions, plus the company's first-tier upstream supply chain – their direct suppliers. This enhancement is to include some of the company's most relevant upstream scope 3 emissions while also limiting the extent of the double counting of emissions.

## Weighted Average Carbon Intensity (WACI)

The WACI shows a portfolio's exposure to carbon intensive companies. This measure is determined by taking the carbon intensity of each company and weighting it based on its holding size within the Portfolio.

The WACI is one of the measures recommended by the **Task Force on Climate-related Financial Disclosures (TCFD)**. Because carbon intensive companies are more likely to be exposed to potential carbon regulations and carbon pricing, this is a useful indicator of potential exposure to transition risks such as policy interventions and changing consumer behaviours.

In this report we illustrate the weighted average carbon intensity (WACI) of The Brunel Aggregate Portfolio and each of the underlying Brunel Portfolios, alongside their respective benchmarks.



We aim to reduce the carbon intensity of our Portfolios by 7% each year.

All active equity Portfolios have achieved at least a 7% emissions intensity reduction.

Portfolio	Reduction %	2021 Portfolio	2019 Baseline
Brunel Aggregate	35.16%	222.2	343
<b>Active Portfolios</b>			
Brunel UK Active Portfolio	25.89%	209.0	282
Brunel Global High Alpha Portfolio	50.37%	149.3	301
Brunel Emerging Markets Portfolio	32.89%	382.7	570
Brunel Active Low Volatility	35.70%	214.7	334
Brunel Sustainable Equities Portfolio	15.44%	282.3	334
Brunel Core Global Equities	65.13%	116.4	334
Brunel Smaller Companies*	27.11%	225.2	309
Brunel Sterling Corporate Bond Fund**	-0.67%	185.4	184
<b>Passive Portfolios</b>			
Brunel Passive Low Carbon	53.35%	140.3	301
Brunel Passive Smart Beta	31.46%	379.5	554
Brunel Passive UK	-4.67%	294.4	281
Brunel Climate Transition Benchmark UK Equity Index	18.47%	229.3	281
Brunel Passive World Developed	16.98%	251.6	303
Brunel Paris Aligned World Developed Equity Index	43.42%	171.5	303
Brunel Climate Transition Benchmark Developed Market Equity Index	22.50%	234.9	303

\*Trucost updated methodology in 2020 means we have taken December 2020 as a baseline for the Smaller Companies Portfolio

\*\* This Portfolio has a baseline of 31 December 2021

## Fossil Fuel Related Activities

It is important to identify exposure to business activities in extractives industries in order to assess the potential risk of 'stranded assets'. Stranded assets are assets that may suffer premature write-downs and may even become obsolete due to changes in policy or consumer behaviour.

We can identify the exposure to stranded asset risk in a number of ways. One way is to consider the fossil fuel related activities of the underlying companies within our Portfolios.

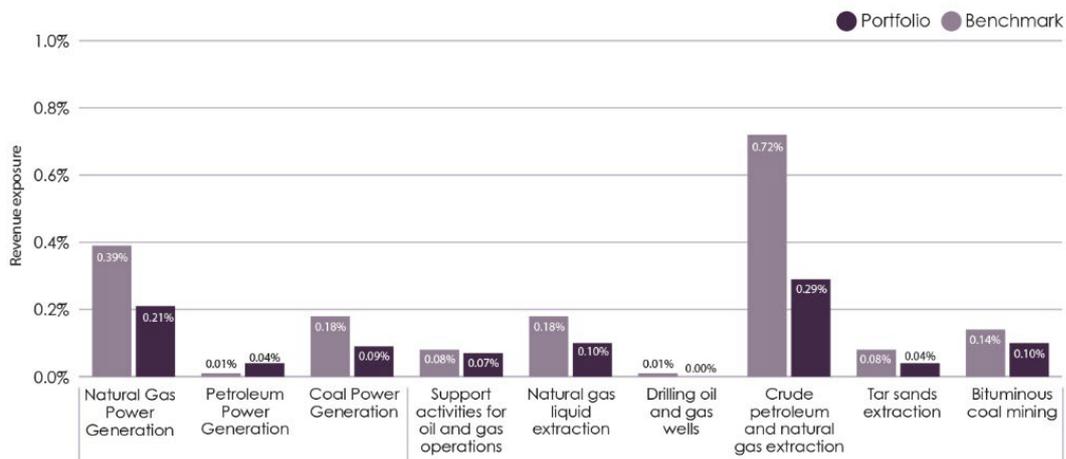
### Extraction-related activities:

- Crude petroleum and natural gas extraction
- Tar sands extraction
- Natural gas liquid extraction
- Bituminous coal underground mining
- Bituminous coal and lignite surface mining
- Drilling oil and gas wells
- Support activities for oil and gas operations

We identify companies with exposure to fossil fuel related energy generation (gas power, petrol power and coal power) and fossil fuel related extraction related activities (definitions on the left). We can assess the revenue exposure that each company has to these activities - and aggregate this to get an overall Portfolio assessment.

We illustrate this revenue exposure for all Brunel Portfolios and their respective benchmarks. We also provide an assessment of the Brunel Aggregate Portfolio.

### The Brunel Aggregate Portfolio - Fossil Fuel Revenue Exposure



The Brunel Aggregate Portfolio is less exposed to fossil fuel revenues than its Custom Benchmark (0.95% vs 1.81%).

The Portfolio is less exposed to fossil fuel related activities across all generation and extractives activities measured, with the exception of 'Petroleum Power Generation'.

Our Active Portfolios have significantly less exposure to fossil fuel related activities across most of these activity types compared to their respective benchmark. To view each Portfolio please see the analysis later on in this report.

## Fossil Fuel Reserves Exposure

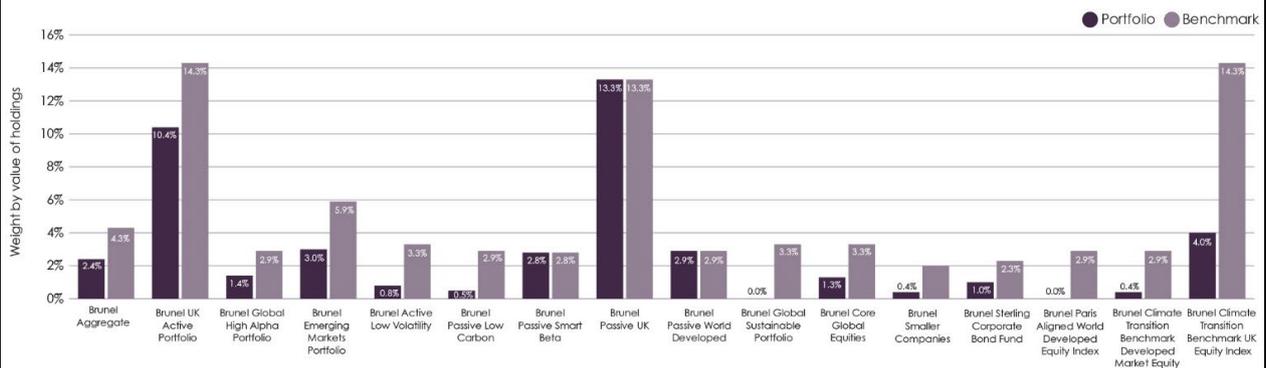
As well as assessing the revenue exposure from fossil fuel related activities, another way to assess the risk of stranded assets is to consider fossil fuel reserves. This is the exposure to fossil fuels which have not yet been realised by companies.

Fossil fuel reserves exposure give us a measure of companies that have disclosed their 'proven' reserves, as well as capturing companies that have 'probable' fossil fuel reserves.

**Proven reserves exposure - have a > 90% chance of being present**  
**Probable reserves exposure - have a >50% chance of being present**

We identify companies that have both proven and probable reserves - and can look at the aggregate exposure within each of our Portfolios, as well as the Brunel Aggregate Portfolio. Each Portfolio is illustrated in this report against its respective benchmark.

### Fossil Fuel Reserves Exposure



The Brunel Aggregate Portfolio is less exposed to fossil fuel reserves (2.4%) compared to its Custom Benchmark (4.3%).

Our Active Portfolios have significantly less exposure to fossil fuel reserves compared to their respective benchmarks.

As expected our Passive Portfolios track their relevant indexes.

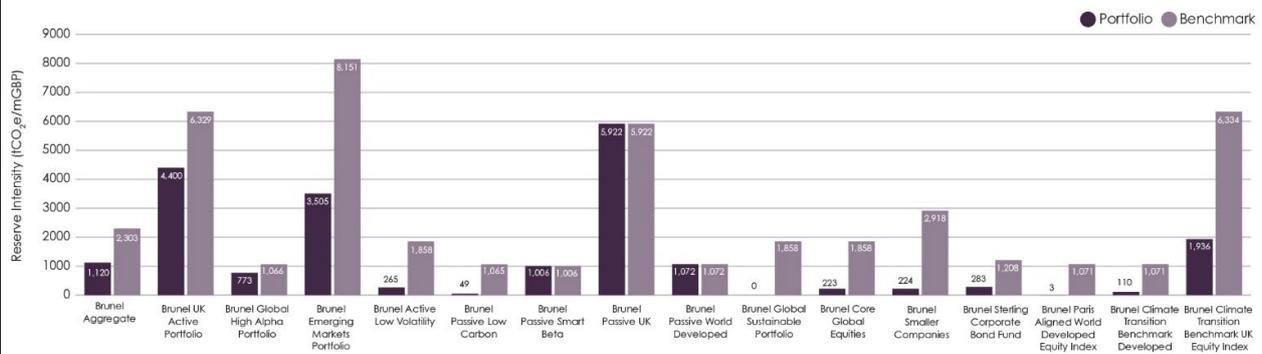
## Potential Emissions from Reserves

Taking the reserves exposures discussed above, we can look at an assessment of potential future emissions that may incur from these reserves being realised. This metric is not included in the WACI figure (which focuses on current intensity) - and so it is an important assessment of company's potential contribution to emissions via its stockpile of fossil fuels.

We have been able to assess the potential emissions associated with the proven and probable reserves for companies within our Portfolios, as well as an overall Portfolio assessment.

We illustrate the potential emissions from reserves for each of our Portfolios and their respective benchmarks below, as well as the Brunel Aggregate Portfolio.

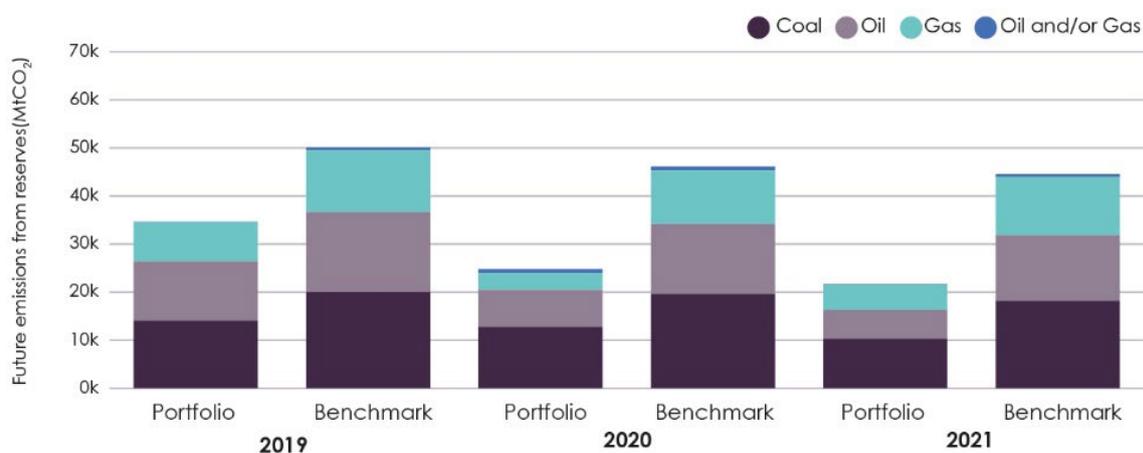
### Future Emissions from Reserves



As well as an overall assessment of potential emissions from reserves, we are able to break these potential emissions down by fossil fuel type. We provide this analysis for each Portfolio against its benchmark, as well as how it has changed over time.

Below we display this analysis for the Brunel Aggregate Portfolio.

### Future Emissions from Reserves by Fossil Fuel Type - Brunel Aggregate Portfolio



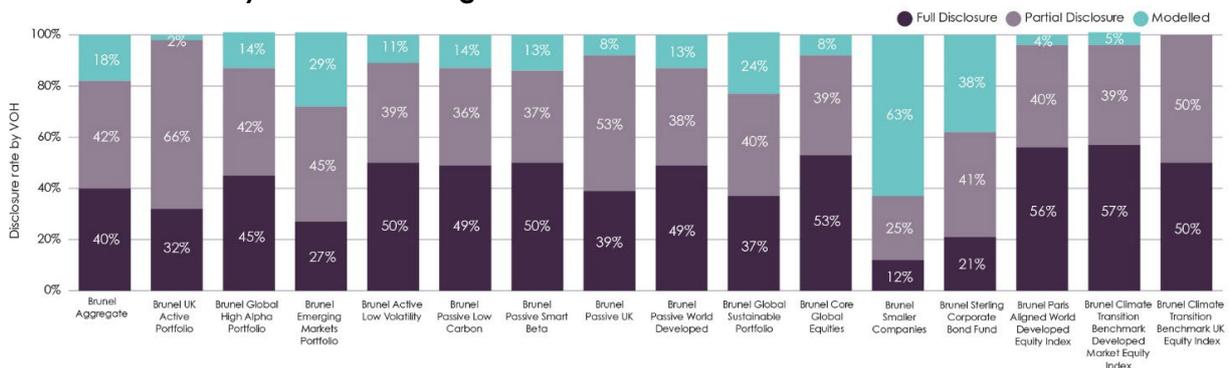
## Disclosure Rates

In order to determine the carbon footprints and associated metrics in this report, Trucost collects company information such as disclosure around greenhouse gas emissions and business activities. To collect this data Trucost use a variety of sources such as annual reports and financial statements, regulatory filings, Corporate Social Responsibility reports and information published on company websites.

In the absence of this data, Trucost uses what is known as an 'input-output model' to estimate as best as possible the data for a particular company. This model combines industry-specific environmental impact data alongside macroeconomic data. Sometimes a company reports some carbon or business activity data; in which case Trucost can partially model the company's footprints and metrics. In the absence of usable or up to date disclosures Trucost fully models a company's footprint and metrics.

The Trucost methodology for this carbon disclosure metric has been updated from last year in order to reflect more granular disclosures. Companies must now be disclosing emissions across the different Kyoto protocol gases in order to be classified as 'full disclosure', whereas previously only an aggregate emissions figure was required.

### Disclosure Rates - by Investment Weight



**Full Disclosure** - companies fully reporting their own carbon data.

**Partial Disclosure** - the data disclosed by companies has been adjusted in some way. This may include using data from previous years' disclosures as well as estimating changes in business activities.

**Modelled** - in the absence of usable or up to date disclosures, the data has been estimated by Trucost models.

Disclosure rates vary enormously across the world and this is one of the reasons Brunel is a strong advocate for mandatory climate risk reporting for all companies. The higher the level of direct disclosure, the higher the confidence in the data against which to take action. Over time, we seek to increase the proportion of direct or 'full disclosure' of all our portfolios.

The level of company disclosures for the Brunel Aggregate Portfolio and each Brunel Sub-Portfolio is illustrated above. Unsurprisingly companies under lower regulatory regimes such as Smaller Companies and Emerging Markets have lower levels of disclosure rates.

In this report we provide a breakdown of the disclosure rates of each of the Brunel Portfolios and the Brunel Aggregate Portfolio on both an investment weighted and greenhouse gas weighted basis. We also show how it has changed over time.

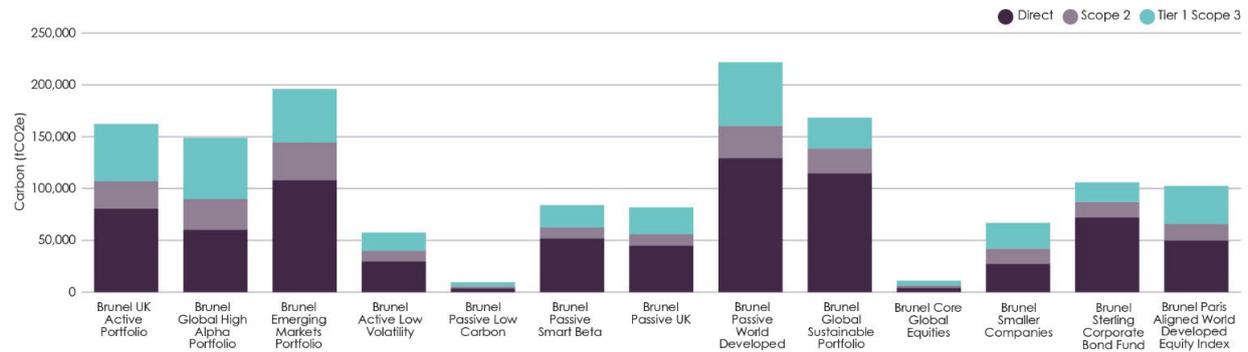
Generally speaking all of our Portfolios tend to have higher disclosure rates than their respective benchmarks.

## Absolute Carbon Emissions

Absolute carbon emissions is a new metric we have included in this year's carbon metrics report. The measure refers to the total carbon emissions allocated to the portfolio in absolute terms, allocating emissions to an investor based on levels of capital invested in a company. The higher percentage holding in a company within a portfolio, the more of its emissions are 'owned'.

Absolute emissions for different Portfolios cannot be compared on a like for like basis because the data is not normalised and the size of the portfolio can skew the results.

### Absolute Carbon Emissions

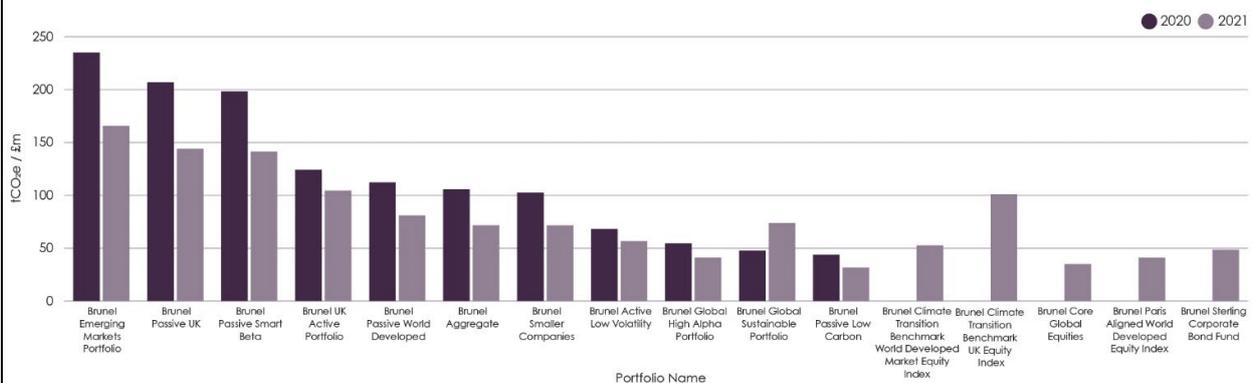


**Direct** - GHG Protocol's scope 1 emissions, plus any other emissions derived from a wider range of greenhouse gases relevant to a company's operations. Scope 1 emissions are emissions from directly emitting sources that are owned or controlled by a company, for example, the emissions produced by the internal combustion engines of a trucking company's lorry fleet.

**Scope 2** - emissions from the consumption of purchased electricity, steam, or other sources of energy generated upstream from a company's direct operations.

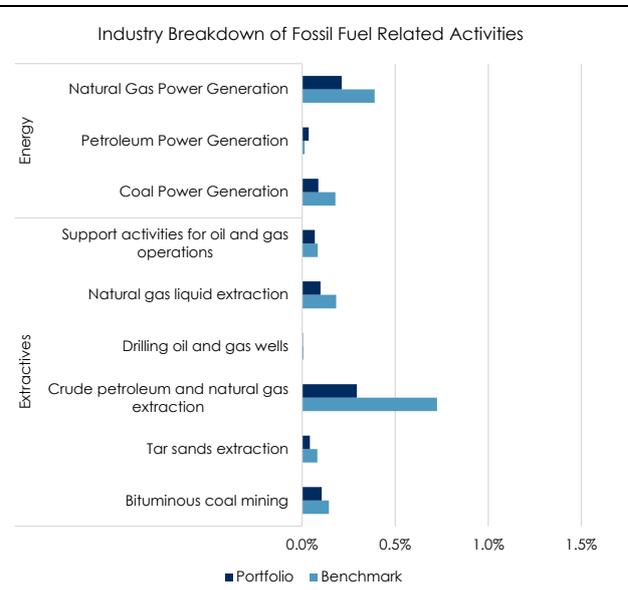
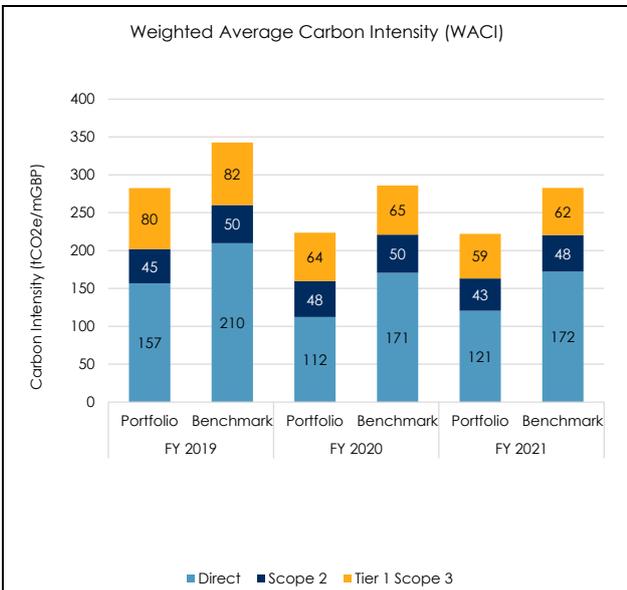
**First Tier Scope 3** - the company's first-tier upstream supply chain – their direct suppliers.

### Normalised Absolute Carbon Emissions By Value Invested



## Brunel Aggregate vs. Brunel Custom BM

## Holdings as at 31st December 2021



### Current Year Top Contributors to WACI

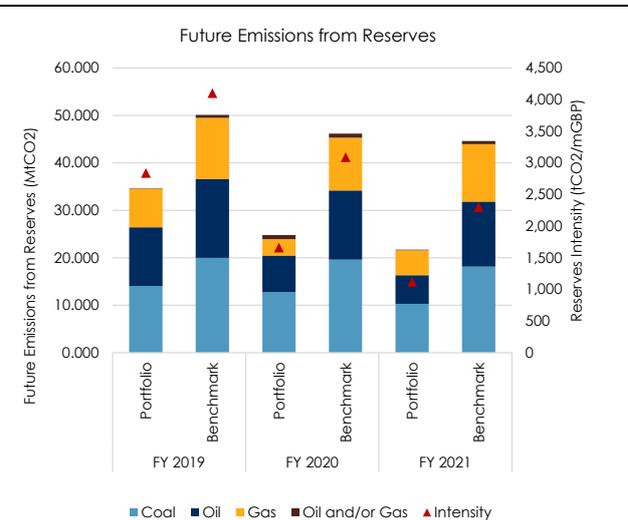
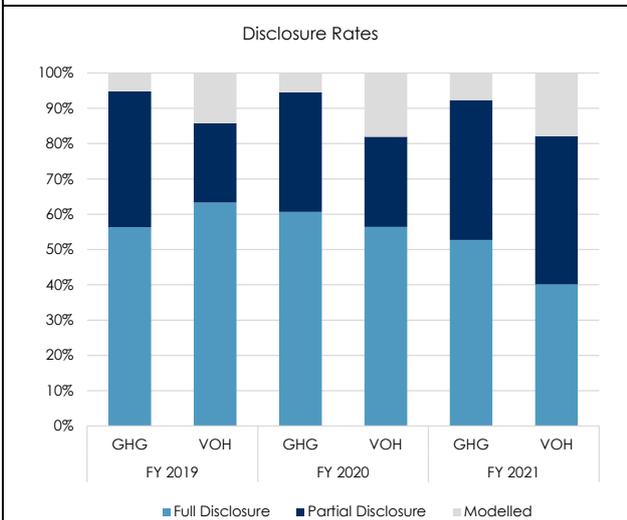
Name	Carbon-to-Revenue intensity (tCO <sub>2</sub> e/mGBP)	Weight (%)	Contr. (%)
Waste Management, Inc.	2,891	0.18%	-2.22%
Republic Services, Inc.	2,855	0.17%	-2.04%
South Eastern Power Networks plc	7,625	0.06%	-1.89%
Holcim Ltd	7,263	0.05%	-1.59%
Linde plc	1,977	0.20%	-1.55%

### Top Contributors to Weighted Fossil Fuel Revenues

Name	Weight (%)	Weighted FF Revenue (%)
Royal Dutch Shell PLC	0.47%	0.11%
BHP Group	0.37%	0.09%
Halliburton Company	0.03%	0.04%
Duke Energy Corporation	0.07%	0.04%
Anglo American Plc	0.29%	0.03%

The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

The **Industry Breakdown of Fossil Fuel Related Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.



### Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	53%	40%
Partial Disclosure	40%	42%
Modelled	8%	18%

### Future Emissions from Reserves by Type (MtCO<sub>2</sub>)

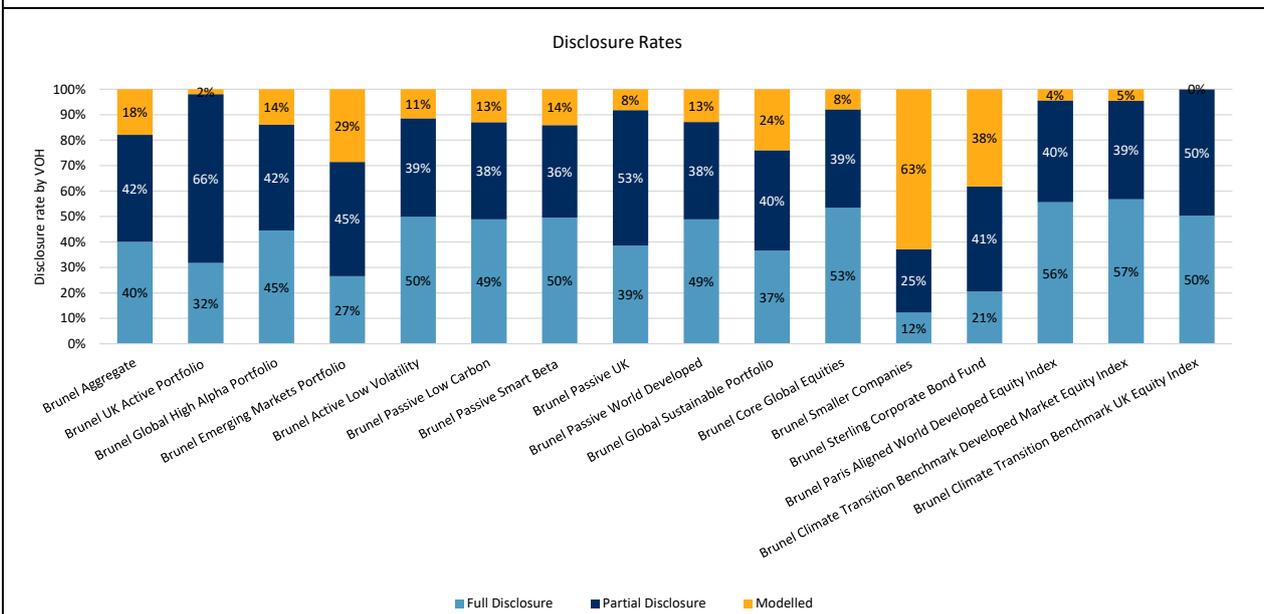
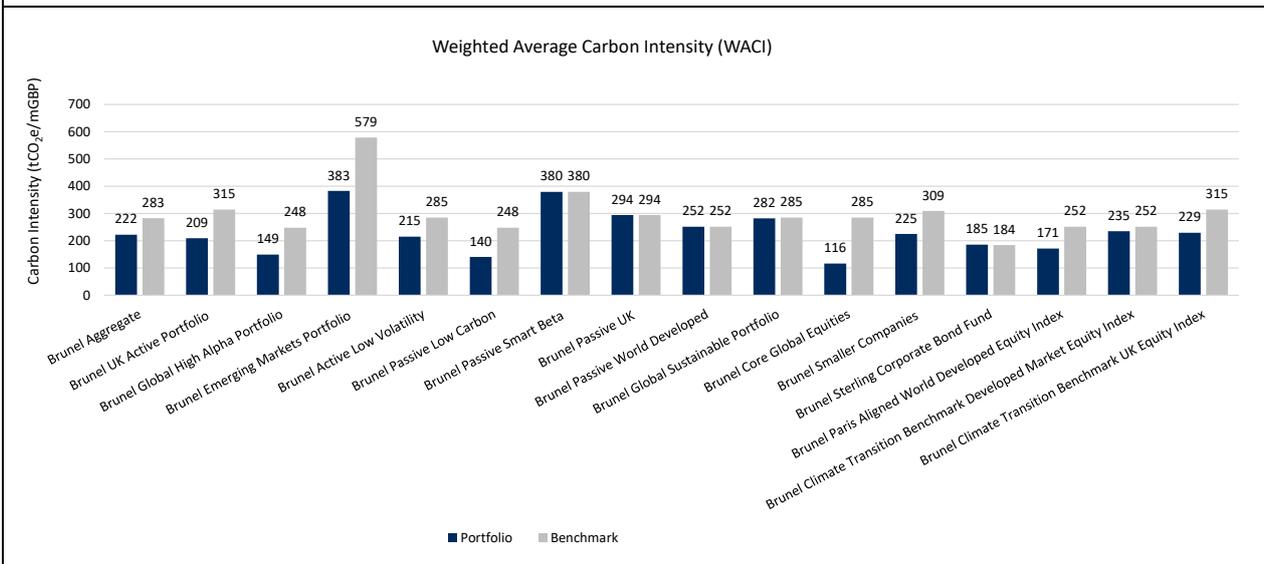
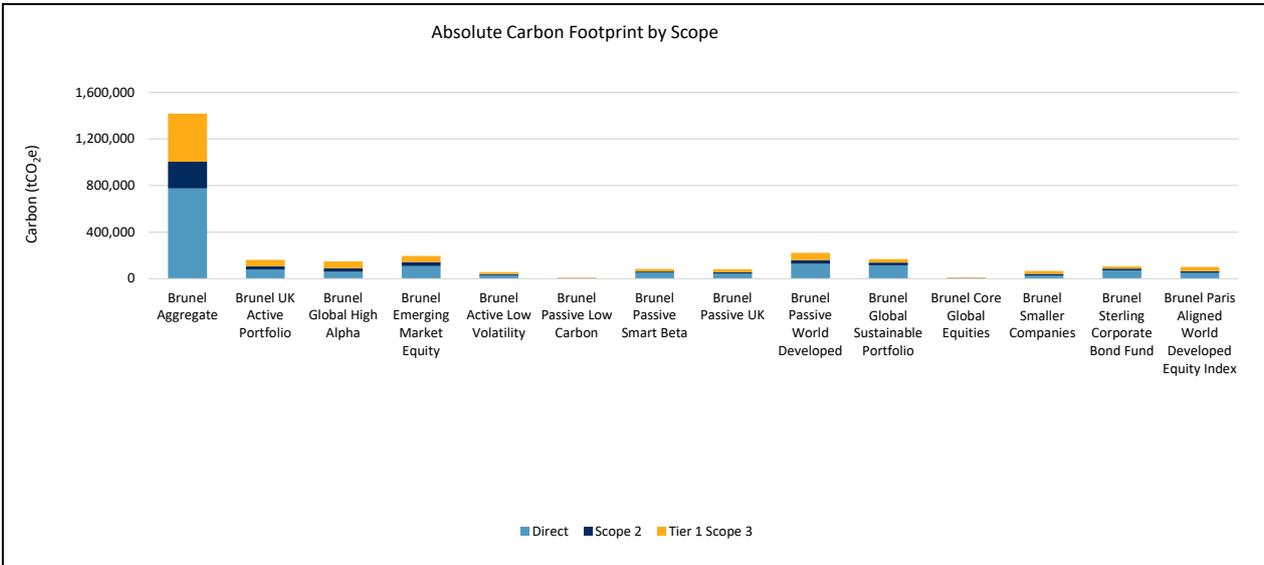
Source	FY 2020 Port.	FY 2020 Ben.	FY 2021 Port.	FY 2021 Ben.
Coal	12.77	19.61	10.31	18.16
Oil	7.69	14.59	6.01	13.70
Gas	3.47	11.12	5.27	12.09
Oil and/or Gas	0.87	0.84	0.11	0.66

**Full Disclosure** - Data disclosed by a company in an un-edited form.  
**Partial Disclosure** - Trucost has used data disclosed by a company but has made adjustments to match the reporting scope required by its research process. Values may also be derived from a previous year's disclosed data using changes in business activities and consolidated revenues.  
**Modelled** - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.  
 The chart above shows the total tonnes of apportioned CO<sub>2</sub> from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the apportioned embedded emissions by the VOH.

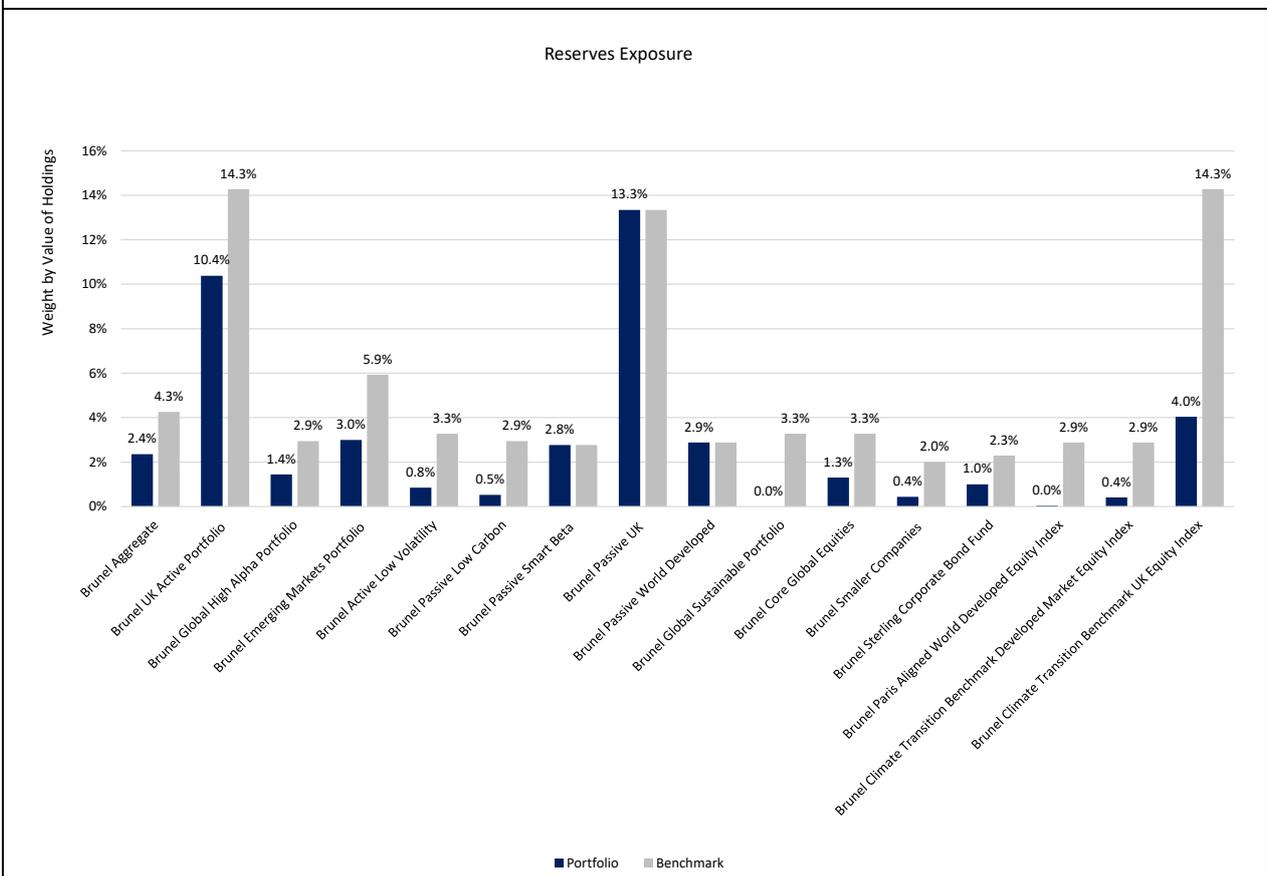
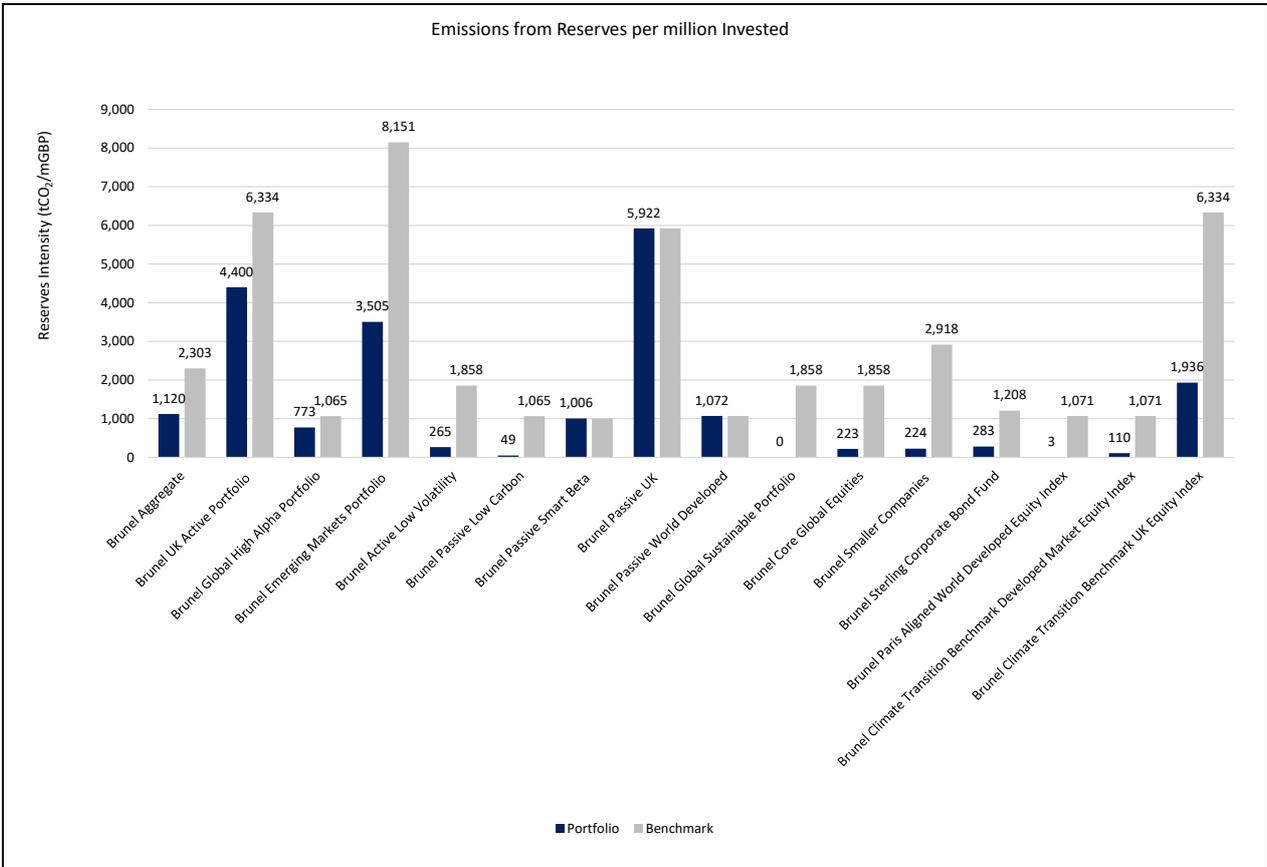
## Summary Sheet

Holdings as at 31st December 2021



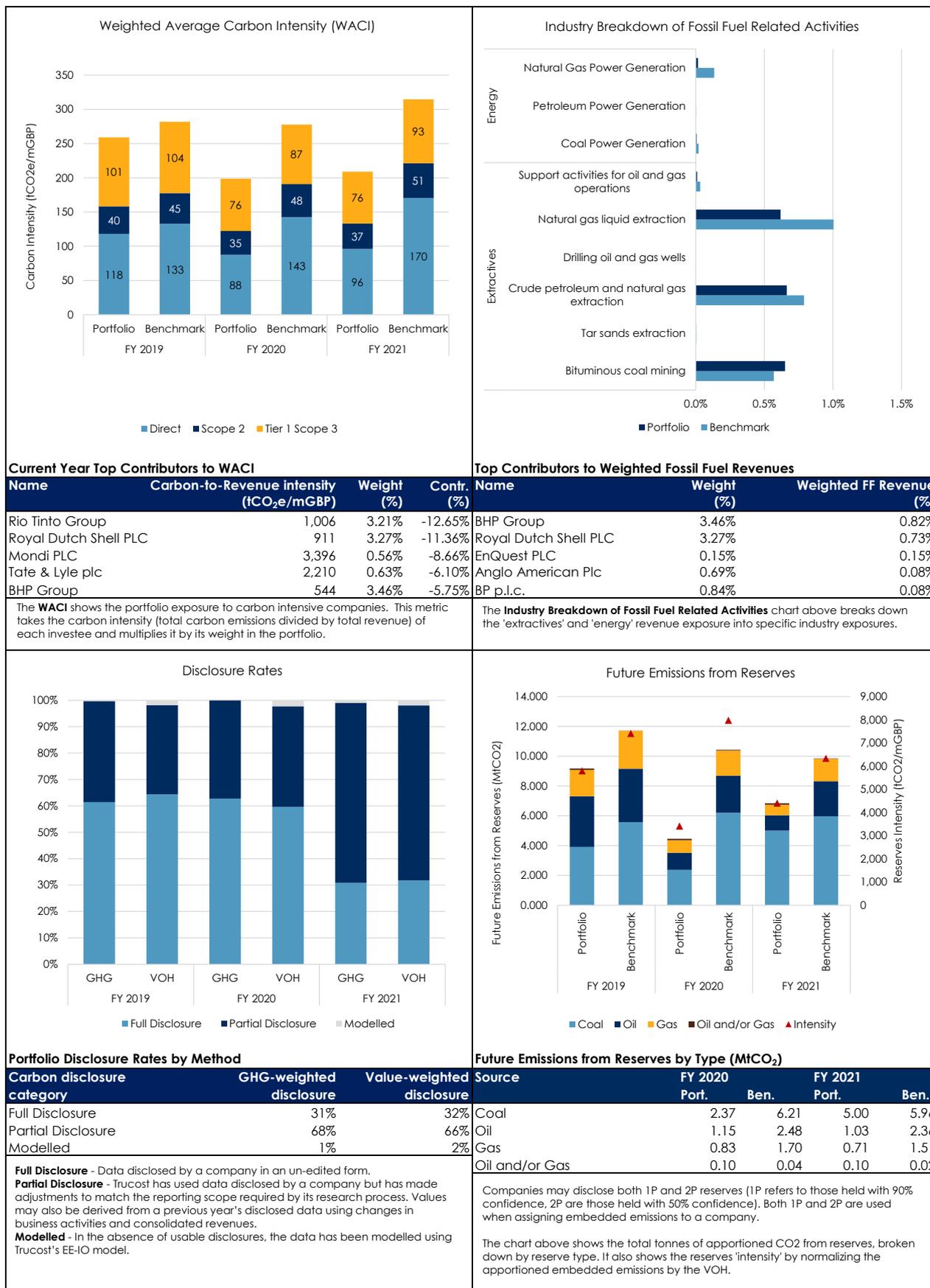
## Summary Sheet

Holdings as at 31st December 2021



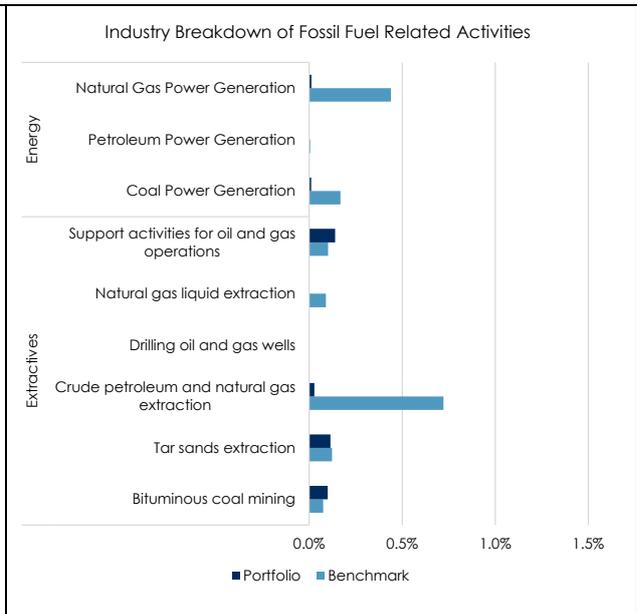
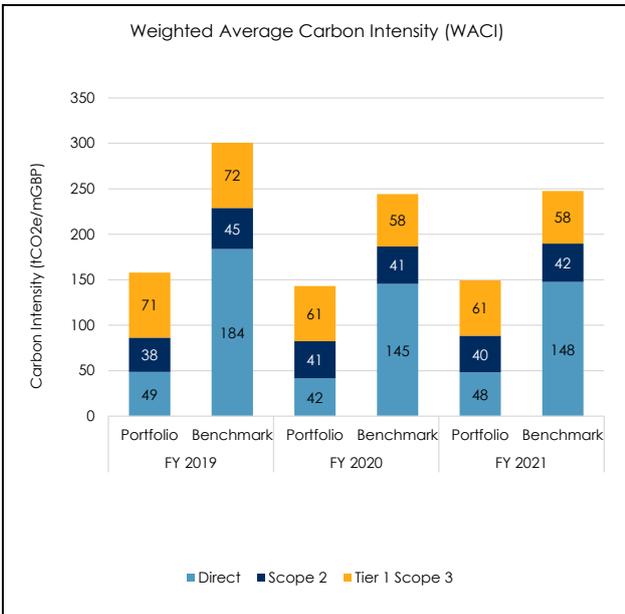
## Brunel UK Active Portfolio vs. FTSE Allshare ex IT

## Holdings as at 31st December 2021



## Brunel Global High Alpha Portfolio vs. MSCI World

## Holdings as at 31st December 2021

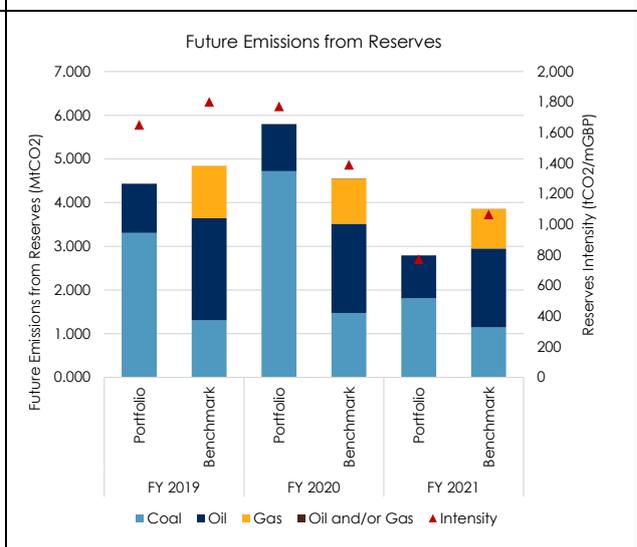
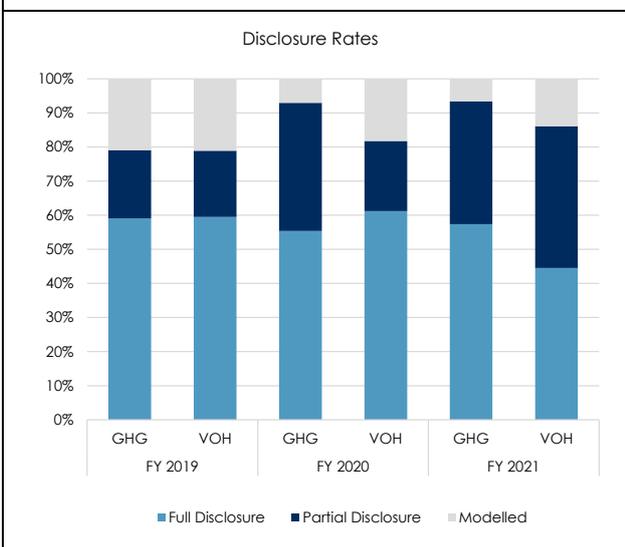


Name	Carbon-to-Revenue intensity (tCO <sub>2</sub> e/mGBP)	Weight (%)	Contr. (%)
Holcim Ltd	7,263	0.22%	-10.28%
Nestle SA	590	1.91%	-5.75%
InterContinental Hotels Group Plc	1,472	0.55%	-4.94%
Steel Dynamics, Inc.	1,083	0.69%	-4.36%
Suncor Energy Inc.	1,846	0.37%	-4.19%

Name	Weight (%)	Weighted FF Revenue (%)
Suncor Energy Inc.	0.37%	0.15%
Halliburton Company	0.14%	0.14%
Anglo American Plc	0.74%	0.09%
Berkshire Hathaway Inc.	0.75%	0.02%
Glencore Plc	0.33%	0.01%

The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

The **Industry Breakdown of Fossil Fuel Related Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.



Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	57%	45%
Partial Disclosure	36%	42%
Modelled	7%	14%

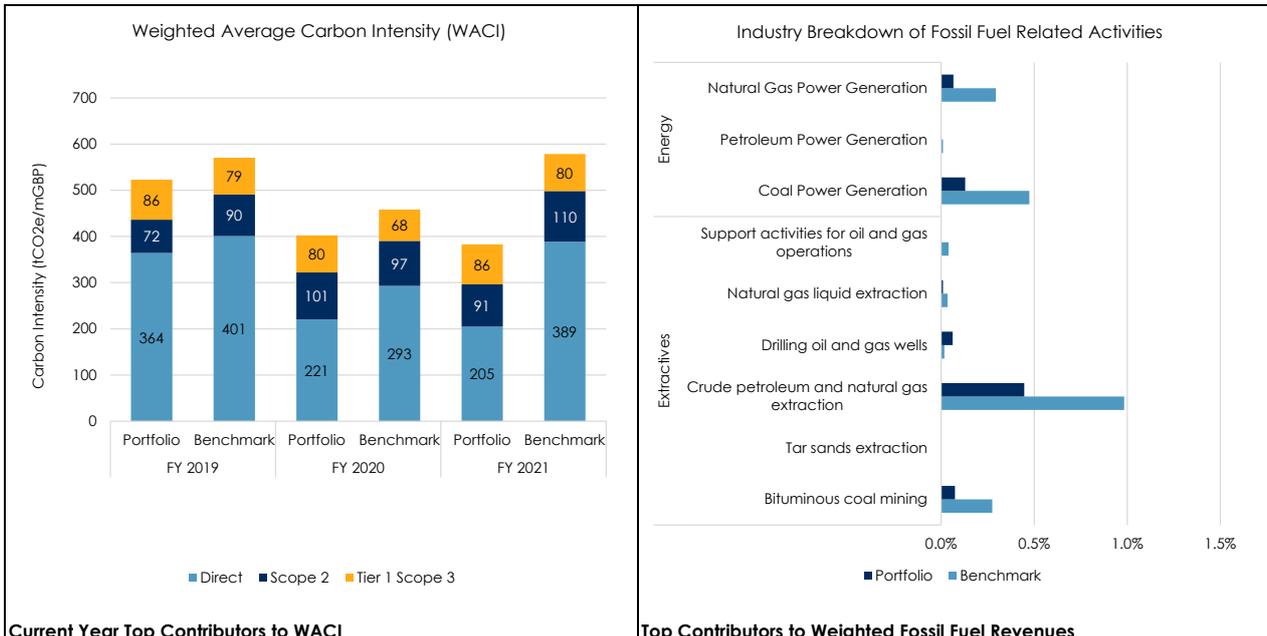
Source	FY 2020		FY 2021	
	Port.	Ben.	Port.	Ben.
Coal	4.72	1.47	1.81	1.14
Oil	1.08	2.04	0.98	1.81
Gas	0.00	1.02	0.00	0.90
Oil and/or Gas	0.00	0.01	0.00	0.00

**Full Disclosure** - Data disclosed by a company in an un-edited form.  
**Partial Disclosure** - Trucost has used data disclosed by a company but has made adjustments to match the reporting scope required by its research process. Values may also be derived from a previous year's disclosed data using changes in business activities and consolidated revenues.  
**Modelled** - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.  
 The chart above shows the total tonnes of apportioned CO<sub>2</sub> from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the apportioned embedded emissions by the VOH.

## Brunel Emerging Markets Portfolio vs. MSCI Emerging Markets

2021 Q4



### Current Year Top Contributors to WACI

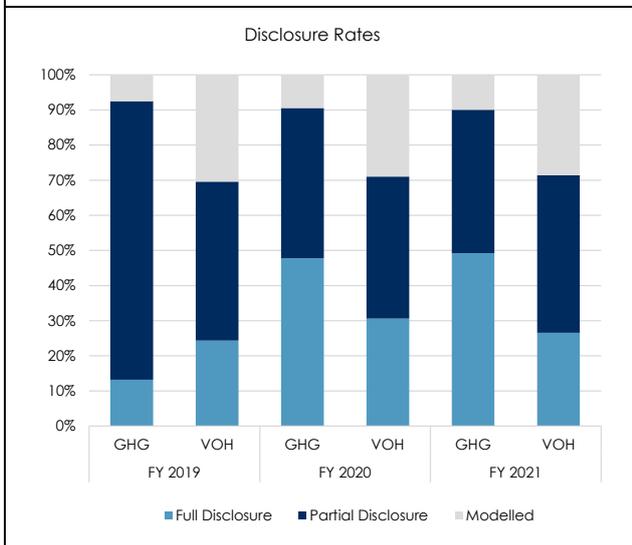
Name	Carbon-to-Revenue intensity (tCO <sub>2</sub> e/mGBP)	Weight (%)	Contr. (%)
PT Semen Indonesia (Persero) Tbk	14,749	0.23%	-8.50%
China Longyuan Power Group Corporati	3,147	0.93%	-6.75%
Airtac International Group	13,683	0.18%	-6.22%
China National Building Material Compar	15,076	0.12%	-4.65%
Public Joint Stock Company Gazprom	2,988	0.56%	-3.83%

### Top Contributors to Weighted Fossil Fuel Revenues

Name	Weight (%)	Weighted FF Revenue (%)
Parex Resources Inc.	0.14%	0.15%
PAO NOVATEK	0.13%	0.13%
PJSC LUKOIL	0.32%	0.11%
China Longyuan Power Group	0.93%	0.11%
Public Joint Stock Company G	0.56%	0.09%

The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

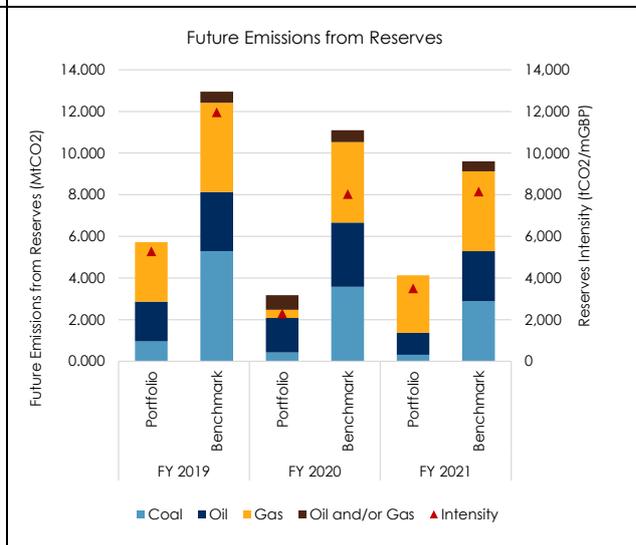
The **Industry Breakdown of Fossil Fuel Related Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.



### Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	49%	27%
Partial Disclosure	41%	45%
Modelled	10%	29%

**Full Disclosure** - Data disclosed by a company in an un-edited form.  
**Partial Disclosure** - Trucost has used data disclosed by a company but has made adjustments to match the reporting scope required by its research process. Values may also be derived from a previous year's disclosed data using changes in business activities and consolidated revenues.  
**Modelled** - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.



### Future Emissions from Reserves by Type (MtCO<sub>2</sub>)

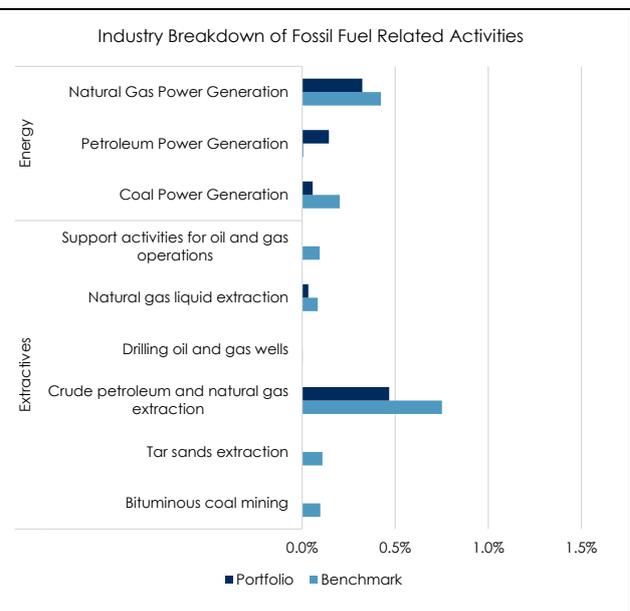
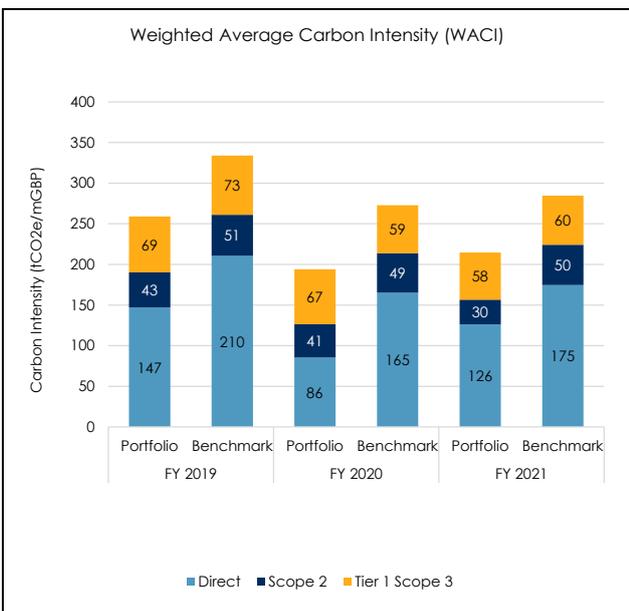
Source	FY 2020		FY 2021	
	Port.	Ben.	Port.	Ben.
Coal	0.43	3.58	0.31	2.89
Oil	1.66	3.08	1.06	2.41
Gas	0.39	3.86	2.76	3.83
Oil and/or Gas	0.71	0.57	0.00	0.47

Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.

The chart above shows the total tonnes of apportioned CO<sub>2</sub> from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the apportioned embedded emissions by the VOH.

## Brunel Active Low Volatility vs. MSCI ACWI

## Holdings as at 31st December 2021



### Current Year Top Contributors to WACI

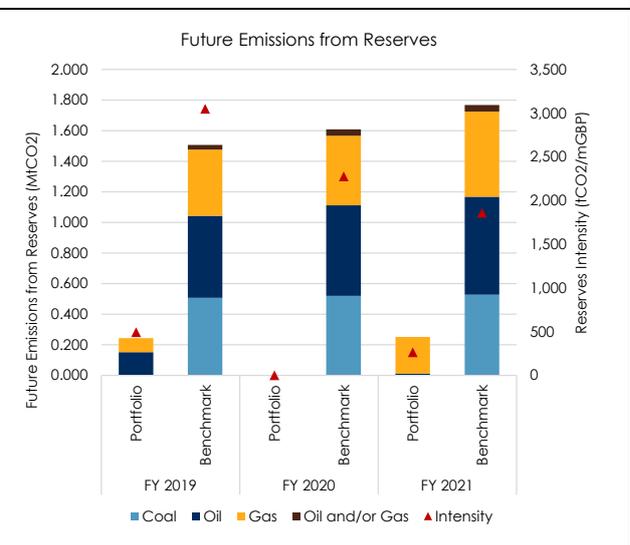
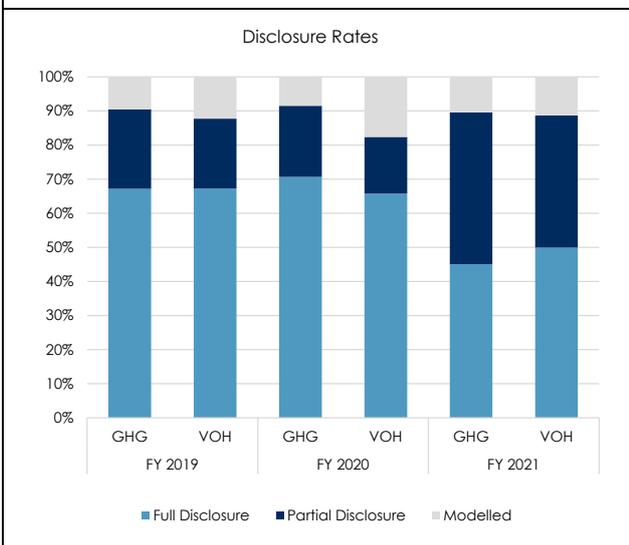
Name	Carbon-to-Revenue intensity (tCO <sub>2</sub> e/mGBP)	Weight (%)	Contr. (%)
Waste Management, Inc.	2,891	0.74%	-9.24%
National Fuel Gas Company	1,870	0.85%	-6.59%
Dominion Energy, Inc.	3,521	0.40%	-6.14%
Canadian Utilities Limited	3,888	0.28%	-4.74%
Algonquin Power & Utilities Corp.	2,037	0.51%	-4.33%

### Top Contributors to Weighted Fossil Fuel Revenues

Name	Weight (%)	Weighted FF Revenue (%)
National Fuel Gas Company	0.85%	0.34%
AltaGas Ltd.	0.58%	0.31%
Dominion Energy, Inc.	0.40%	0.15%
Hawaiian Electric Industries, Inc	0.35%	0.14%
Public Service Enterprise Group	0.16%	0.02%

The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

The **Industry Breakdown of Fossil Fuel Related Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.



### Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	45%	50%
Partial Disclosure	45%	39%
Modelled	10%	11%

### Future Emissions from Reserves by Type (MtCO<sub>2</sub>)

Source	FY 2020		FY 2021	
	Port.	Ben.	Port.	Ben.
Coal	0.00	0.52	0.00	0.53
Oil	0.00	0.59	0.01	0.64
Gas	0.00	0.46	0.24	0.56
Oil and/or Gas	0.00	0.04	0.00	0.04

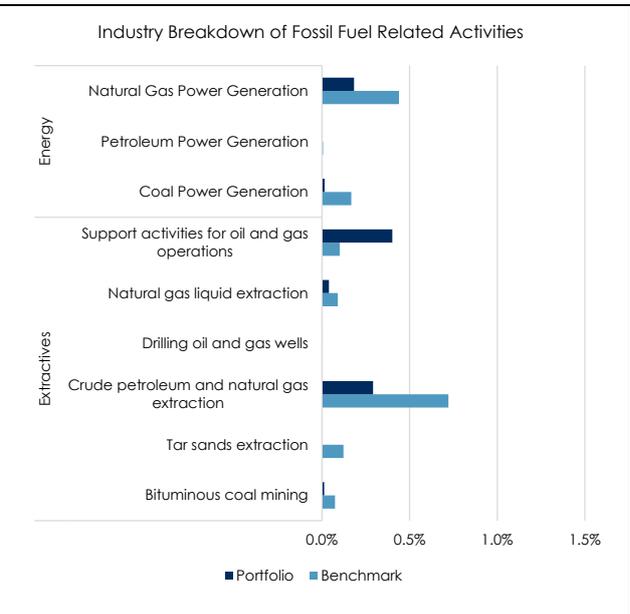
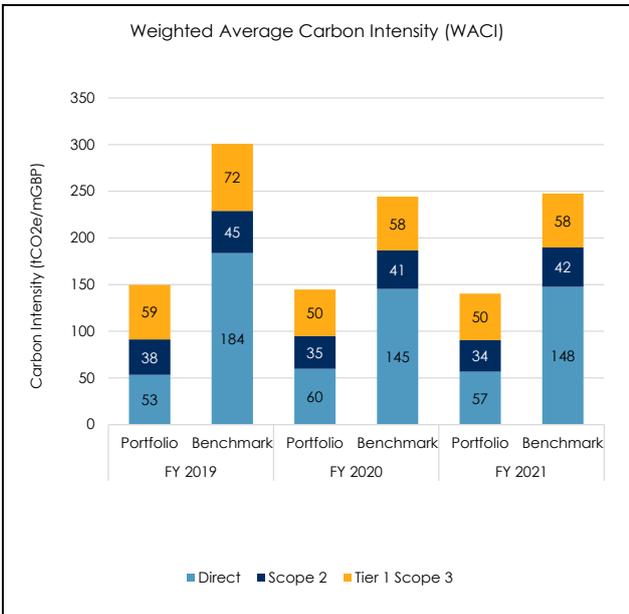
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**Modelled** - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.

The chart above shows the total tonnes of apportioned CO<sub>2</sub> from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the apportioned embedded emissions by the VOH.

## Brunel Passive Low Carbon vs. MSCI World

## Holdings as at 31st December 2021

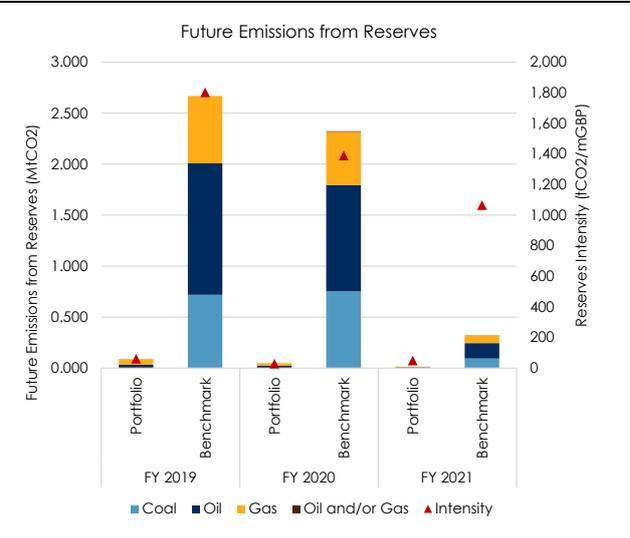
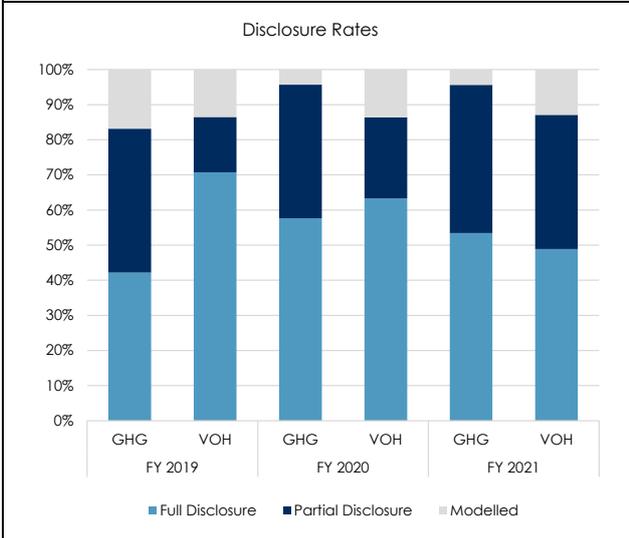


Name	Carbon-to-Revenue intensity (tCO <sub>2</sub> e/mGBP)	Weight (%)	Contr. (%)
NextEra Energy, Inc.	3,753	0.23%	-5.97%
Kinder Morgan, Inc.	2,022	0.25%	-3.31%
Linde plc	1,977	0.19%	-2.55%
Nestle SA	590	0.64%	-2.05%
The Williams Companies, Inc.	2,214	0.12%	-1.71%

Name	Weight (%)	Weighted FF Revenue (%)
Halliburton Company	0.26%	0.27%
Pioneer Natural Resources Cor	0.22%	0.22%
NextEra Energy, Inc.	0.23%	0.11%
AltaGas Ltd.	0.18%	0.10%
Schlumberger Limited	0.20%	0.07%

The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of each investee and multiplies it by its weight in the portfolio.

The **Industry Breakdown of Fossil Fuel Related Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.



Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	53%	49%
Partial Disclosure	42%	38%
Modelled	4%	13%

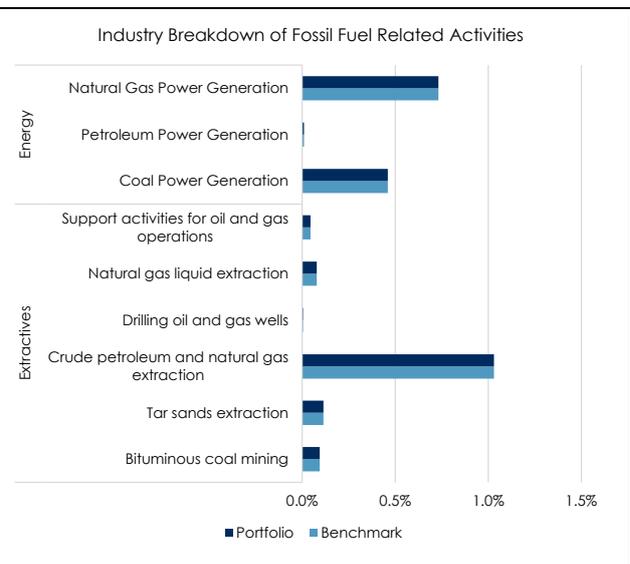
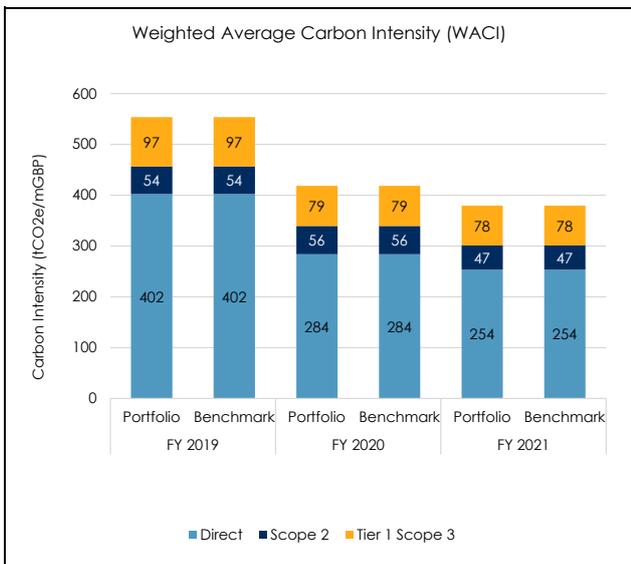
Source	FY 2020		FY 2021	
	Port.	Ben.	Port.	Ben.
Coal	0.00	0.75	0.00	0.09
Oil	0.02	1.04	0.01	0.15
Gas	0.02	0.52	0.01	0.07
Oil and/or Gas	0.00	0.01	0.00	0.00

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**Modelled** - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.  
 The chart above shows the total tonnes of apportioned CO<sub>2</sub> from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the apportioned embedded emissions by the VOH.

## Brunel Passive Smart Beta

## Holdings as at 31st December 2021

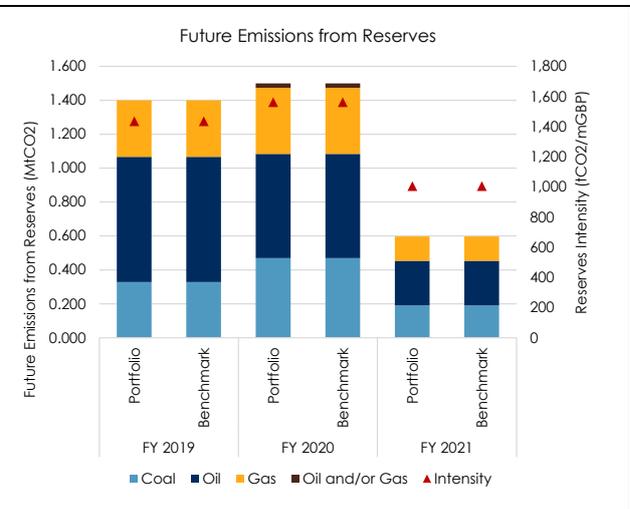
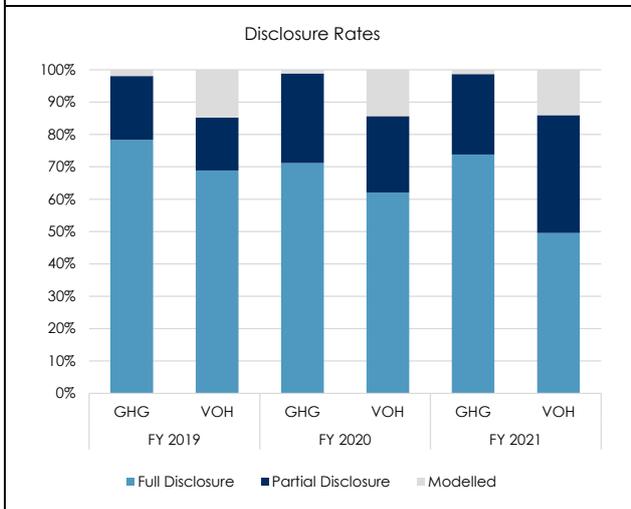


Name	Carbon-to-Revenue intensity (tCO <sub>2</sub> e/mGBP)	Weight (%)	Contr. (%)
The Southern Company	5,264	0.45%	-5.76%
Duke Energy Corporation	4,653	0.45%	-5.07%
Ameren Corporation	6,857	0.29%	-4.89%
American Electric Power Company, Inc.	4,730	0.35%	-4.03%
Xcel Energy Inc.	5,297	0.31%	-4.03%

Name	Weight (%)	Weighted FF Revenue (%)
ConocoPhillips	0.28%	0.28%
Duke Energy Corporation	0.45%	0.22%
Hess Corporation	0.17%	0.17%
Diamondback Energy, Inc.	0.17%	0.16%
The Southern Company	0.45%	0.16%

The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of

The **Industry Breakdown of Fossil Fuel Related Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.



Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	74%	50%
Partial Disclosure	25%	36%
Modelled	1%	14%

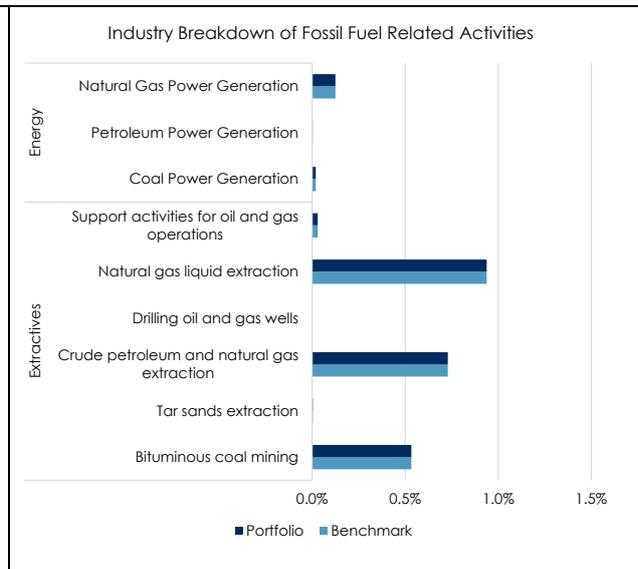
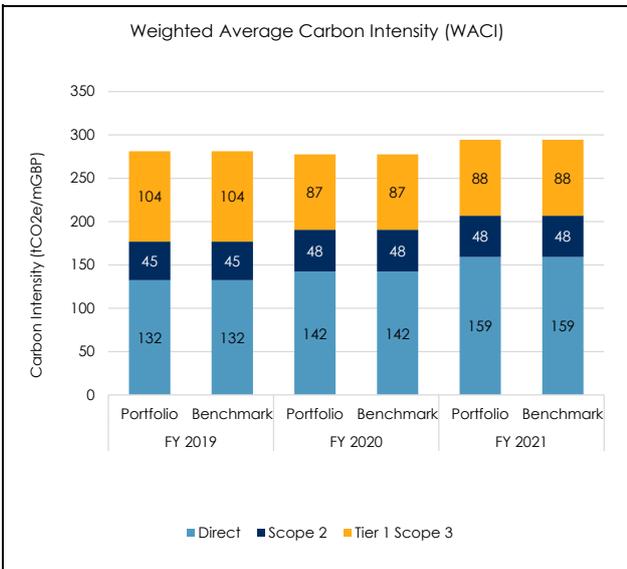
Source	FY 2020		FY 2021	
	Port.	Ben.	Port.	Ben.
Coal	0.47	0.47	0.19	0.19
Oil	0.61	0.61	0.26	0.26
Gas	0.39	0.39	0.14	0.14
Oil and/or Gas	0.03	0.03	0.00	0.00

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Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.  
 The chart above shows the total tonnes of apportioned CO<sub>2</sub> from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the

## Brunel Passive UK

## Holdings as at 31st December 2021



### Current Year Top Contributors to WACI

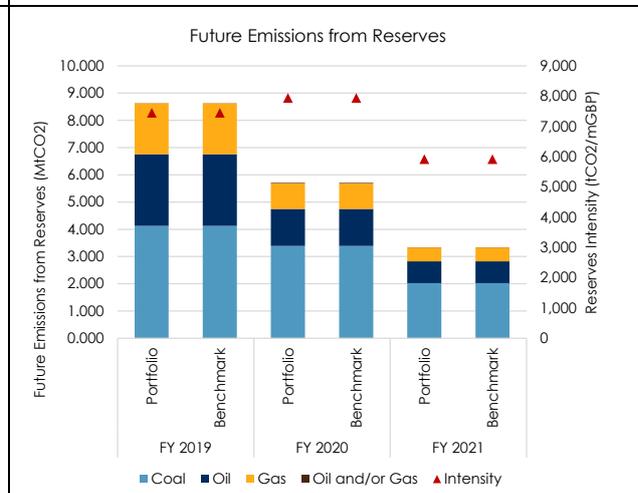
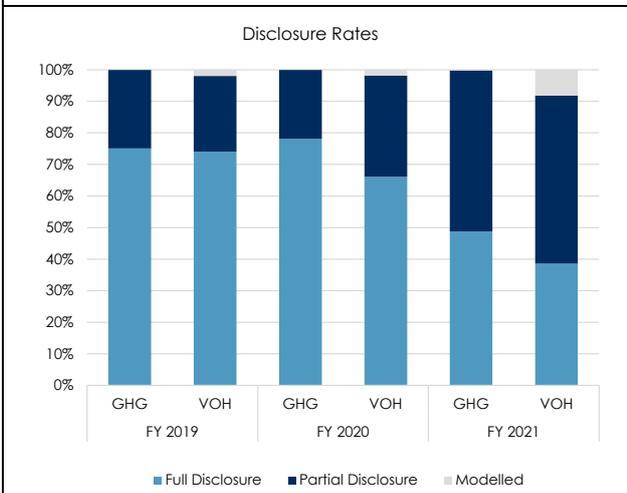
Name	Carbon-to-Revenue intensity (tCO <sub>2</sub> e/mGBP)	Weight (%)	Contr. (%)
Royal Dutch Shell PLC	911	5.03%	-11.09%
CRH Plc	2,088	1.22%	-7.52%
Rio Tinto Group	1,006	2.14%	-5.28%
BP p.l.c.	746	2.58%	-4.05%
Mondi PLC	3,396	0.36%	-3.77%

### Top Contributors to Weighted Fossil Fuel Revenues

Name	Weight (%)	Weighted FF Revenue (%)
Royal Dutch Shell PLC	5.03%	1.19%
BHP Group	1.84%	0.47%
BP p.l.c.	2.58%	0.25%
Anglo American Plc	1.48%	0.19%
SSE plc	0.70%	0.11%

The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of

The **Industry Breakdown of Fossil Fuel Related Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.



### Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	49%	39%
Partial Disclosure	51%	53%
Modelled	0%	8%

### Future Emissions from Reserves by Type (MtCO<sub>2</sub>)

Source	FY 2020		FY 2021	
	Port.	Ben.	Port.	Ben.
Coal	3.39	3.39	2.03	2.03
Oil	1.36	1.36	0.80	0.80
Gas	0.93	0.93	0.51	0.51
Oil and/or Gas	0.02	0.02	0.01	0.01

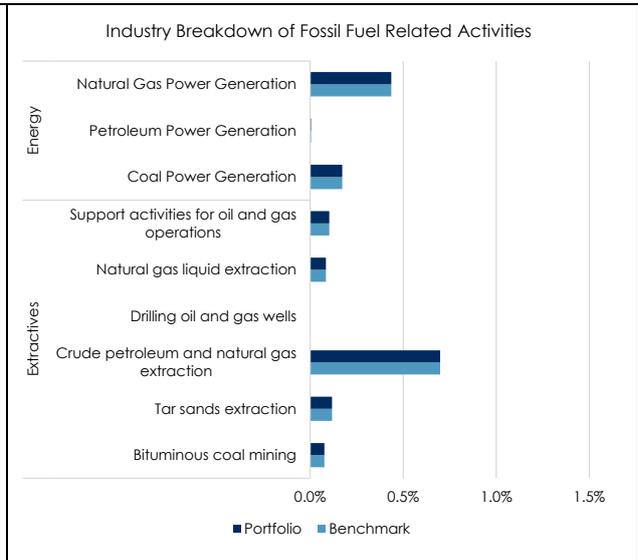
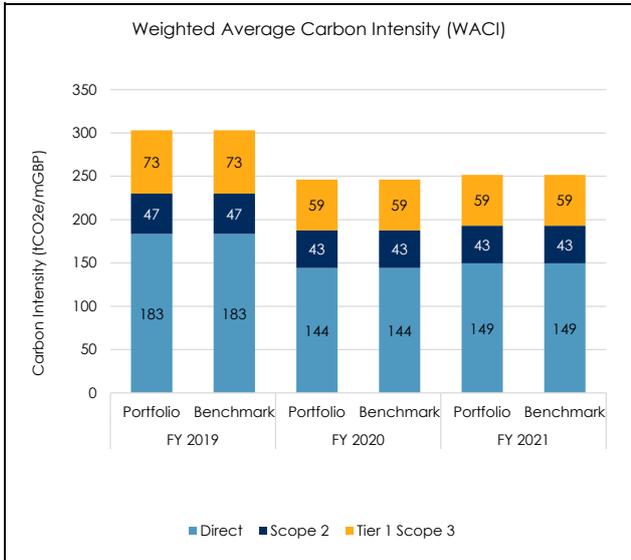
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The chart above shows the total tonnes of apportioned CO<sub>2</sub> from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the

## Brunel Passive World Developed

## Holdings as at 31st December 2021



### Current Year Top Contributors to WACI

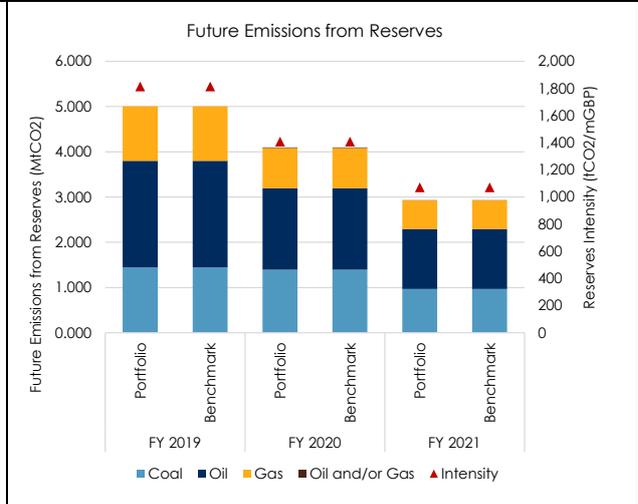
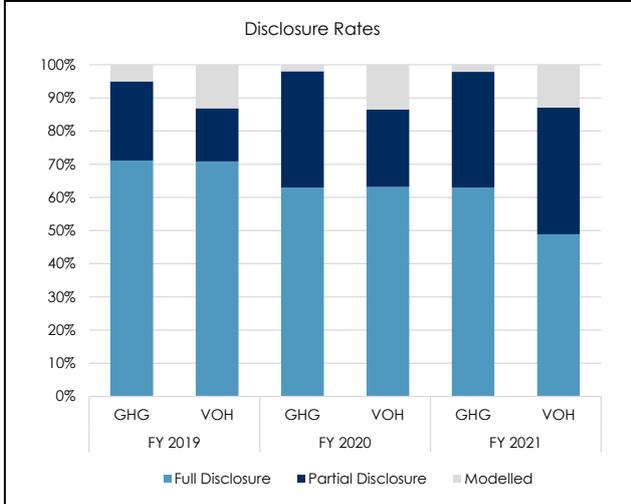
Name	Carbon-to-Revenue intensity (tCO <sub>2</sub> e/mGBP)	Weight (%)	Contr. (%)
NextEra Energy, Inc.	3,753	0.29%	-4.03%
The Southern Company	5,264	0.11%	-2.28%
Duke Energy Corporation	4,653	0.13%	-2.23%
Linde plc	1,977	0.28%	-1.94%
Exxon Mobil Corporation	1,245	0.41%	-1.62%

### Top Contributors to Weighted Fossil Fuel Revenues

Name	Weight (%)	Weighted FF Revenue (%)
ConocoPhillips	0.15%	0.15%
NextEra Energy, Inc.	0.29%	0.14%
Chevron Corporation	0.36%	0.10%
EOG Resources, Inc.	0.08%	0.08%
Canadian Natural Resources Li	0.08%	0.08%

The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of

The **Industry Breakdown of Fossil Fuel Related Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.



### Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	63%	49%
Partial Disclosure	35%	38%
Modelled	2%	13%

### Future Emissions from Reserves by Type (MtCO<sub>2</sub>)

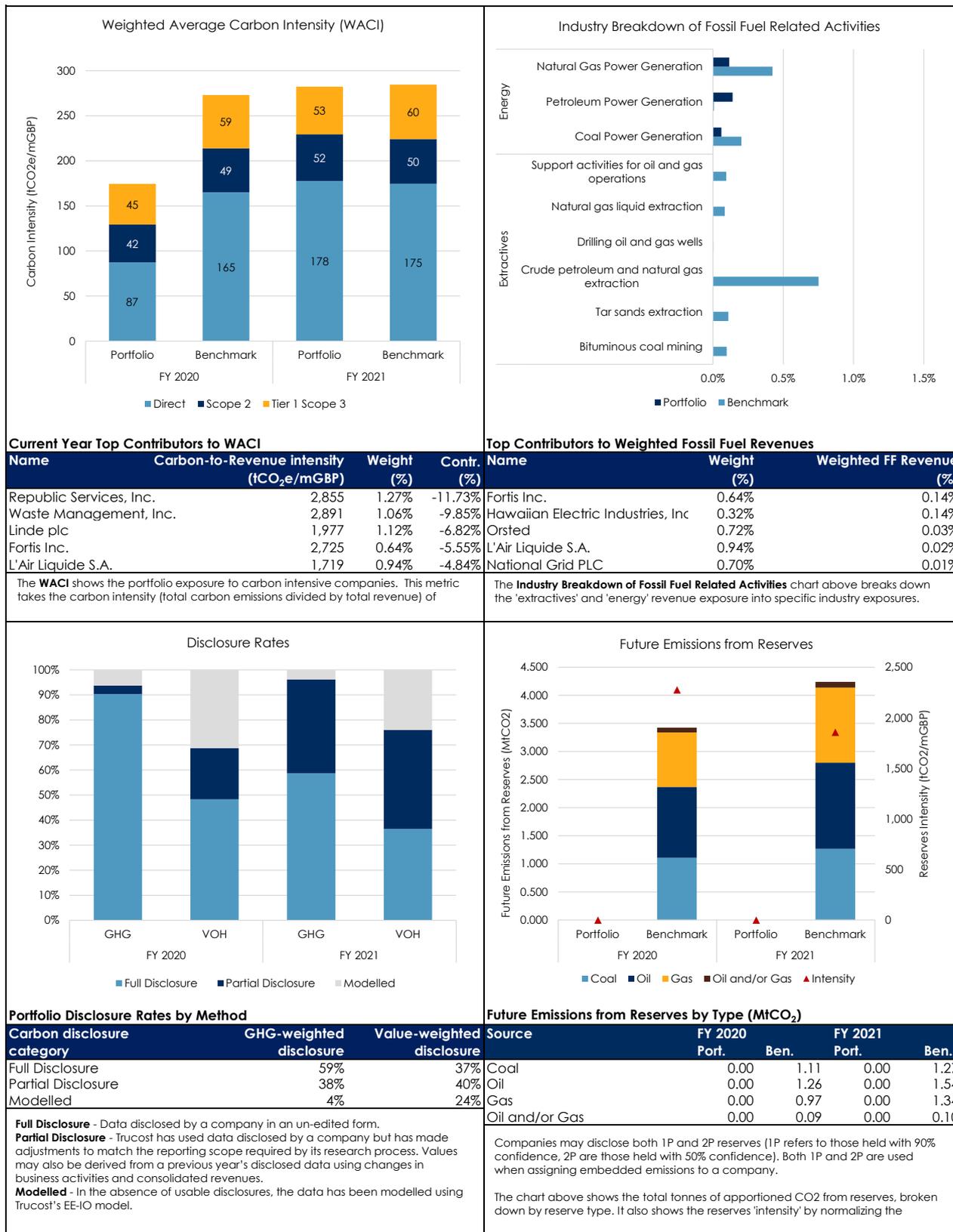
Source	FY 2020		FY 2021	
	Port.	Ben.	Port.	Ben.
Coal	1.40	1.40	0.97	0.97
Oil	1.80	1.80	1.32	1.32
Gas	0.89	0.89	0.63	0.63
Oil and/or Gas	0.01	0.01	0.00	0.00

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 The chart above shows the total tonnes of apportioned CO<sub>2</sub> from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the

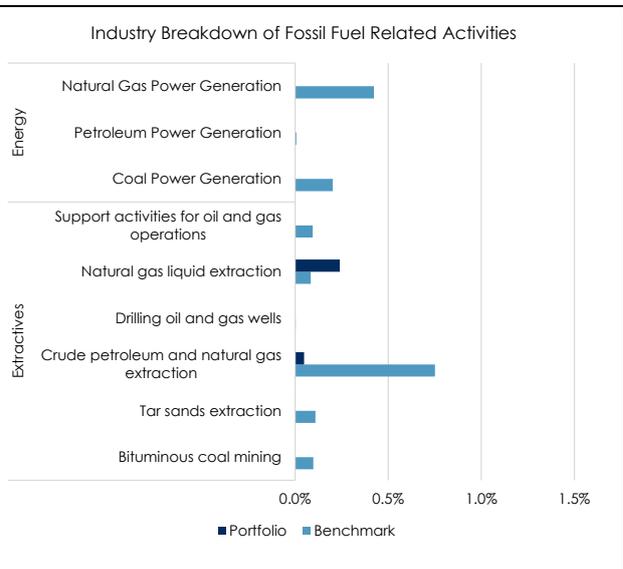
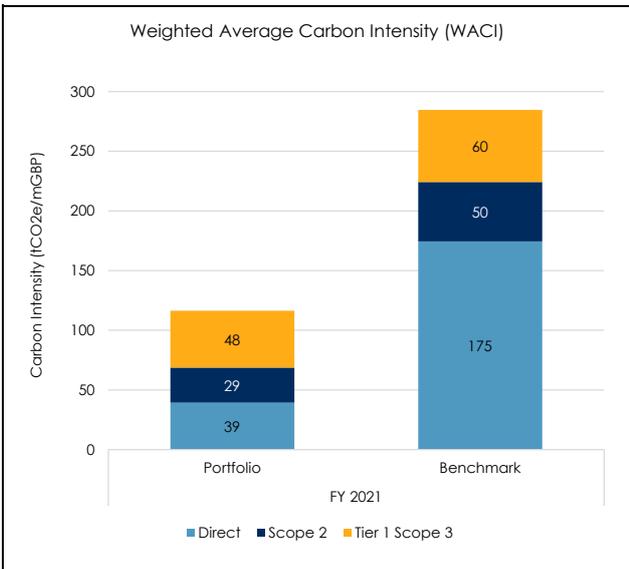
## Brunel Global Sustainable Portfolio vs. MSCI ACWI

## Holdings as at 31st December 2021



## Brunel Core Global Equities vs. MSCI ACWI

Holdings as at 31st December 2021



### Current Year Top Contributors to WACI

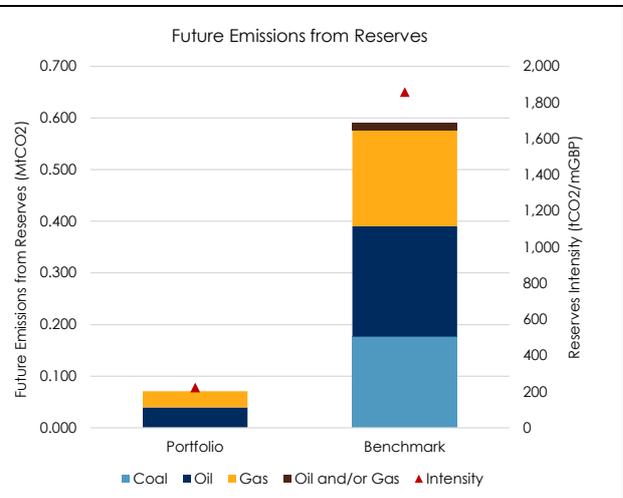
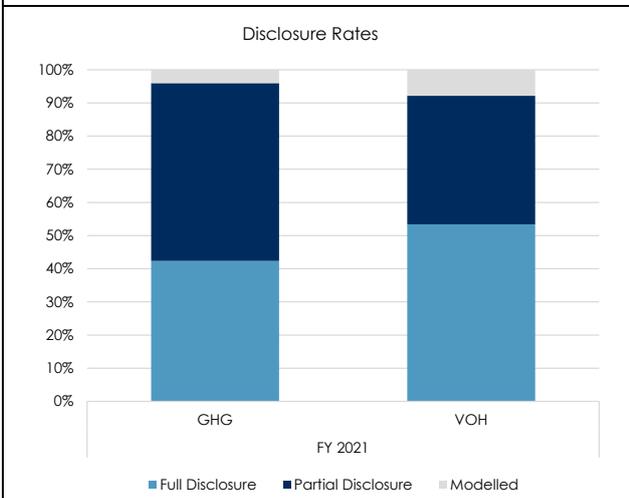
Name	Carbon-to-Revenue intensity (tCO <sub>2</sub> e/mGBP)	Weight (%)	Contr. (%)
Norfolk Southern Corporation	639	2.05%	-9.39%
Royal Dutch Shell PLC	911	1.30%	-9.02%
Novozymes A/S	649	1.50%	-6.98%
Abbott Laboratories	283	3.52%	-5.24%
Associated British Foods plc	863	0.77%	-5.01%

### Top Contributors to Weighted Fossil Fuel Revenues

Name	Weight (%)	Weighted FF Revenue (%)
Royal Dutch Shell PLC	1.30%	0.29%

The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of

The **Industry Breakdown of Fossil Fuel Related Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.



### Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	42%	53%
Partial Disclosure	54%	39%
Modelled	4%	8%

### Future Emissions from Reserves by Type (MtCO<sub>2</sub>)

Source	FY 2020 Port.	FY 2020 Ben.	FY 2021 Port.	FY 2021 Ben.
Coal	NA	NA	0.00	0.18
Oil	NA	NA	0.04	0.21
Gas	NA	NA	0.03	0.19
Oil and/or Gas	NA	NA	0.00	0.01

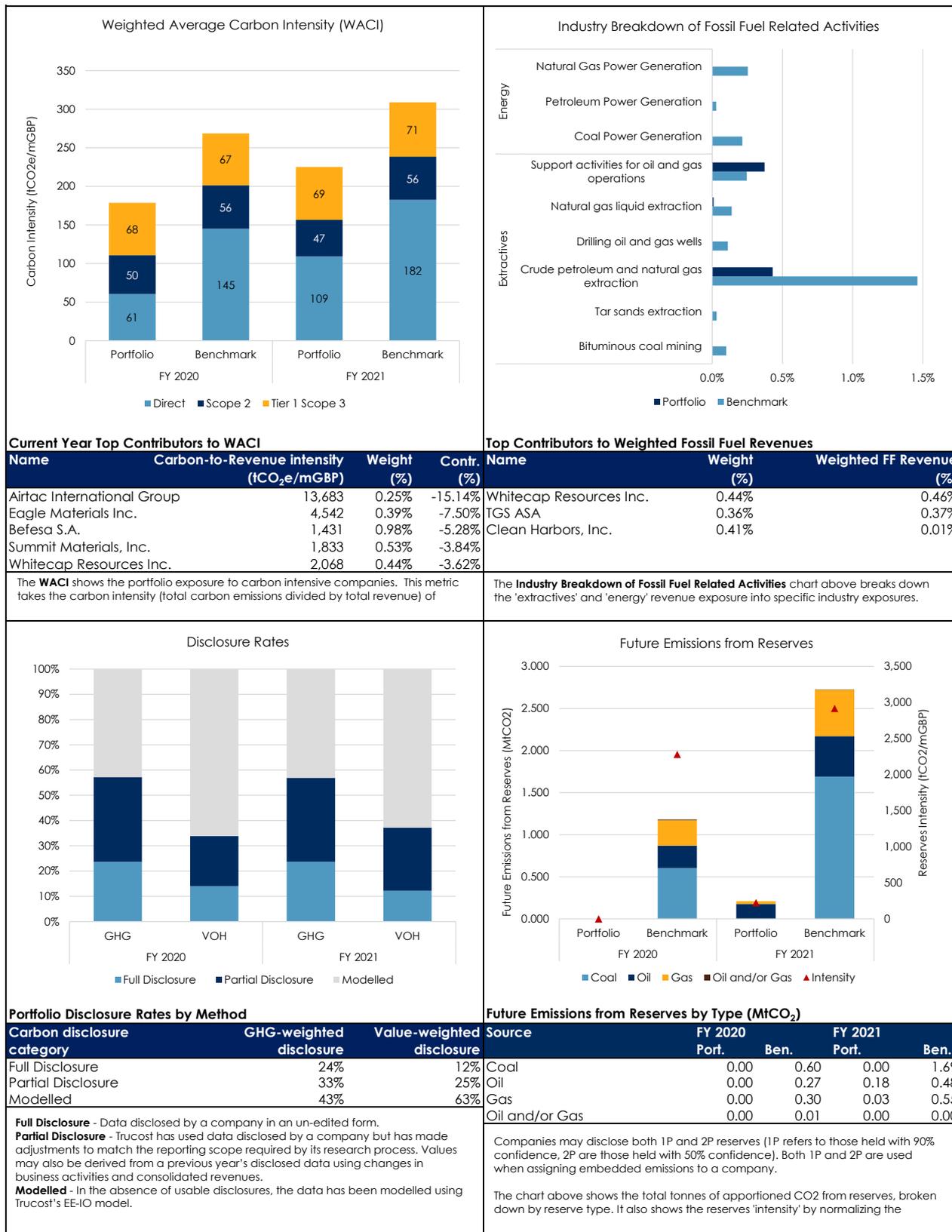
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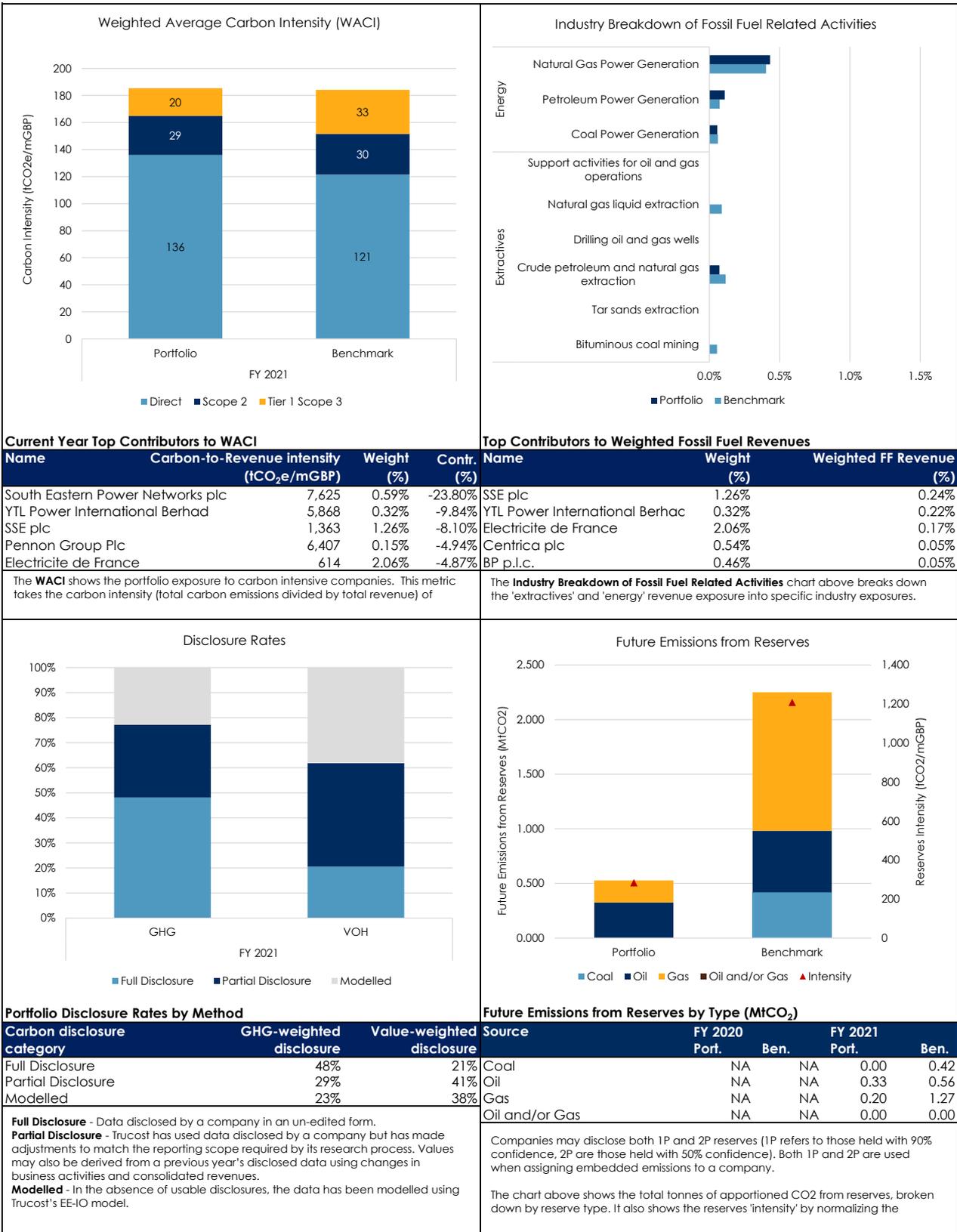
## Brunel Smaller Companies vs. MSCI World Small Cap

## Holdings as at 31st December 2021



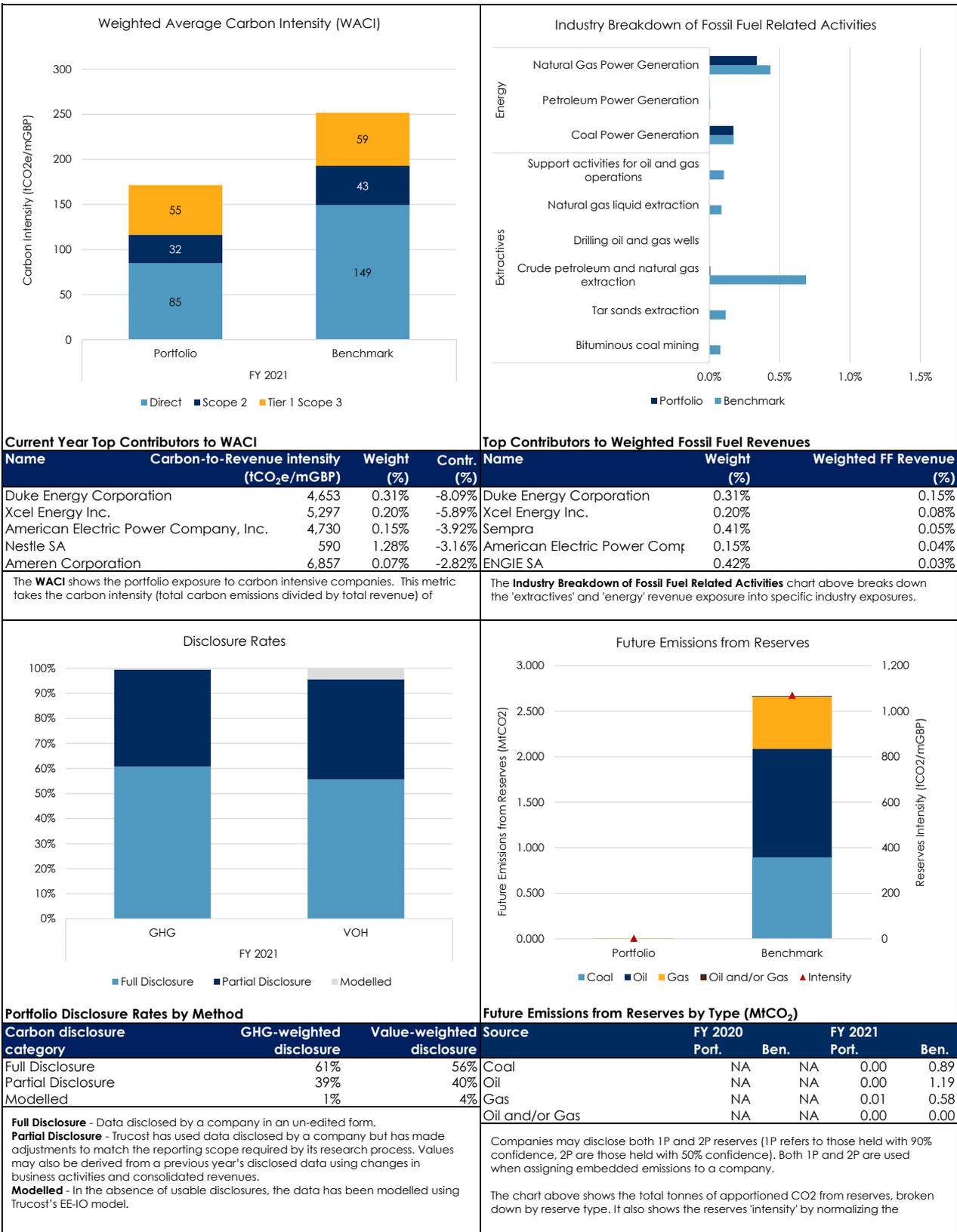
## Brunel Sterling Corporate Bond Fund vs. iboxx £ Non-Gilts

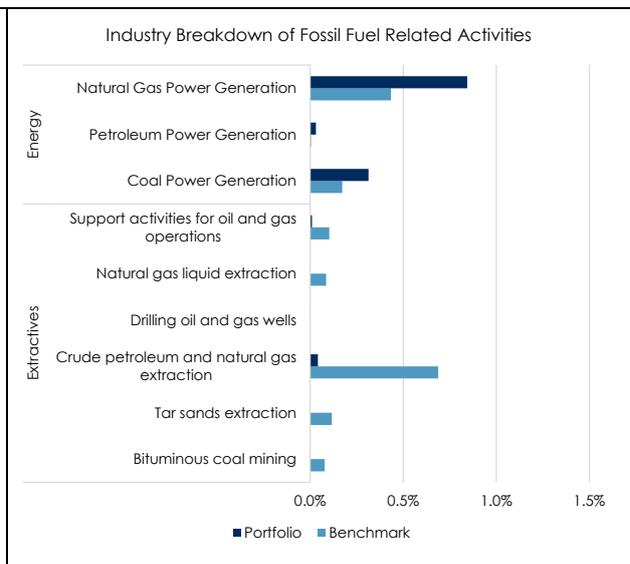
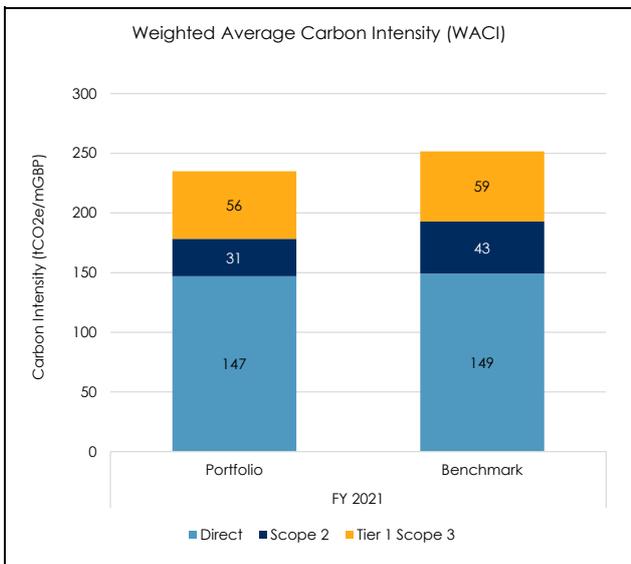
## Holdings as at 31st December 2021



## Brunel Paris Aligned World Developed Equity Index vs. FTSE World Developed

2021 Q4





#### Current Year Top Contributors to WACI

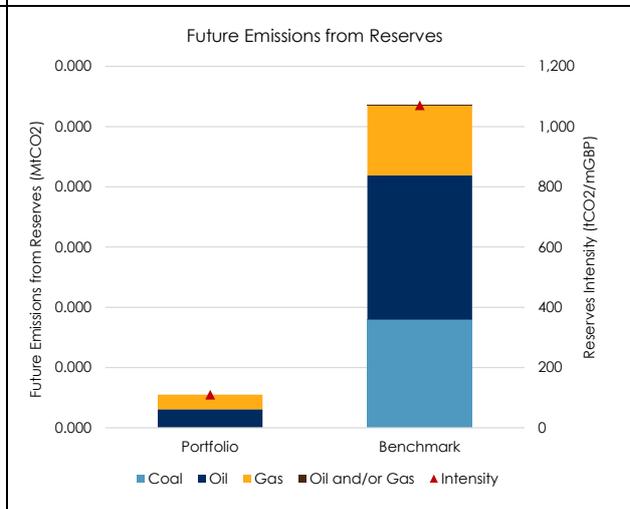
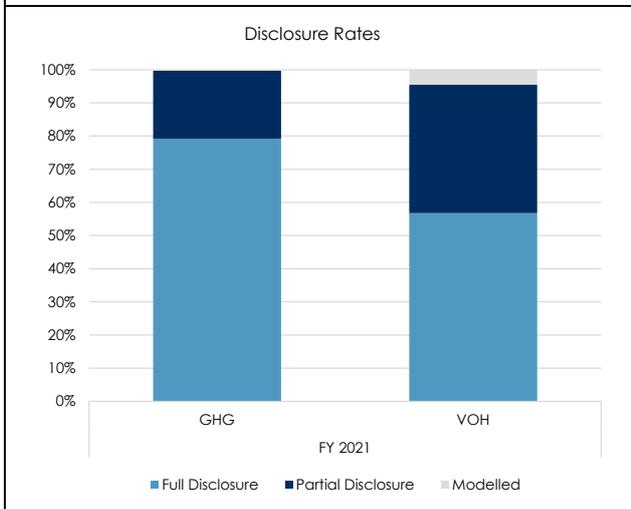
Name	Carbon-to-Revenue Intensity (tCO <sub>2</sub> e/mGBP)	Weight (%)	Contr. (%)
Dominion Energy, Inc.	3,521	1.01%	-14.30%
The Southern Company	5,264	0.25%	-5.34%
Duke Energy Corporation	4,653	0.25%	-4.75%
Xcel Energy Inc.	5,297	0.15%	-3.31%
Enel SpA	1,017	0.83%	-2.79%

#### Top Contributors to Weighted Fossil Fuel Revenues

Name	Weight (%)	Weighted FF Revenue (%)
Dominion Energy, Inc.	1.01%	0.37%
Duke Energy Corporation	0.25%	0.12%
The Southern Company	0.25%	0.09%
Enel SpA	0.83%	0.08%
Xcel Energy Inc.	0.15%	0.06%

The **WACI** shows the portfolio exposure to carbon intensive companies. This metric takes the carbon intensity (total carbon emissions divided by total revenue) of

The **Industry Breakdown of Fossil Fuel Related Activities** chart above breaks down the 'extractives' and 'energy' revenue exposure into specific industry exposures.



#### Portfolio Disclosure Rates by Method

Carbon disclosure category	GHG-weighted disclosure	Value-weighted disclosure
Full Disclosure	79%	57%
Partial Disclosure	21%	39%
Modelled	0%	5%

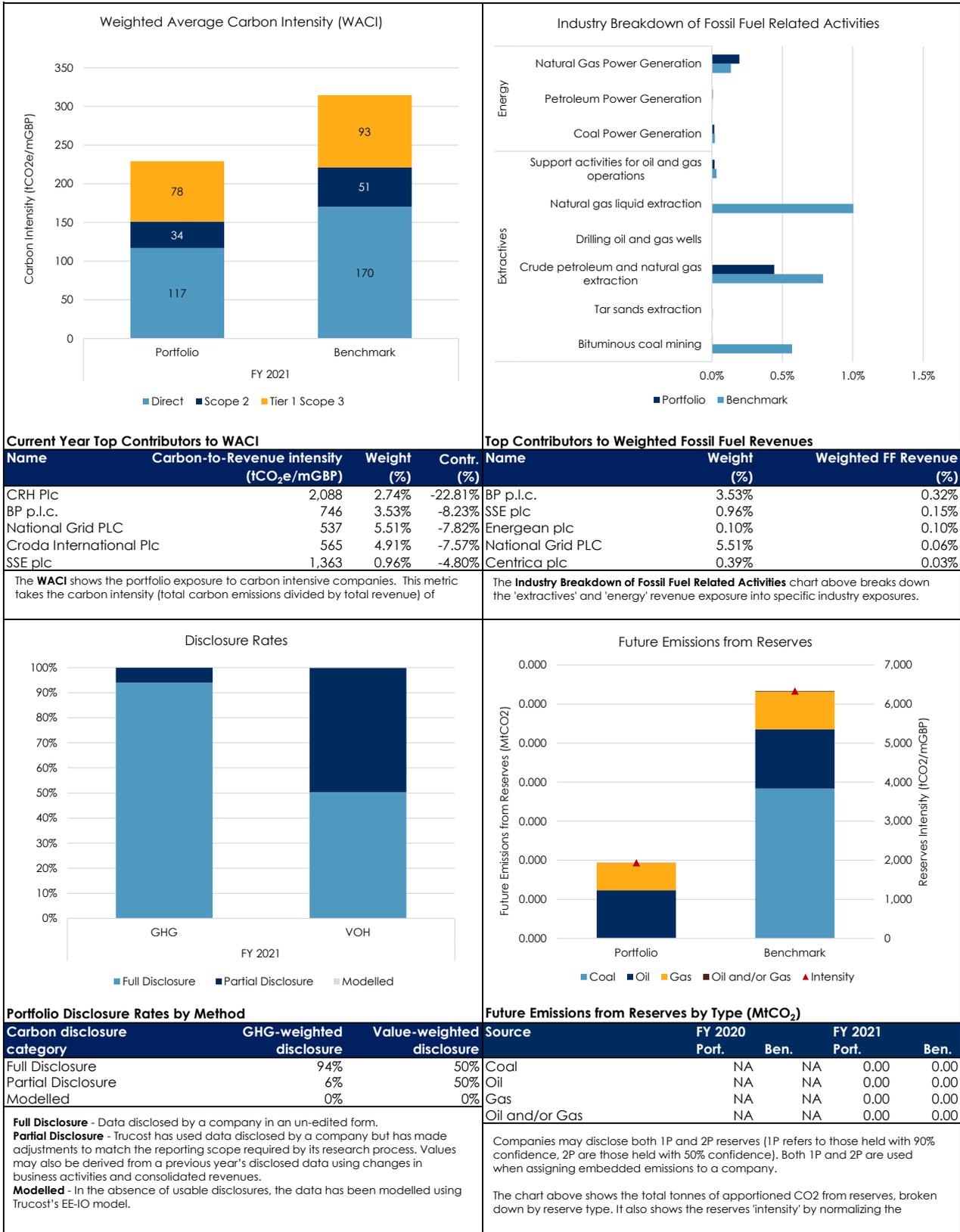
#### Future Emissions from Reserves by Type (MtCO<sub>2</sub>)

Source	FY 2020 Port.	FY 2020 Ben.	FY 2021 Port.	FY 2021 Ben.
Coal	NA	NA	0.00	0.00
Oil	NA	NA	0.00	0.00
Gas	NA	NA	0.00	0.00
Oil and/or Gas	NA	NA	0.00	0.00

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**Modelled** - In the absence of usable disclosures, the data has been modelled using Trucost's EE-IO model.

Companies may disclose both 1P and 2P reserves (1P refers to those held with 90% confidence, 2P are those held with 50% confidence). Both 1P and 2P are used when assigning embedded emissions to a company.

The chart above shows the total tonnes of apportioned CO<sub>2</sub> from reserves, broken down by reserve type. It also shows the reserves 'intensity' by normalizing the



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