



2021 Half Year Results

29 July 2021

Agenda

Operational Review

Financial Review

Strategy Update

Presenters

Will Gardiner, CEO

Andy Skelton, CFO

Forward Looking Statements

This presentation may contain certain statements, expectations, statistics, projections and other information that are or may be forward-looking. The accuracy and completeness of all such statements, including, without limitation, statements regarding the future financial position, strategy, projected costs, plans, beliefs and objectives for the management of future operations of Drax Group plc ("Drax") and its subsidiaries (the "Group"), including the integration of Pinnacle Renewable Energy Inc ("Pinnacle") as part of Drax, are not warranted or guaranteed. By their nature, forward-looking statements involve risk and uncertainty because they relate to events and depend on circumstances that may occur in the future. Although Drax believes that the statements, expectations, statistics and projections and other information reflected in such statements are reasonable, they reflect Drax's current view and no assurance can be given that they will prove to be correct. Such events and statements involve risks and uncertainties. Actual results and outcomes may differ materially from those expressed or implied by those forward-looking statements. There are a number of factors, many of which are beyond the control of the Group, which could cause actual results and developments to differ materially from those expressed or implied by such forward-looking statements. These include, but are not limited to, factors such as: future revenues being lower than expected; increasing competitive pressures in the industry; target dates for the commissioning of plants not being achieved, the expected returns from the acquisition of Pinnacle not being fully realised (for example due to one or more risks as identified in the circular issued to shareholders in connection with the acquisition arising) capital investments being delayed and/or general economic conditions or conditions affecting the relevant industry, both domestically and internationally, being less favourable than expected. We do not intend to publicly update or revise these projections or other forward-looking statements to reflect events or circumstances after the date hereof, and we do not assume any responsibility for doing so.

Our Purpose

Enabling a zero carbon, lower cost energy future

Our Strategy

We will build a long-term future for sustainable biomass
We will be the leading provider of power system stability
We will give our customers control of their energy

Our Ambition

To be a carbon negative company by 2030

Operational Review

H1 2021 Highlights

Good operational and financial performance

Substantially a pure play renewable and the world's leading sustainable biomass generation and supply business



Financial

4% increase in Adjusted EBITDA

Strong liquidity and balance sheet

10% increase in dividend

Pinnacle – in line with expectations



Operations

Pellet Production

8% reduction in production costs

70% increase in output

Generation

>90% reduction in CO₂ vs 2012

UK's largest source of renewable generation by output

Strong system support performance

Customers

Good I&C performance

Evaluating options for SME



Strategic

Acquisition of Pinnacle

Expanded biomass supply chain

End of commercial coal generation

Sale of gas generation assets

Progress Towards a Carbon Negative Future

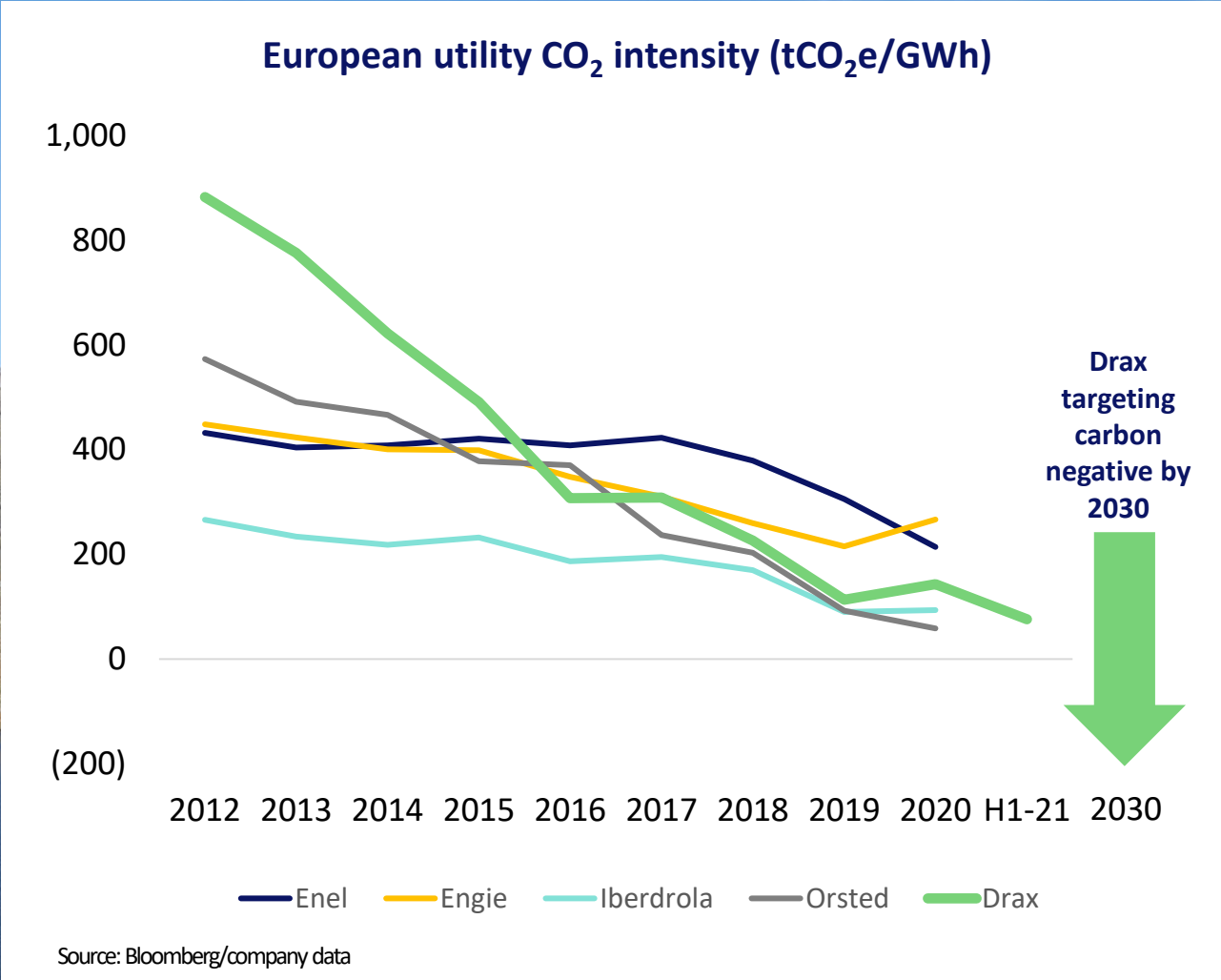
>90% reduction in generation emissions since 2012

End of commercial coal operations and sale of gas generation assets

Generation portfolio – biomass and hydro

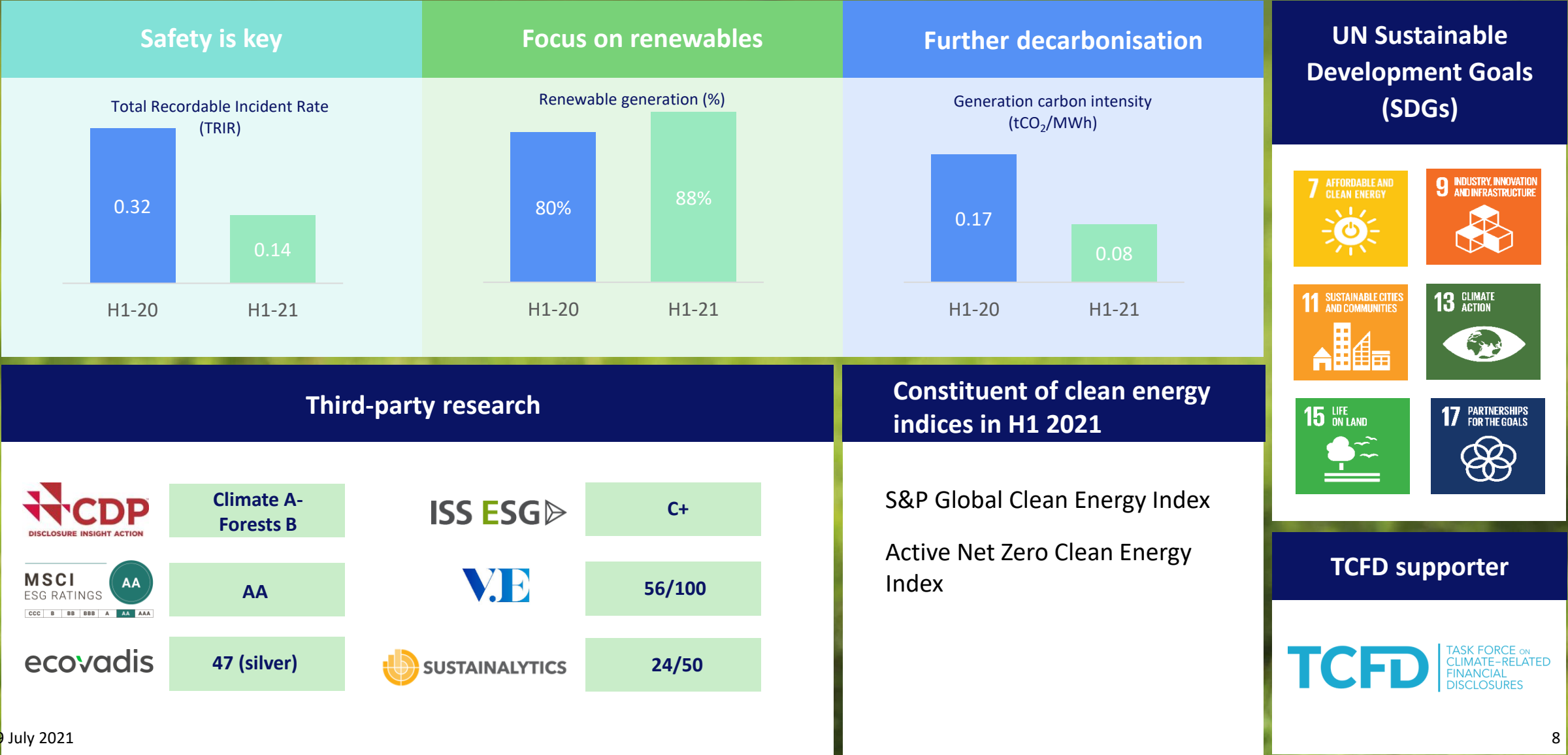
Customers – sale of renewable electricity

Pioneering options for negative emissions by 2030



Sustainability

Long-term commitment to safety and sustainability underpins strong and improving ESG credentials



Generation

UK's largest source of renewable power by output

End of commercial coal generation and sale of gas assets

Biomass operational performance

- CfD – 97% availability
- ROC – lower achieved power prices reflecting historical hedging and buy-backs associated with reprofiled generation to H2-21
- Higher cost of biomass reflecting historical FX hedging

Strong system support performance

Strong contracted forward power positions

- Power 29.3TWh contracted at £52.1/MWh (2021-2023)

Major planned outage on CfD unit – summer 2021

- Includes turbine upgrade which will lower maintainance cost, improve efficiency and reduce cost of biomass generation

Ongoing trials of lower cost biomass fuels

- Up to 35% agricultural residues on one biomass unit in test runs

Adjusted EBITDA⁽¹⁾
£185m
(H1-20: £214m)

System support⁽²⁾
£70m
(H1-20: £66m)

% of UK
renewables
12%⁽³⁾
(Q2 2019 to Q1
2020: 12%)

Biomass
availability⁽⁴⁾
88%
(H1-20: 87%)

Biomass
generation
7.6TWh
(H1-20: 7.4TWh)

Hydro
generation⁽⁵⁾
0.3TWh
(H1-20: 0.3TWh)

Gas
generation
0.6TWh
(H1-20: 1.3TWh)

Coal
generation
0.4TWh
(H1-20: 1.0TWh)

CO₂ intensity
0.1t/MWh
(H1-20: 0.2t/MWh)

1) Includes £21m of discontinued operations – gas (H1-20: £19m)
2) Balancing mechanism, Ancillary Services and portfolio optimisation
3) Q2 2020 to Q1 2021
4) Availability of each generation asset weighted by Adjusted EBITDA contribution
5) Gross output from pumped storage and hydro schemes

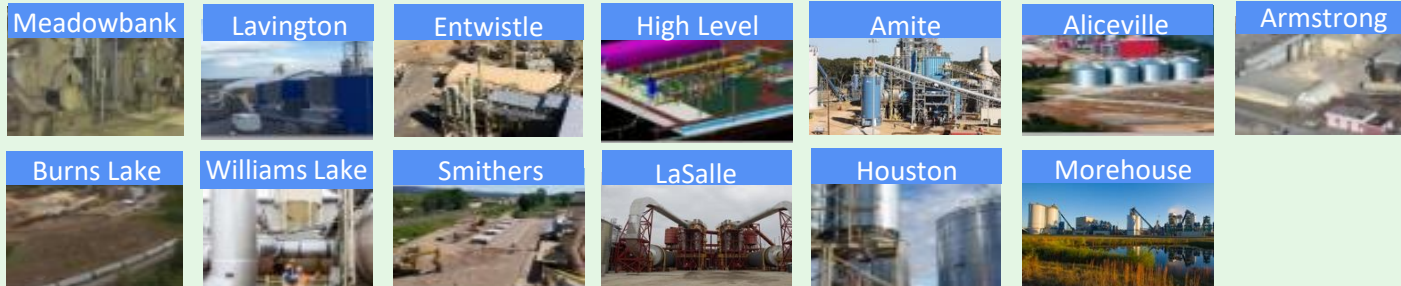
Pellet Production – a Major Producer and Supplier of Biomass to Customers Globally

An enlarged and geographically diversified supply chain

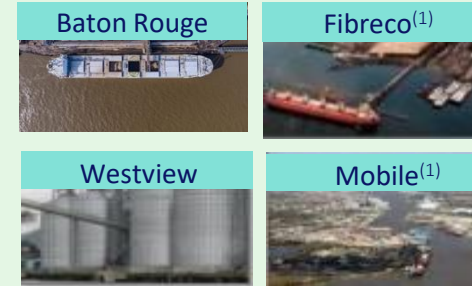
4.9Mt capacity (from 2022) – 17 pellet plants across 3 major fibre baskets and 4 deep water ports



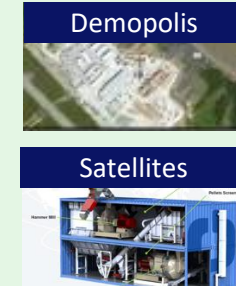
Operational plants



Ports



Developments



Pellet Production – a Major Producer and Supplier of Biomass to Customers Globally

Global reach with long-term supply contracts into Asia, Europe and UK

US\$4.3bn of contracted sales to customers

Significant contracted volumes beyond 2027

High-quality Japanese, Korean and European customers

Drax customers

drax



EPH

**uni
per**



 **TOYOTA TSUSHO CORPORATION**

UBE / **UBE INDUSTRIES, LTD.**

 **Mitsubishi Corporation**

中广核  **CGN**

 **Sumitomo Corporation**

 **GS Global**

Pinnacle Integration

Prioritise safe, efficient and sustainable operation of the enlarged supply chain

Continuity of production

- Focus on best practice – H&S, operational efficiency and sustainability

Continuity of management

- Operations consolidated under single management structure

Establish future operating model in 2021, implement in 2022

- Joint approach to project development and cost reduction initiatives
- Consolidate expertise in low-cost production and third-party supply management

Working with stakeholders

- Employees, indigenous communities, JV partners, eNGOs and governments

Biomass sustainability

- Drax sustainability policy applied to enlarged Group
- Invest in, adapt and develop sourcing practices across Group

Opportunities for optimisation of enlarged portfolio



Pellet Production – Operational Review of H1-21

Increased production capacity and cost reduction accelerated by acquisition of Pinnacle

Strong operational and financial performance⁽¹⁾

- 70% increase in production
- 8% reduction in \$/tonne production cost
- 60% increase in Adjusted EBITDA

Continued cost reduction and increased self-supply

- Pinnacle, Morehouse expansion and ongoing cost savings

Current developments in US Southeast (2021/22)

- LaSalle expansion, Demopolis and satellite plants

Adjusted EBITDA
£40m
(H1-20: £25m)

Pellet production
1.3Mt
(H1-20: 0.8Mt)

Production cost
\$141/t⁽²⁾
(H1-20: \$154/t)

Sales to Drax
0.9Mt⁽¹⁾
(H1-20: 0.75Mt)

Sales to 3rd parties
0.4Mt⁽¹⁾
(H1-20: n/a)

1) Inclusive of Pinnacle from 13 April 2021

2) Cost of production in Pellet Production – raw fibre, processing into a wood pellet, delivery to Drax port facilities in US and Canada and loading to vessel for shipment to UK and overheads – Free on Board (FOB). Cost of ocean freight, UK port and rail cost reflected in Generation business accounts in addition to price paid to Pellet Production for the wood pellet

Customers

Delivering decarbonisation services to a high-quality I&C customer base, managing impact of Covid-19 on SME portfolio
Expect to return to profit at Adjusted EBITDA level in 2021

Drax Customers – strong growth prospects in I&C portfolio

- Renewable electricity is in high demand, premium emerging
- >25% increase in forward power sales vs. H1-21
- EV services and on-site asset optimisation services sold to key accounts
- Growing market for carbon offsets, supportive of future value of negative emissions

Targeting high-quality, lower risk sectors with ESG focus

H1-21 – performed well, growth in forward contracted sales

Well positioned to support key sectors manage their energy objectives and emissions



Transport



Agriculture



Manufacturing



Utilities



Public Sector



Education

SME portfolio – focus on value over market share

- Continue to evaluate options to maximise value
- H1-21 – continued impact of Covid-19 – lower demand and increased bad debt provisions
- Stringent credit requirements since start of Covid-19 feeding through into improved portfolio quality

Financial Review

Financial Summary

Strong financial performance

**Adjusted
EBITDA^(1/2)**

£186m

(H1-20: £179m)

**Interim Dividend
7.5p/share (£30m)**
(H1-20: 6.8p/share, £27m)

**Expected Full Year Dividend
18.8p/share (£75m)**
(2020: 17.1p/share, £68m)

**Total Cash and
Committed Facilities
June 2021**

£666m

(H1-20: £694m)

**Adjusted
Basic Earnings Per Share^(1/2)**

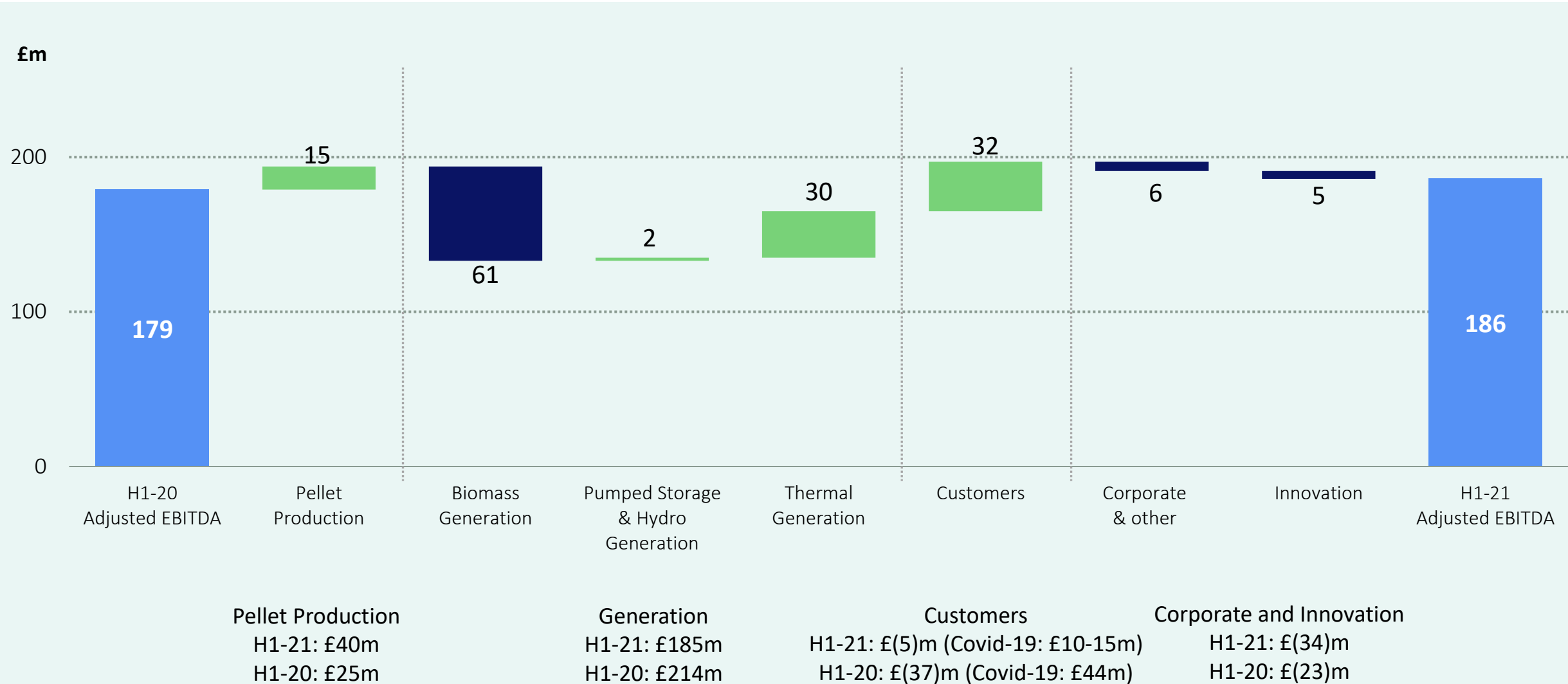
14.6p/share^(1/2)

(H1-20: 10.8p/share)

**Continue to expect
around 2x Net Debt
to Adjusted EBITDA
by end of 2022**

- 1) Financial performance measures prefixed with “Adjusted” are stated after adjusting for material one-off exceptional items that, by their nature, do not reflect the trading performance of the Group (write-down revaluation of deferred tax asset balances reflecting future increases in UK CT rates, acquisition costs, gain on sale of gas generation assets, restructuring costs, debt restructuring costs and asset obsolescence charges), and certain remeasurements on derivative contracts. Adjusted measures exclude amounts attributable to non-controlling interests
- 2) Includes continued and discontinued operations

Adjusted EBITDA Bridge H1-20 to H1-21



Continued Focus on Biomass Cost Reduction

Existing expansion plans for lower cost capacity, operational efficiencies and addition of Pinnacle drive continued reductions

Targeting run-rate savings of \$35/t (\$64m) of savings on 1.8mt self-supply by 2022 versus 2018 base

- \$36m of savings delivered, on track for \$64m savings by end of 2022
- Low-cost fibre, logistics and capacity expansions
- Leverage Pinnacle expertise and expand savings projects across expanded portfolio

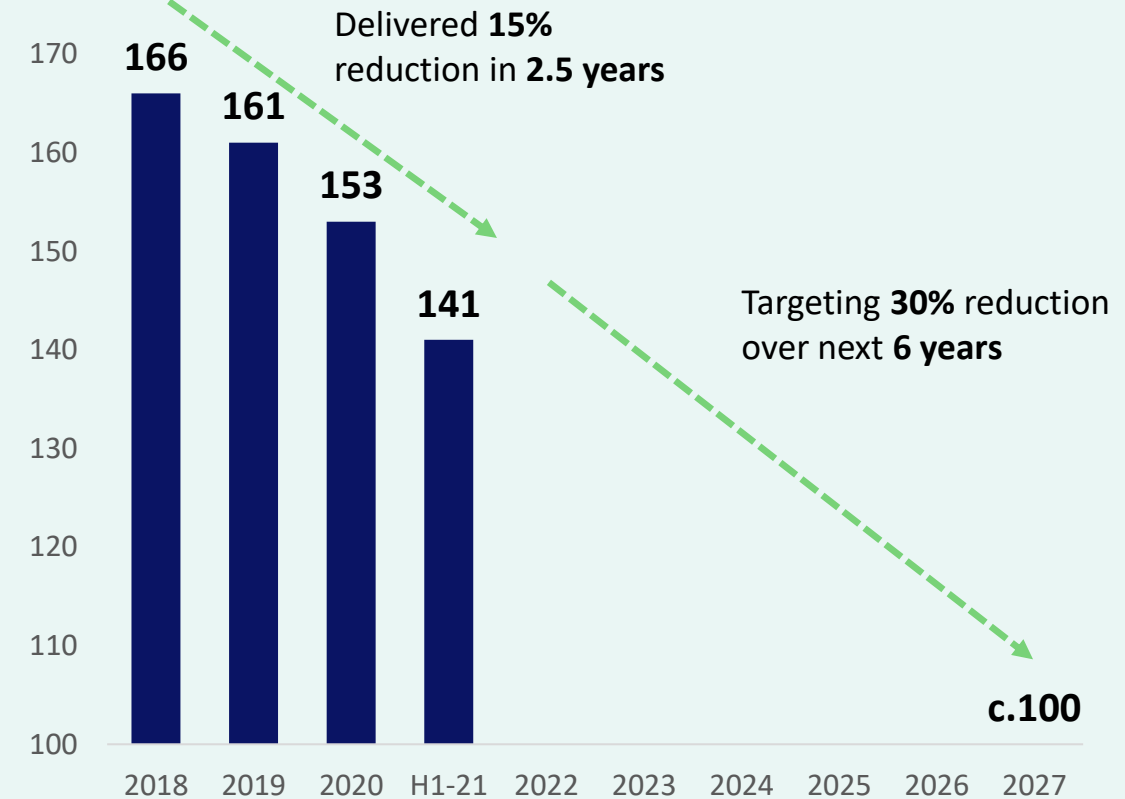
Capacity expansion and committed pipeline to 2022

- LaSalle expansion (expected Q3-21)
- Demopolis site (expected Q3-21)
- Satellite plants (expected from Q4-21)
- Exploring further expansion opportunities across combined portfolio

Progress with long-term opportunities for cost savings and growth

- Trials of lower cost biomass materials
- Up to 35% agricultural residues on one biomass unit in test runs
- Pipeline of emerging projects

15% reduction in FOB \$/tonne production cost in 2.5 years



Capital Investment

Investment to drive operational efficiency, strategic initiatives and growth

2021 estimates	Key areas	Investment
Maintenance	Maintain operational performance	£70-80m
Enhancement	Efficiency and operational improvements	£20m
Strategic	Biomass self-supply	£60-70m
	Pinnacle	£40m
Other		£20m
Total		£210-230m

H1-21: £71m

Increase in full year investment includes

- Satellite plants
- Finalisation of LaSalle commissioning
- Projects acquired as part of Pinnacle acquisition, including Demopolis site



Balance Sheet

Long-term structures in place to support growth

Facilities in place to support growth and decarbonisation

- Infrastructure facilities extend maturity profile to 2030
- ESG facilities with margin linked to carbon emissions

Group cost of debt now <3.5%

- Replaced Pinnacle debt with new lower cost ESG facility

Strong credit profile

- S&P/Fitch (BB+ stable)
- DBRS investment grade rating (BBB stable)

Pinnacle acquisition

- Funded from cash and existing agreements
- Refinanced Pinnacle facilities July 2021

Further opportunities for balance sheet efficiency and reduced cost

Continue to expect around 2x net debt to Adjusted EBITDA by end of 2022

£666m cash and committed facilities

Maturity profile to 2030

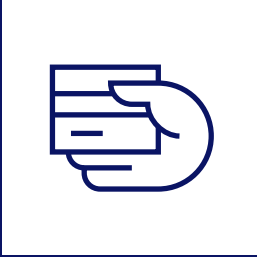
Instrument	Maturity	Description
Infrastructure facilities		
2019	2024-2029	£375m
2020	2024-2030	c.£213m ⁽¹⁾
Bonds	2025	\$500m
	2025	€250m
ESG Revolving Credit Facility	2025	£300m (undrawn for cash)
ESG term-loan⁽²⁾	2024	C\$300m
Index-linked term-loan	2022	£35m

1) c.£213m – €25m in 2024 (£23m), €70m (£63m) in 2026, £45m in 2027, £53m in 2028 and €31.5m (£29m) in 2030, of which £130m was undrawn at December 2020, subsequently drawn February 2021²⁰

2) Refinanced July 2021, reduced from C\$435m at 30 June

Clear Capital Allocation Policy

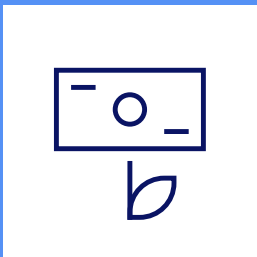
Implemented in 2017, designed to support strategy



1. Maintain credit rating



2. Invest in core business



3. Sustainable and growing dividend



4. Return surplus capital beyond investment requirements

Strategy Update

Positioning Drax for Growth

Growth opportunities from biomass supply, negative emissions and system support services

2012

UK's largest coal fired power station

- Single site merchant power generator

2021

>90% reduction in generation emissions since 2012

- Now substantially a fully renewable energy company

UK's largest source of renewable power by output – multi-site, multi-asset

World's leading sustainable biomass generation and supply company

Long-term low-carbon growth opportunities

- Biomass supply – Asia, Europe and North America
- Demand for negative emissions using BECCS – UK and globally
- Demand for renewable power – generation and supply
- Demand for system support – Cruachan II

Biomass Has A Critical Role to Play in the Fight Against Climate Change

Drax is a world leader in sustainable biomass

Sustainable biomass and BECCS internationally recognised as critical to decarbonisation

UK – bioenergy could double to meet 15% of UK's primary energy demand by 2050

Europe – bioenergy to grow by 70% between 2030 and 2050 to deliver negative emissions and BECCS a part of every EU scenario that reaches net zero by 2050

Japan – biomass power capacity to double from 4GW to 8GW by 2030

International policy developments support sustainable biomass sourcing

UK – Energy White Paper and 10-point plan reiterated commitments to sustainable biomass and BECCS

Europe – biomass support to continue through REDIII with emphasis on BECCS

Japan – new energy plan expected to include higher bioenergy use and ambitious new climate targets

Clear international accounting policy under UN Framework Convention on Climate Change – reaffirmed in 2019

Drax is a world leader in the use of sustainable biomass

Uses of low-grade residuals, sawdust, thinnings, branches, tops and other low-grade wood, which have limited alternative markets and is often considered waste

Independent Advisory Board and external audit and certification of all biomass

Healthy managed forests support biodiversity, prevent disease and wild fires

US Southeast – carbon stocks increased >90% since 1950

Canada – primarily sourced from highly regulated Crown land based on annual allowable cut

“Without biomass, we’re not going to make it. We need biomass in the mix, but we need the right biomass in the mix”

Frans Timmermans – EC Commissioner for Green Deal (May 2021)

“Biomass is unique amongst renewable technologies in the wide array of applications in which it can be used as a substitute for fossil-fuel based products and activities, from power generation to hydrogen production and even new forms of plastics. Along with its ability to deliver negative emissions, this makes biomass one of our most valuable tools for reaching net zero emissions.”

UK Energy White Paper (December 2020)

All woody biomass supplies and suppliers verified and audited against external independent standards

Global Need for Biomass and BECCS

Potential for significant global demand for sustainable biomass to support negative emission from BECCS

Research by Coalition for Negative Emissions shows potential for 2 to 4bn tonnes of negative emissions from BECCS by 2030

Coalition for Negative Emissions Report

Current pipeline of negative emissions projects insufficient

- Scale of action required by 2050 will be profound
- BECCS, DACS and natural climate solutions have a role

Total sustainable global market potential for BECCS

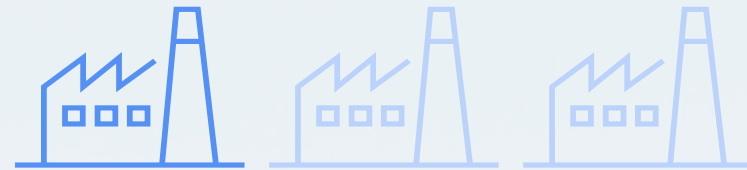
- 2 to 4bn tonnes of negative emissions by 2030

Effective cost of negative emissions using BECCS⁽¹⁾

- Current - £225 to £90/tonne
- At scale - £145 to £45/tonne

2-4bn tonnes = 500-1,000 4Mt BECCS plants

or 1 in 3 of today's global at-scale coal plants converted



Global BECCS Opportunities

Drax is exploring opportunities for new-build BECCS and conversions, and technologies globally



Bechtel

Working with Drax to identify opportunities for new international BECCS plants, including North America and Europe



Phoenix BioPower

Working with Drax to identify turbine technologies which can reduce cost of new-build BECCS



C-Capture

Developer of organic solvent technology for CCS

Trials at Drax Power Station

Potential for significant cost reduction when scaled

Drax is an equity shareholder

Development of BECCS at Drax Power Station and CCS Infrastructure in UK

BECCS at Drax Power Station – two biomass units with BECCS by 2030

- Planning application process commenced
- Mitsubishi Heavy Industries selected as solvent technology partner
- Commence FEED study late 2021 subject to indication of support from UK Government, Final Investment Decision – 2023/24

Participant in East Coast CCS Cluster – UK's largest CCS cluster

Competition to determine sequencing of UK CCS clusters and projects

Track 1 aims to identify at least two regional CCS clusters for delivery in the mid-2020s

- Applications submitted July 2021
- Eligible clusters selected August 2021, with final selection from October 2021

Track 2 aims to identify at least two regional CCS clusters for delivery by 2030

- Process will be announced in October, alongside the Track-1 results
- Conclude negotiations with projects within the Track-2 clusters in time for FIDs from 2024, enabling operation from 2027

Business models to support individual projects

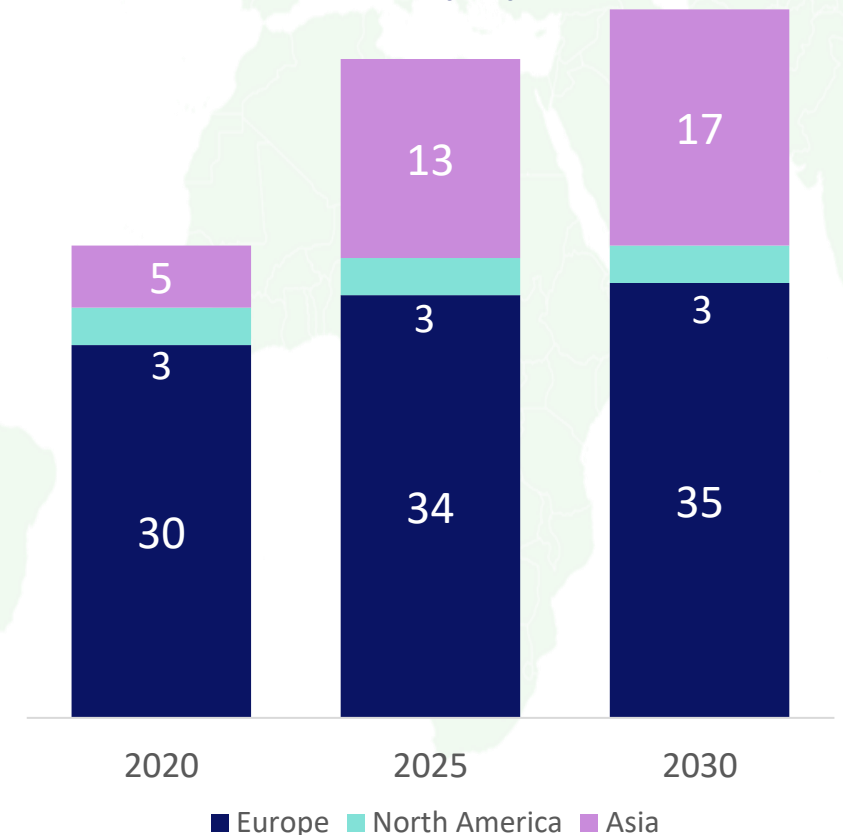
Drax Biomass Strategies Informed by Global Role and Market for Biomass

Three complementary models underpinned by ambition to develop a 5Mt self-supply chain at £50/MWh⁽¹⁾

All options underpinned by the sale of biomass at market price to realise best value from supply chain

Third-party sales	- Growing and under-supplied global market - Optimisation and trading of biomass to achieve best value
BECCS	- Drax Power Station – subject to right investment framework from UK Government - Other global opportunities
Power generation	- Flexible operation targeted on periods of higher demand - System support services - Opportunity for capacity payments - Operational efficiencies and lower operating cost

Global growth opportunities for sustainable biomass (Mt)



Source: Hawkins Wright – The Outlook for Wood Pellets (Q2 2021) / Drax

Outlook

Financial and operations

- Flexible, renewable generation and system support
- Safe and sustainable operations, including delivery of planned CfD outage
- Increased biomass production and reduced cost
- Sustainable and growing dividend

Development of biomass strategy

- Emerging clarity on regional UK CCS clusters
- Continued focus on biomass supply chain and cost reduction targets
- Growth of supply of biomass to third parties
- Evaluation of international BECCS opportunities
- Expansion of biomass fuel envelope to include lower-cost sources of sustainable biomass

CMD – November 2021



2021 Half Year Results

29 July 2021

Appendices

Group Adjusted EBITDA

Group Income Statement – Continuing Operations

**Group Income Statement
– Adjusted Results – Continuing and Discontinued Operations**

Consolidated Adjusted EBITDA

Generation – Adjusted EBITDA

Pellet Production – Adjusted EBITDA

Customers – Adjusted EBITDA

Group Cash Flow Statement

Group Net Debt Bridge

Contracted Power Sales

UK Energy White Paper

**Europe: Fit for 55 Package and Third Renewable Energy
Directive (REDIII)**

Sustainable Biomass Sourcing and Carbon Life Cycle

Sources of Biomass Supply

Forward Commodity Prices

Forward Carbon Prices

Forward Spreads

H1 2021 Group Adjusted EBITDA

High-quality, enduring earnings from a multi-technology portfolio and integrated value chain

Business unit		Assets	Capacity	EBITDA (£m)	% of EBITDA
Pellet Production		13 pellet plants in Canada and US, with additional sites in development	4.9Mt	40	22%
		Access to 4 deep water ports (with control of 2)	>4.9Mt		
Generation	Biomass ⁽¹⁾		2.6GW	108	68%
	Hydro	Cruachan Pumped Storage Lanark and Galloway hydro schemes Daldowie – energy from waste	0.5GW	34	20%
	Gas	Discontinued gas generation assets	2.0GW	21	11%
	Coal ⁽¹⁾		1.3GW	22	11%
Customers		I&C SME		(5)	(3)%
Central Costs & Other	Innovation, capital projects and core services			(35)	(19)%
Total				186	100%

Group Income Statement – Continuing Operations

In £m	HY 2021			HY 2020		
	Adjusted	Exceptional	Total	Adjusted	Exceptional	Total
Revenue	2,177	(3)	2,174	2,103	14	2,117
Cost of sales	(1,807)	23	(1,784)	(1,736)	80	(1,656)
Gross profit	370	20	390	367	94	461
Operating and administrative expenses	(197)	-	(197)	(181)	-	(181)
Impairment losses on trade receivables	(8)	-	(8)	(26)	-	(26)
Adjusted EBITDA from continuing operations	165	-	-	160	-	-
Depreciation	(72)	-	(72)	(68)	-	(68)
Amortisation	(17)	-	(17)	(18)	-	(18)
Asset obsolescence charges	-	-	-	-	(224)	(224)
Gain on disposal of fixed assets	-	-	-	(1)	-	(1)
Acquisition and restructuring costs	-	(12)	(12)	-	-	-
Operating profit / (loss)	76	8	84	73	(130)	(57)
Foreign exchange gains	2	-	2	4	-	4
Net interest charge	(34)	-	(34)	(32)	-	(32)
Profit / (loss) before tax	44	8	52	45	(130)	(85)
Tax	(5)	(53)	(58)	(10)	20	10
Net result from continuing operations	39	(45)	(6)	35	(110)	(75)

Group Income Statement – Adjusted Results – Continuing and Discontinued Operations

In £m	HY 2021			HY 2020		
	Continuing	Discontinued	Total	Continuing	Discontinued	Total
Revenue	2,177	52	2,229	2,103	102	2,205
Cost of sales	(1,807)	(32)	(1,839)	(1,736)	(68)	(1,804)
Gross profit	370	20	390	367	34	401
Operating expenses	(197)	1	(196)	(181)	(15)	(196)
Impairment losses on trade receivables	(8)	-	(8)	(26)	-	(26)
Adjusted EBITDA	165	21	186	160	19	179
Depreciation	(72)	-	(72)	(68)	(9)	(77)
Amortisation	(17)	-	(17)	(19)	-	(19)
Gain on disposal of fixed assets	-	-	-	1	-	1
Operating profit	76	21	97	73	10	83
Foreign exchange gains	2	-	2	4	-	4
Net interest charge	(34)	-	(34)	(32)	-	(32)
Profit before tax	44	21	65	45	10	56
Tax	(5)	(2)	(7)	(10)	(2)	(13)
Profit for the period	39	19	58	35	8	43
Basic earnings per share (pence)	9.9	4.7	14.6	8.8	2.0	10.8

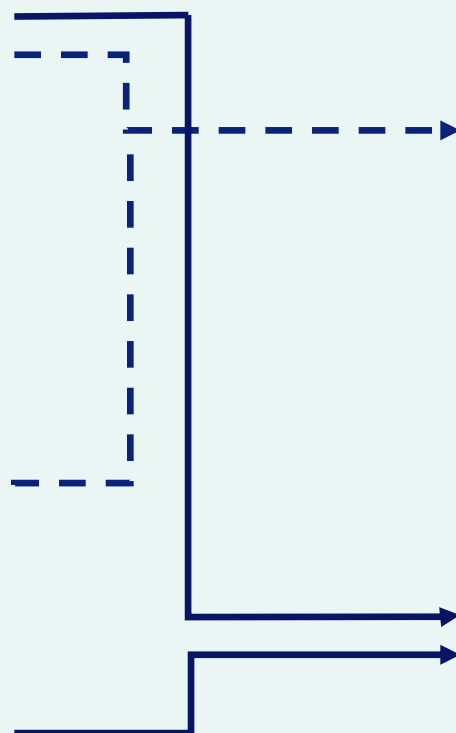
Consolidated Adjusted EBITDA from Continuing and Discontinued Operations

HY 2021 £m	Power Generation	Pellet Production	Customers	Adjustments ⁽²⁾	Consolidated
Segment Adjusted EBITDA	185 ⁽¹⁾	40	(5)	(3)	217
Central Costs					(22)
Innovation and capital projects					(9)
Consolidated Adjusted EBITDA					186

HY 2020 £m	Power Generation	Pellet Production	Customers	Adjustments	Consolidated
Segment Adjusted EBITDA	214 ⁽¹⁾	25	(37)	-	202
Central Costs					(19)
Innovation and capital projects					(4)
Consolidated Adjusted EBITDA					179

Generation – Adjusted EBITDA

In £m	HY 2021	HY 2020
Revenue		
Power sales	1,252	1,107
System support and optimisation	66	85
ROC sales	191	328
CfD income	188	157
Capacity Market income	25	34
Gas sales to Customers business	35	33
Fuel sales	10	10
Other income	5	3
	1,772	1,757
Cost of sales		
Generation fuel costs	(720)	(669)
Cost of system support and optimisation	4	(19)
Fuel sold	(2)	(5)
ROC support	272	269
Carbon tax	(11)	(25)
Carbon certificates	(16)	(32)
ROCs sold or utilised	(191)	(328)
Cost of power purchases	(788)	(593)
Grid charges	(44)	(37)
	(1,499)	(1,439)
Gross profit	273	318
Operating costs	(88)	(104)
Total Adjusted EBITDA⁽¹⁾	185	214



System support and optimisation

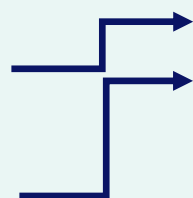
£m	HY 2021	HY 2020
System support and optimisation		
Balancing mechanism, Ancillary Services and portfolio optimisation	66	85
Margin from system support and optimisation	4	(19)

Average achieved power price

	HY-21	HY-20
Gross power sales (£m)	1,252	1,107
Cost of power purchases (£m)	(788)	(593)
Net power sales (£m)	455	514
Net power sales (TWh)	8.9	10.0
Average achieved price (£/MWh)	52.1	51.4

Pellet Production – Adjusted EBITDA

In £m	HY 2021	HY 2020
Revenues	185	118
Cost of sales	(107)	(65)
Gross profit	78	53
Operating costs	(38)	(28)
Adjusted EBITDA	40	25



Drax pellet production cost

USD\$	HY 2021	H1-20
Cost of sales (\$m)	142	82
Operating costs (\$m)	52	36
Total cost (\$m)	194	118
Other adjustments (\$m)	(15)	(2)
Underlying cost of Drax pellets (\$m)	179	116
Drax pellet production (Mt)	1.3	0.75
Cost per tonne (\$/t)	141	154

Revenues

- FOB price for biomass at Drax US and Canadian port
- Generation business incurs cost of ocean freight, UK port and rail costs

Customers – Adjusted EBITDA

In £m	HY 2021	HY 2020
Revenue	1,077	1,032
Cost of sales		
Cost of power and gas purchases	(442)	(434)
Grid charges	(232)	(229)
Other costs	(359)	(339)
	(1,033)	(1,002)
Gross profit	44	30
Operating costs	(41)	(41)
Bad debt charge	(8)	(26)
Adjusted EBITDA	(5)	(37)

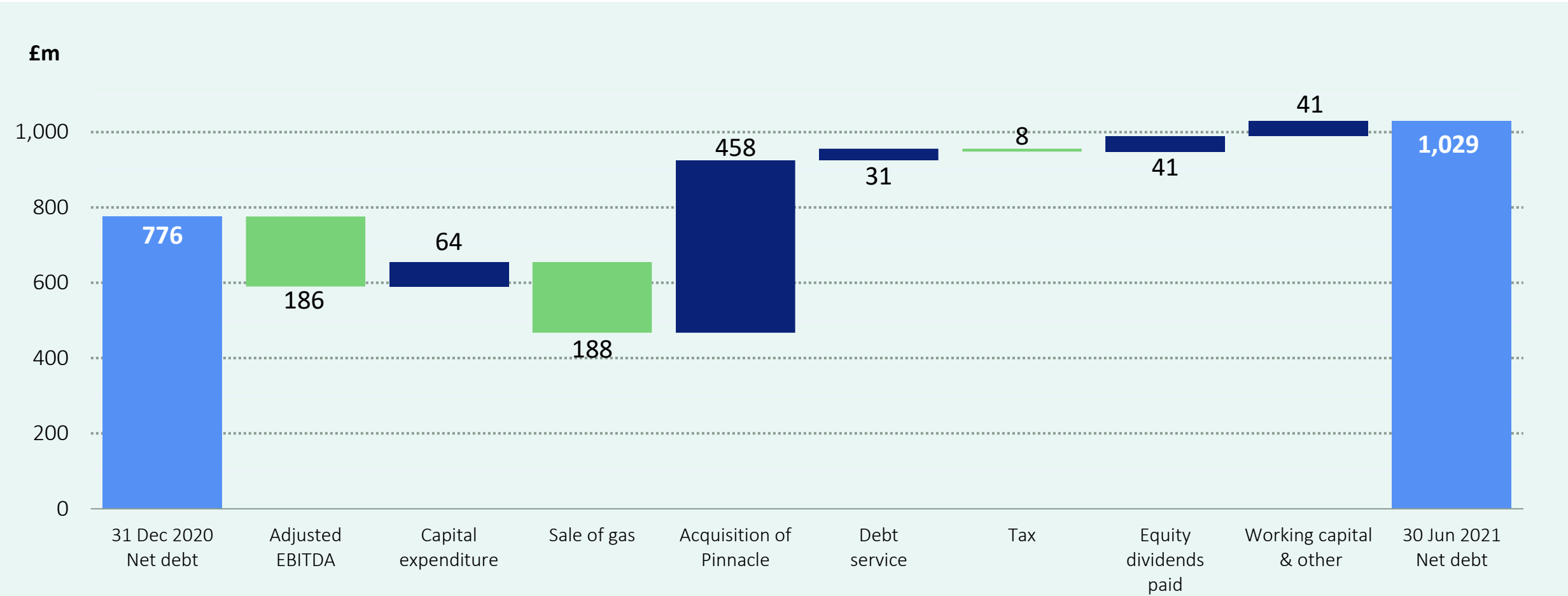
Power sales
7.4TWh
 (H1-20: 7.3TWh)

Gas sales
1.6TWh
 (H1-20: 1.5TWh)

Group Cash Flow Statement – Continuing and Discontinued Operations

In £m	HY 2021	HY 2020
Adjusted EBITDA ⁽¹⁾	186	179
Working capital and other	(48)	47
Cash generated from operations	138	226
Debt service	(31)	(27)
Tax ⁽²⁾	8	(31)
Net cash from operating activities	115	168
Capital investment	(64)	(59)
Disposal of subsidiary	188	-
Acquisition of subsidiaries	(204)	-
Net refinancing	124	-
Equity dividends paid	(41)	(38)
Other	(2)	7
Increase in cash and cash equivalents	116	71
Cash and cash equivalents at the beginning of the period	290	404
Net cash flow	116	78
Cash and cash equivalents at the end of the period	406	482

Group Net Debt Bridge



Contracted Power Sales

As at 25 July 2021	2021	2022	2023
Fixed price power sales (TWh)	15.9	9.1	4.3
- CfD	3.8	0.6	-
- ROC	10.8	8.4	4.0
- Other	1.3	0.1	0.3
Average achieved price (£/MWh)	51.7	52.4	52.7

UK Energy White Paper

Description of biomass and BECCS

By 2022, we will establish the role which BECCS can play in reducing carbon emissions across the economy and, as part of a wider biomass strategy, set out how the technology could be deployed. **Biomass is unique amongst renewable technologies in the wide array of applications in which it can be used as a substitute for fossil-fuel based products and activities, from power generation to hydrogen production and even new forms of plastics.** Along with its ability to deliver negative emissions, this makes biomass **one of our most valuable tools for reaching net zero emissions.**

In the government's response to Climate Change Committee's (CCC) latest annual progress report to Parliament, we announced that **we will publish a new Biomass Strategy in 2022.** As part of this strategy, we will set out the results of a review of the amount of sustainable biomass available to the UK, and how this resource could be best utilised across the economy to help achieve our net zero greenhouse gas emissions target by 2050.

Our review will assess the UK's current biomass sustainability standards, which are already some of the world's most stringent, to see where and how we can improve them even further. Our review will also consider the role biomass can play in delivering our wider environmental targets, including on air quality. We will shortly issue a call for evidence: 'Biomass for net zero', to inform the development of our strategy. **We will issue a preliminary position paper by summer 2021,** once the evidence has been reviewed. **Critical to our consideration will be the role of BECCS in our energy system. BECCS plants could deliver negative emissions,** by capturing the carbon released during biomass combustion, gasification and other processes, provided supply chain emissions are sufficiently low. There are a number of applications for BECCS across the economy, including clean hydrogen production, power generation, waste management and in heat for industrial processes and we need to ensure that it is deployed where it has the greatest value in reducing emissions. For example, **current support for electricity generation, which converted from coal to using biomass as a fuel source, expires in 2027. BECCS could provide a long-term future for this capacity**

ENERGY WHITE PAPER

Powering our Net Zero Future

December 2020 | CP 337



Europe: Fit for 55 Package and Third Renewable Energy Directive (REDIII)

Supports increased use of bioenergy as part of European Commission's strong environmental mandate

In July 2021 the European Commission published its “fit for 55” package of proposals

- Package is designed to put in place the policies required for the EU to reduce GHG emissions by at least 55% by 2030. Almost all of the EU's key climate legislation has been revised, including REDIII, the EU ETS, the Energy Taxation Directive, LULUCF and a carbon border adjustment mechanism (CBAM) has been introduced

Biomass and BECCS central to Commission plans

- Commission forecasts 70% increase in biomass to supply BECCS out to 2050, and substitute coal in coal-dependent regions
- Carbon CfD introduced in EU ETS package to support the scaling up of BECCS
- c.€32bn Innovation Fund in EU ETS to support technologies such as BECCS with capital expenditure and operating expenditure
- c.€19bn Euro fund in EU ETS to support lower income Member States move away coal to renewables, such as biomass
- 2023 'negative emission regulation' will support market certainty for BECCS

Renewable Energy Directive III

- REDII takes full account of biomass sustainability and is aligned with EU Taxonomy rules
- Expect REDIII to take several years to develop
- Key initial observations
 - Eligibility criteria – supports development of BECCS and coal conversions
 - From 2026 all existing and new subsidy for forest biomass to be focused on a just transition area (i.e. coal dependent region) or BECCS
 - Development of cascade principle to ensure best use of forestry material and only low-grade materials are used for biomass
- Sustainability criteria – forest biomass may not be sourced from primary forests, wetland or peatland

Sustainable Biomass Sourcing and Carbon Life Cycle

Science-led biomass sourcing policy ensures long-term sustainability and contribution to natural environment

Key principles

- No deforestation
- No carbon debt
- More standing volume in forest area than before

Objectives

- Reduce CO₂ emissions
- Protect the natural environment
- Support people and societies
- Research, outreach and intervention

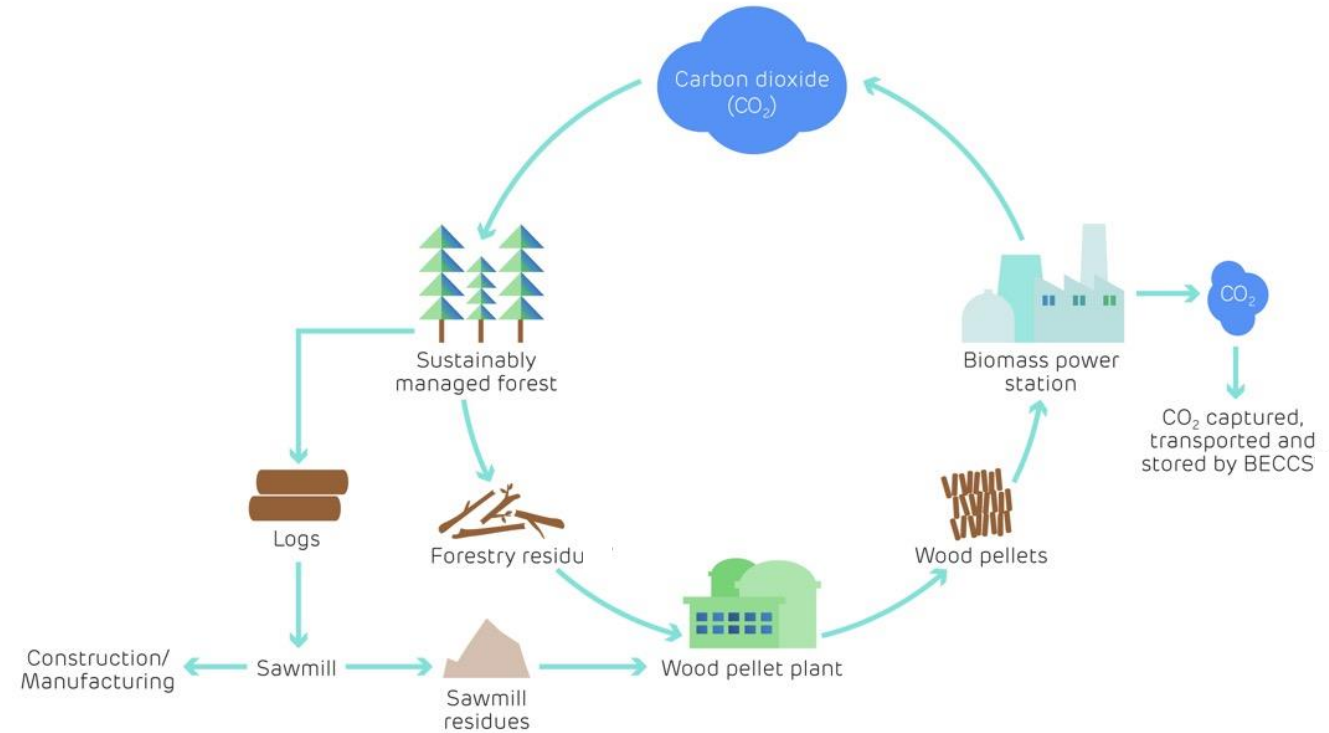
Policy

- Reflects Committee on Climate Change bioenergy review and Forest Research⁽¹⁾ recommendations
- Independent Advisory Board provides assurance

Strong regulatory mechanisms ensure biomass sustainability

- European Union REDII and Taxonomy, continued with REDIII – emphasis on BECCS
- UK ROC and CfD renewable schemes

Biomass generation carbon life cycle



1) Forest Research is Great Britain's principal organisation for forestry and tree related research and is internationally renowned for the provision of evidence and scientific services in support of sustainable forestry
29 July 2021

Sources of Biomass Supply

Drax Group sources of fibre by location – H1-21

	Sawmill residues	Branches, tops and bark	Thinnings	Low grade round wood	Agri. residues	Total
USA	21%	4%	15%	25%	1%	67%
Canada	11%	1%	-	3%	-	15%
Latvia	1%	-	-	6%	-	7%
Estonia	1%	-	-	1%	-	3%
Portugal	-	1%	-	-	-	1%
Brazil	-	-	-	4%	-	4%
Other European	1%	-	-	-	2%	3%
Total	37%	5%	16%	39%	3%	100%

Drax Pellet Production sources of fibre – H1-21

	Sawmill residues	Branches, tops and bark	Thinnings	Low grade round wood	Agri. residues	Total
USA	28%	-	27%	17%	-	72%
Canada	19%	-	-	6%	-	28%
Total	48%	2%	27%	23%	-	100%

Drax Group sources of fibre by location – H1-20

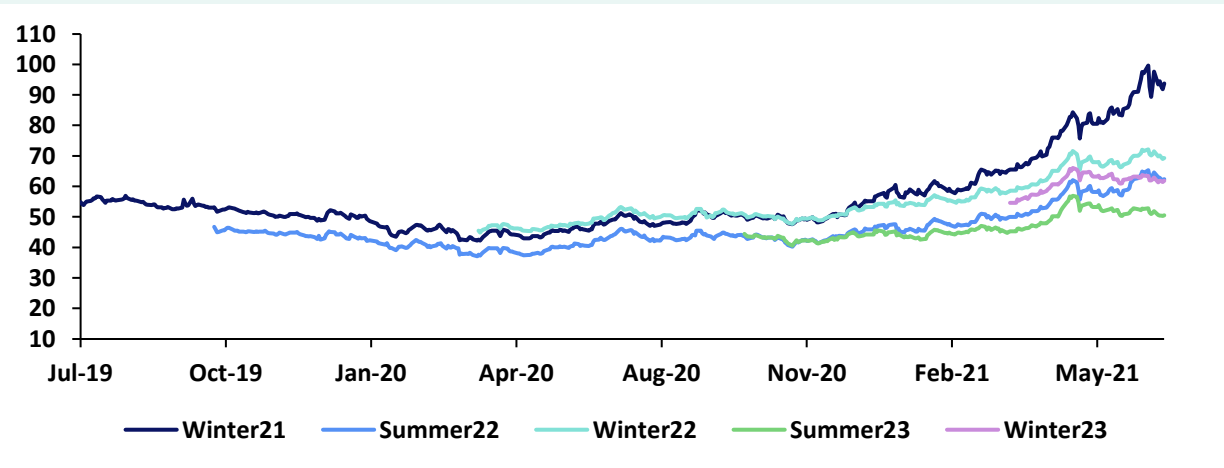
	Sawmill residues	Branches, tops and bark	Thinnings	Low grade round wood	Agri. residues	Total
USA	22%	5%	16%	21%	1%	65%
Canada	17%	1%	-	1%	-	19%
Latvia	3%	-	-	5%	-	8%
Estonia	-	-	-	-	-	-
Portugal	-	-	-	1%	-	1%
Brazil	-	-	-	2%	-	2%
Other European	2%	-	-	-	3%	5%
Total	44%	6%	16%	30%	4%	100%

Drax Pellet Production sources of fibre – H1-20

	Sawmill residues	Branches, tops and bark	Thinnings	Low grade round wood	Agri. residues	Total
USA	20%	-	45%	35%	-	100%
Canada	-	-	-	-	-	-
Total	20%	-	45%	35%	-	100%

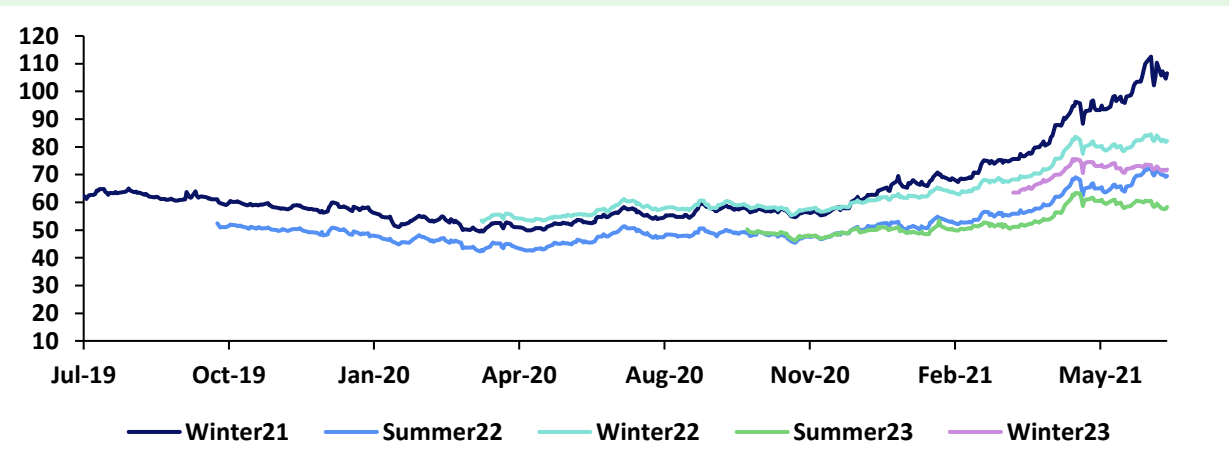
Forward Commodity Prices

Seasonal Baseload Power Price (£/MWh)



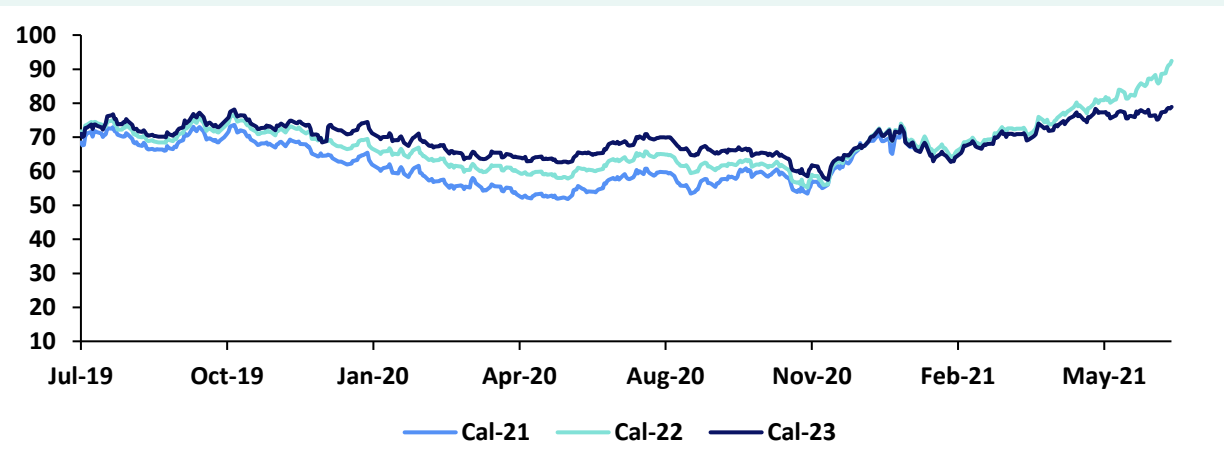
Source: ICE

Peak Power Price (£/MWh)



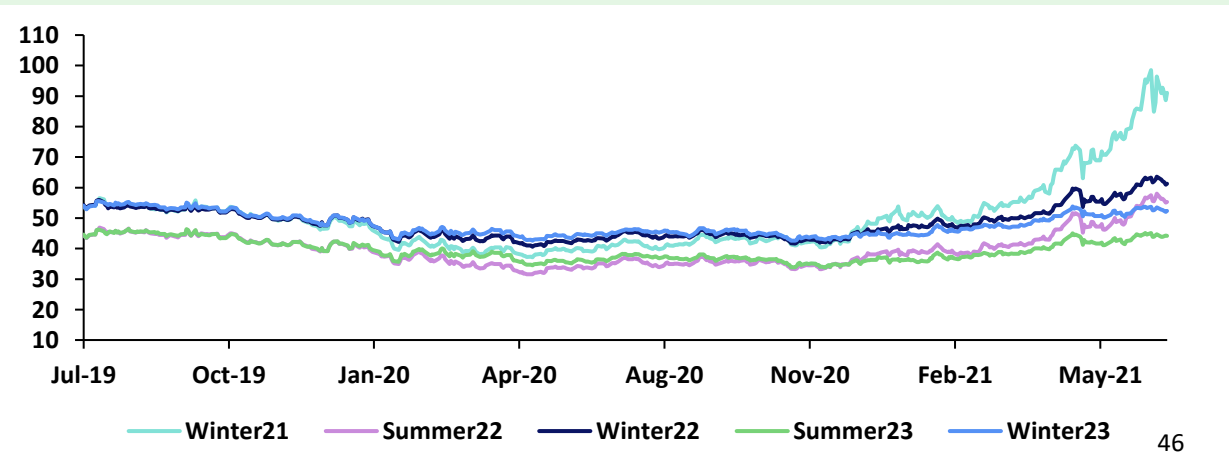
Source: ICE

API2 Coal Price (\$/t)



Source: ICE

NBP Gas Price (p/therm)

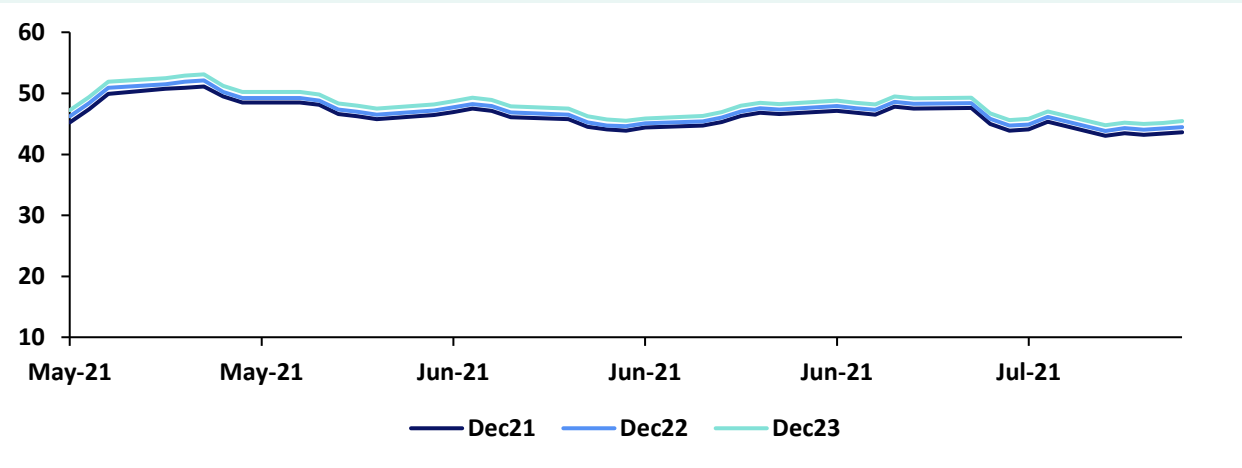


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Source: ICE

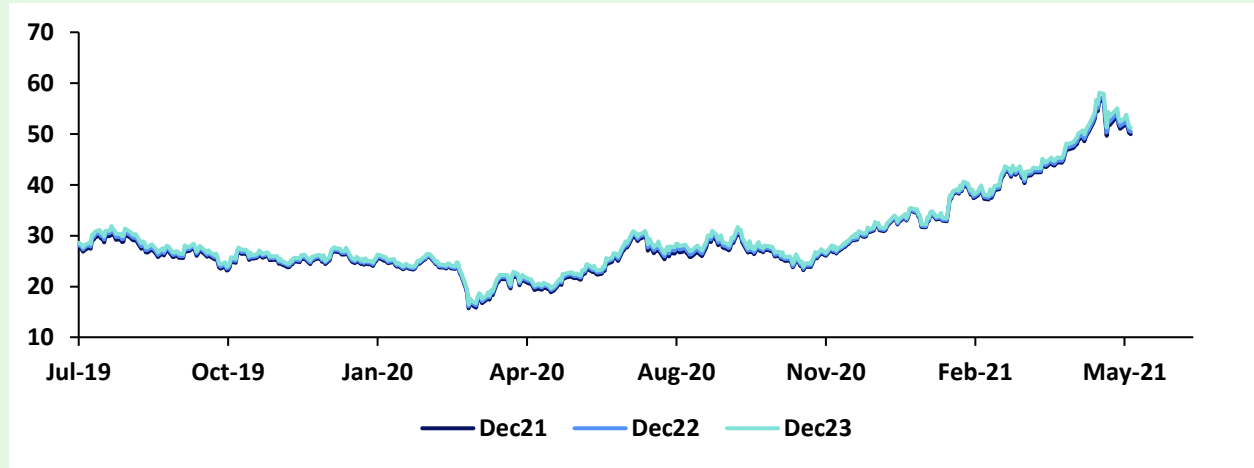
Forward Carbon Prices

UKA Carbon (£/t)



Source: ICE

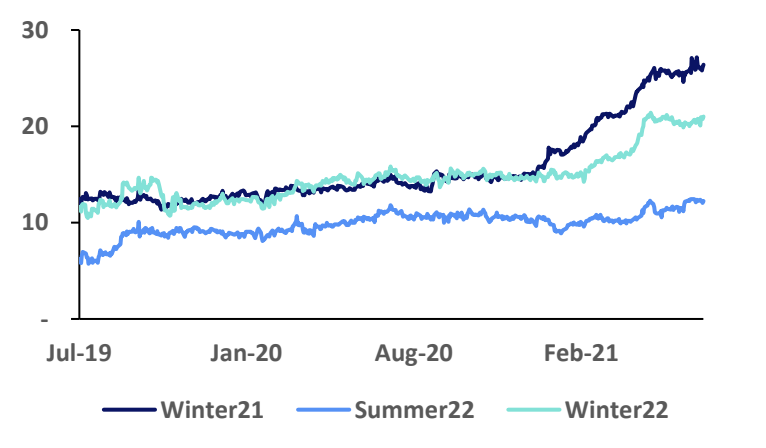
EU ETS Carbon (€/t)



Source: ICE

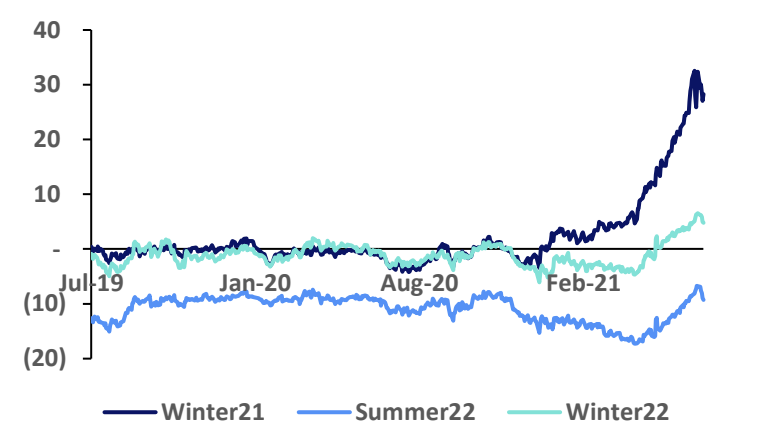
Merchant Forward Spreads

Peak CSS (£/MWh)



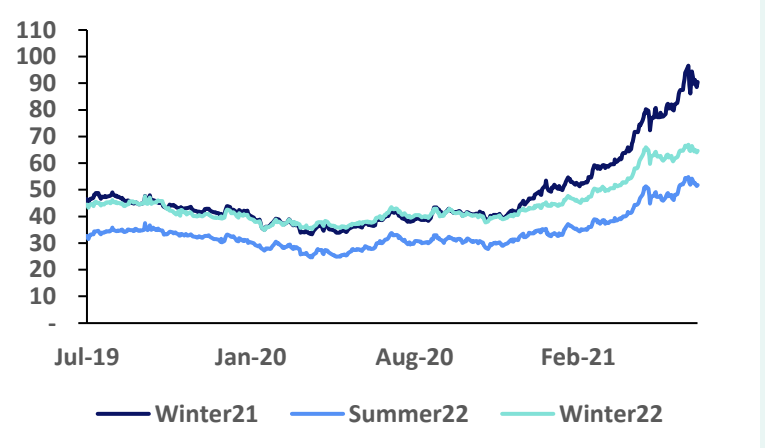
Source: ICE, Reuters and Drax

Peak DGS (£/MWh)



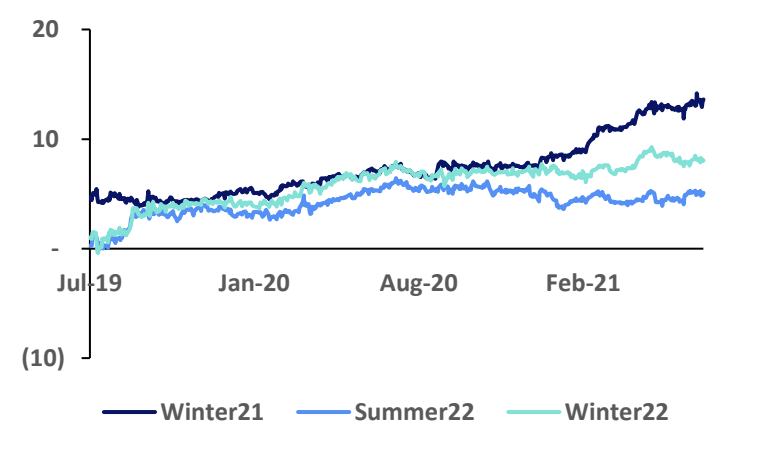
Source: ICE, Reuters and Drax

Peak ROC Bark Spread (£/MWh)



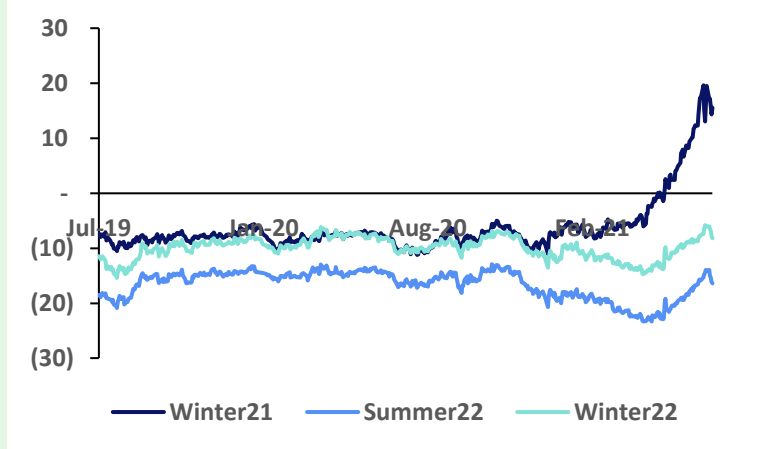
Source: ICE, Reuters and Drax

Baseload CSS (£/MWh)



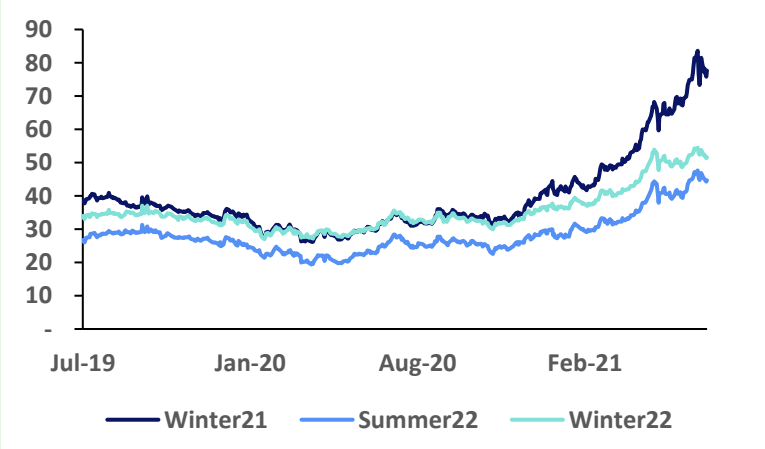
Source: ICE, Reuters and Drax

Baseload DGS (£/MWh)



Source: ICE, Reuters and Drax

Baseload ROC Bark Spread (£/MWh)



Source: ICE, Reuters and Drax



2021 Half Year Results

29 July 2021