Drax Group

Capital Markets Day 2021

1 December 2021

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, investments, beliefs and objectives for the management of future operations of Drax Group plc ("Drax") and its subsidiaries (the "Group"), including in respect of Pinnacle Renewable Energy Inc. ('Pinnacle'), together forming the enlarged business, 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 the Company's current view and beliefs and no assurance can be given that they will prove to be correct. Such events and statements involve significant 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; and/or general economic conditions or conditions affecting the relevant industry, both domestically and internationally, being less favourable than expected; change in the policy of key stakeholders, including governments or partners or failure or delay in securing the required financial, regulatory and political support to progress the development of Drax and its operations. 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.

Presenters

Will Gardiner:
Chief Executive Officer

Andy Skelton:
Chief Financial Officer

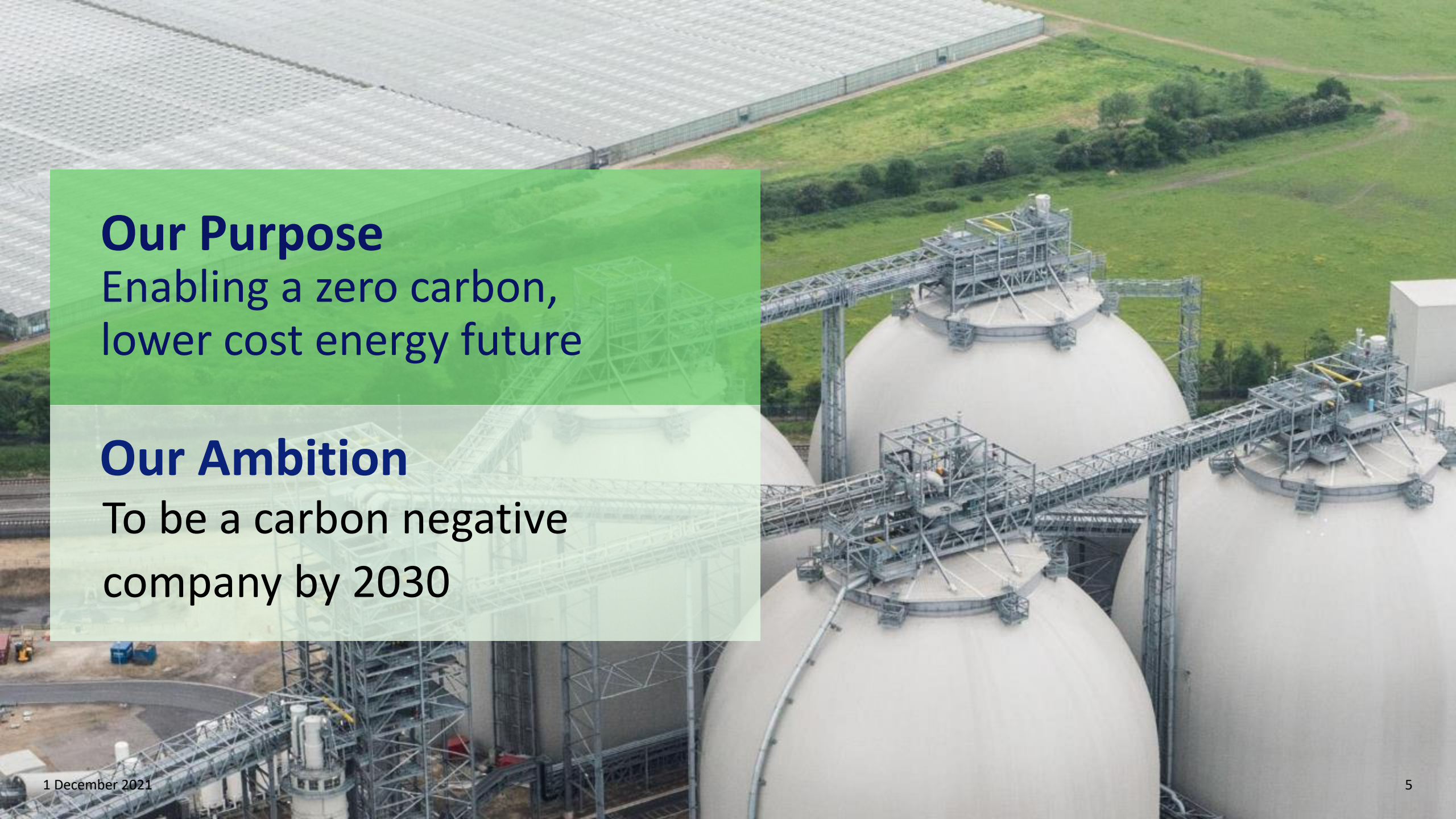
Dr Alan Knight:
Director of Sustainability

Jason Shipstone:
Chief Innovation Officer

Strategy Update

Will Gardiner: CEO

1 December 2021



Our Purpose

Enabling a zero carbon, lower cost energy future

Our Ambition

To be a carbon negative company by 2030

Our Last CMD – November 2019

Drax updated on plans for biomass and role in negative emissions

Expand self-supply to 5Mt by 2027

Reduce the cost of biomass from $166/t[(1)] to $100/t[(1)] (£50/MWh)[(2)] by 2027

Primary objective to establish a long-term model for power generation and develop emerging opportunities for the sale of biomass to third-party users and BECCS at Drax Power Station

1) Free on Board (FOB) – raw fibre, processing into a wood pellet, delivery to Drax port facilities in US and Canada, loading to vessel for shipment and overheads.
2) From c.£75/MWh in 2018 to £50/MWh, assuming a constant FX rate of $1.45/£.

Significant Progress Over Last Two Years

Drax – now a leading UK renewable energy company with global growth opportunities aligned with net zero targets – sustainable biomass supply, negative emissions and dispatchable, renewable generation

Pellet Production

Second largest biomass producer globally

- 4Mt of production capacity (from 1.5Mt)
- 13 fully operational pellet plants plus developments across three major fibre baskets and 4 ports
- Reduced production cost to $141/t(1) (from $166/t(1) in 2018)
- >$4bn of long-term contracted sales to third-parties in Asia and Europe
- Industry leading sustainability standards

Negative Emissions

Development of option for world's largest negative CO_2 facility

- 8Mt pa of negative emissions from BECCS in UK by 2030

Developing options for international new-build BECCS

Dispatchable, Renewable Power

Sale of CCGT gas assets and end of commercial coal generation

UK's largest source of renewable power by output

Supporting decarbonisation through the supply of renewable power to British Industry

Long-term low-carbon growth opportunities

- Demand for dispatchable generation and system support – biomass and pumped storage

1) Free on Board (FOB) – raw fibre, processing into a wood pellet, delivery to Drax port facilities in US and Canada, loading to vessel for shipment and overheads.

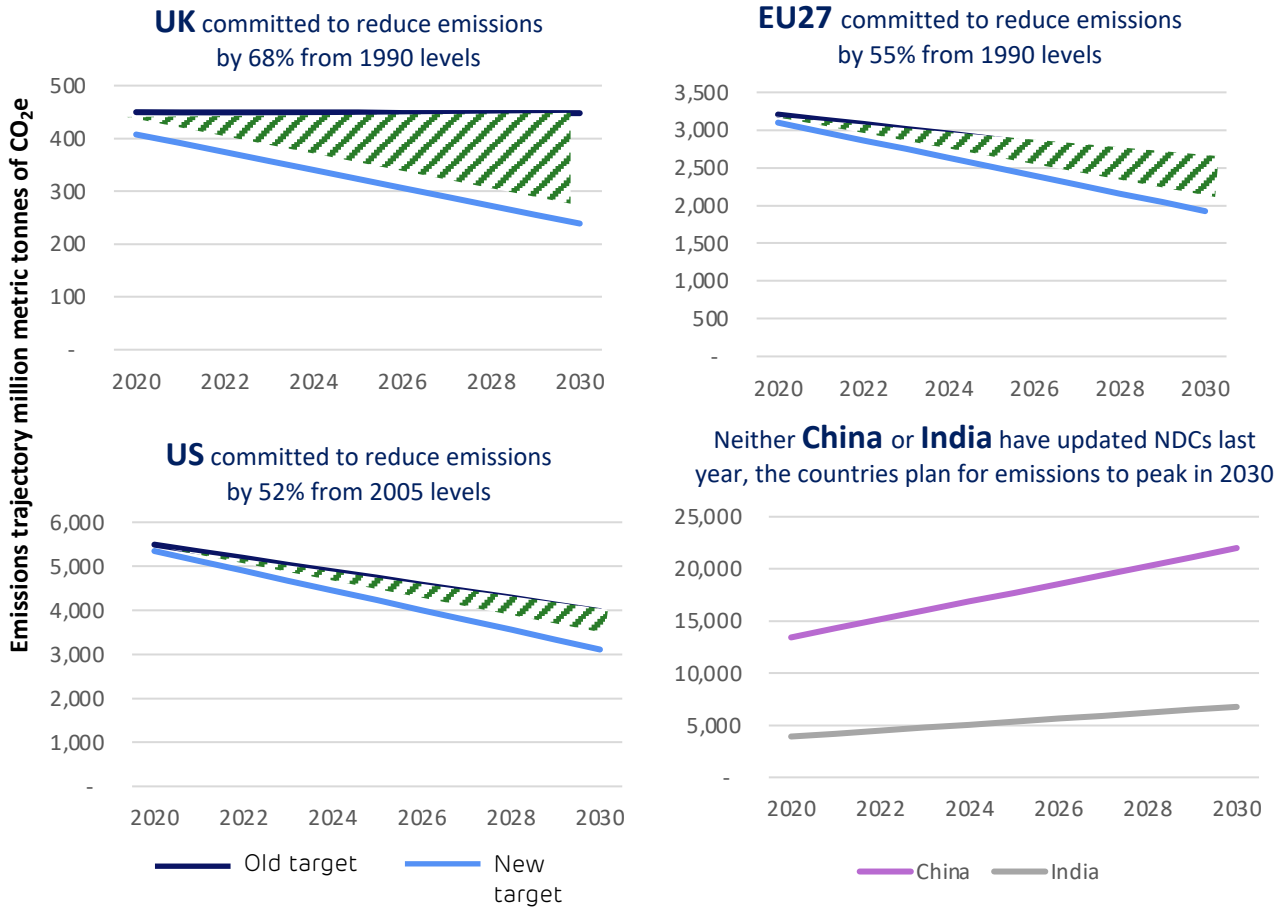
Increased Action on Climate Policy and Investment

Aligning national economic recovery plans to decarbonisation

COP26

- 90% of countries have net zero targets, 30% before COP26
- More than 40 countries committed to coal phase out
- Agreement to revisit and strengthen current emissions targets to 2030 in 2022
- Breakthrough Article 6 (carbon markets) deal potentially opens up $trillion's in investment, and clarity on rules around scaling up BECCS projects globally

Updated Nationally Determined Contributions (NDCs) suggest improved **emissions reductions trajectories** by 2030



Source: BNEF Climate Policy Factbook 2021

Global Policies to Address Climate Change

Sustainable biomass and negative emissions have a key role to play

"biomass will have to be a part of our energy portfolio if we are to remove our dependency on fossil fuels"

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

Japan	- Accelerated coal closure – 7GW of closure between 2020 and 2030 - Biomass use will double from 4GW to 8GW - 46% reduction in greenhouse gases by 2030, targeting net zero by 2050
Rest of Asia	- **Indonesia:** co-firing in all coal-fired power stations – c.9Mt of coal will be replaced with biomass - **South Korea:** increased renewables from 10% to 25%, closure of 30 coal plants by 2034 and net zero target by 2050 with key strategic pillar being deployment of CCS
Europe	- **EU:** bioenergy use to grow c.70% by 2050 to meet EU net zero targets; biomass power focused on coal dependent regions; BECCS encouraged through €40bn innovation fund and new negative emissions regulation - **Germany:** coal exit agreement brought forward to 2030; targeting 80% renewables; new biomass strategy and recognition of the need for negative emissions - **Poland:** coal phase out agreed by 2049; biomass seen as key pillar of maintaining energy security in the energy transition
US and Canada	- **US:** targeting carbon-free grid by 2035; net zero target by 2050; long-term strategy recognises the need for biomass and BECCS - **Canada:** coal phase-out by 2030; net zero electricity system by 2035 and federal carbon price plan to increase $15/t per year from 2023 to reach $170/t by 2030

UK Energy Policy

To date the UK has been a leader in renewables and the decarbonisation of power
Clear Government commitments to negative emissions, biomass and BECCS

Dec-20

UK Government Energy White Paper

- "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."

Oct-21

Net Zero Strategy – Greenhouse Gas Removal (GGR) ambition

- 5Mt pa by 2030, 23Mt pa by 2035 and up to 81Mt pa by 2050
- Retrofit BECCS power could be deployed by the late 2020s
- Consultation on business models for GGRs due in Spring 2022
- Independent regulator for GGR monitoring by 2024
- Value of permanent removal vs. nature-based removal recognised
- Climate Change Act amended to enable GGRs to contribute to UK carbon budgets

Nov-21

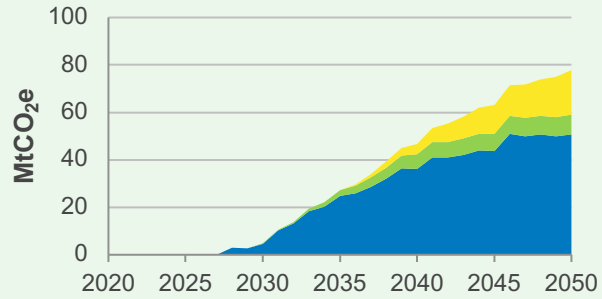
Biomass Policy Statement

- Biomass is considered a renewable, low-carbon energy source
- Policy aims for sustainable biomass use across the economy
- Commitment to develop a separate BECCS business model

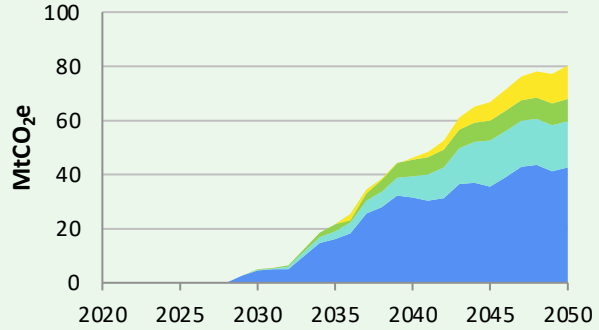
NG Future Energy Scenarios – Negative Emissions

- Scenarios consistent with net zero assume large-scale negative emissions

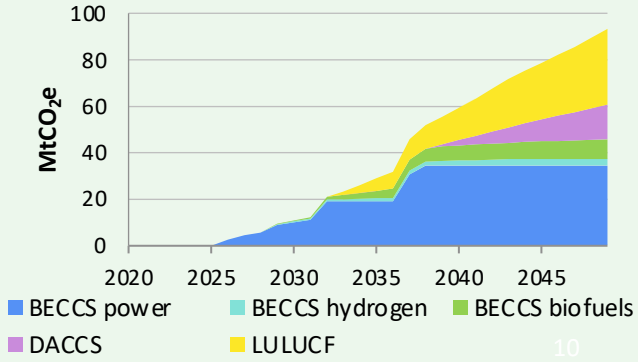
Consumer Transformation



System Transformation



Leading the Way



Drax Strategic Objectives

Positioning Drax for growth opportunities linked to global renewable energy and decarbonisation initiatives

Pellet Production

Objective 1: to be a global leader in sustainable biomass pellets

- Pellet sales, own-use, cost reduction, fibre sourcing and technology

Negative Emissions

Objective 2: to be a global leader in negative emissions

- Development of projects in UK and internationally
- Carbon negative by 2030

Dispatchable, Renewable Power

Objective 3: to be a leader in UK dispatchable, renewable power

- Biomass, pumped storage and hydro
- Renewable power and energy services to strategic customers

All underpinned by safety, sustainability and cost reduction – targeting $100/t(1)

1) Free On Board – cost of raw fibre, processing into a wood pellet, delivery to Drax port facilities in US and Canada, loading to vessel for shipment and overheads.

A Global Leader in Sustainable Biomass Pellets

Significant increase in demand for biomass in industrial wood pellet markets

Expansion of biomass supply chain to maximise value of biomass use across three strategies

- Sales to third parties
- BECCS
- Generation

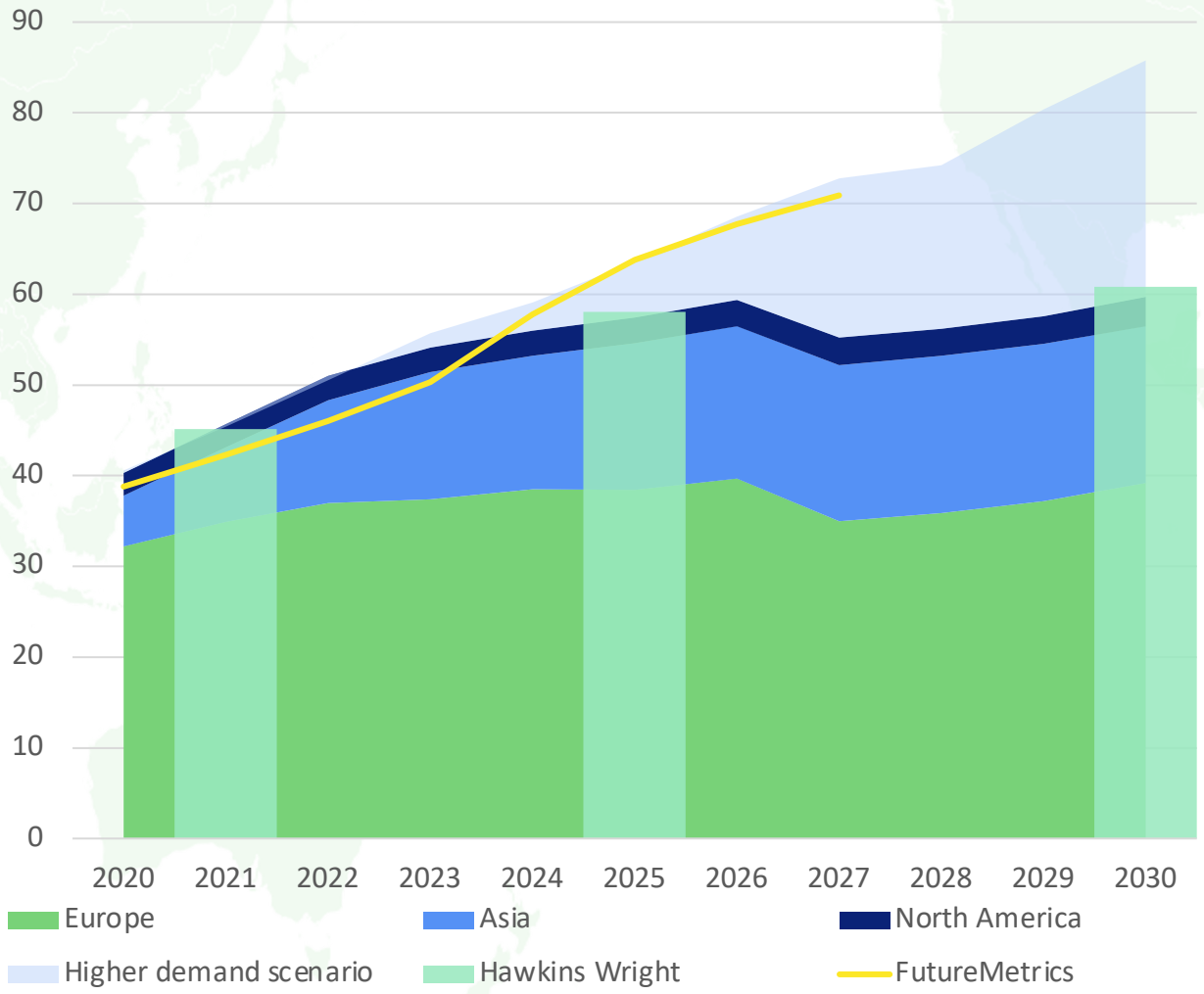
Targets

- Double sales to third parties from 2Mt to 4Mt pa by 2030
- Increase pellet production capacity from 4Mt to 8Mt pa by 2030

Global Industrial and Heating Pellet Demand

Robust demand with potential to double by 2030 through policy developments, BECCS and other biomass vectors

Global industrial and heating wood pellet market demand growth (Mt)



FutureMetrics and Hawkins Wright

- Third-party analysis supports growth outlook
- Incorporates existing policy framework, evolving policies in industrial sector, including co-firing

Visible route to a doubling of current demand

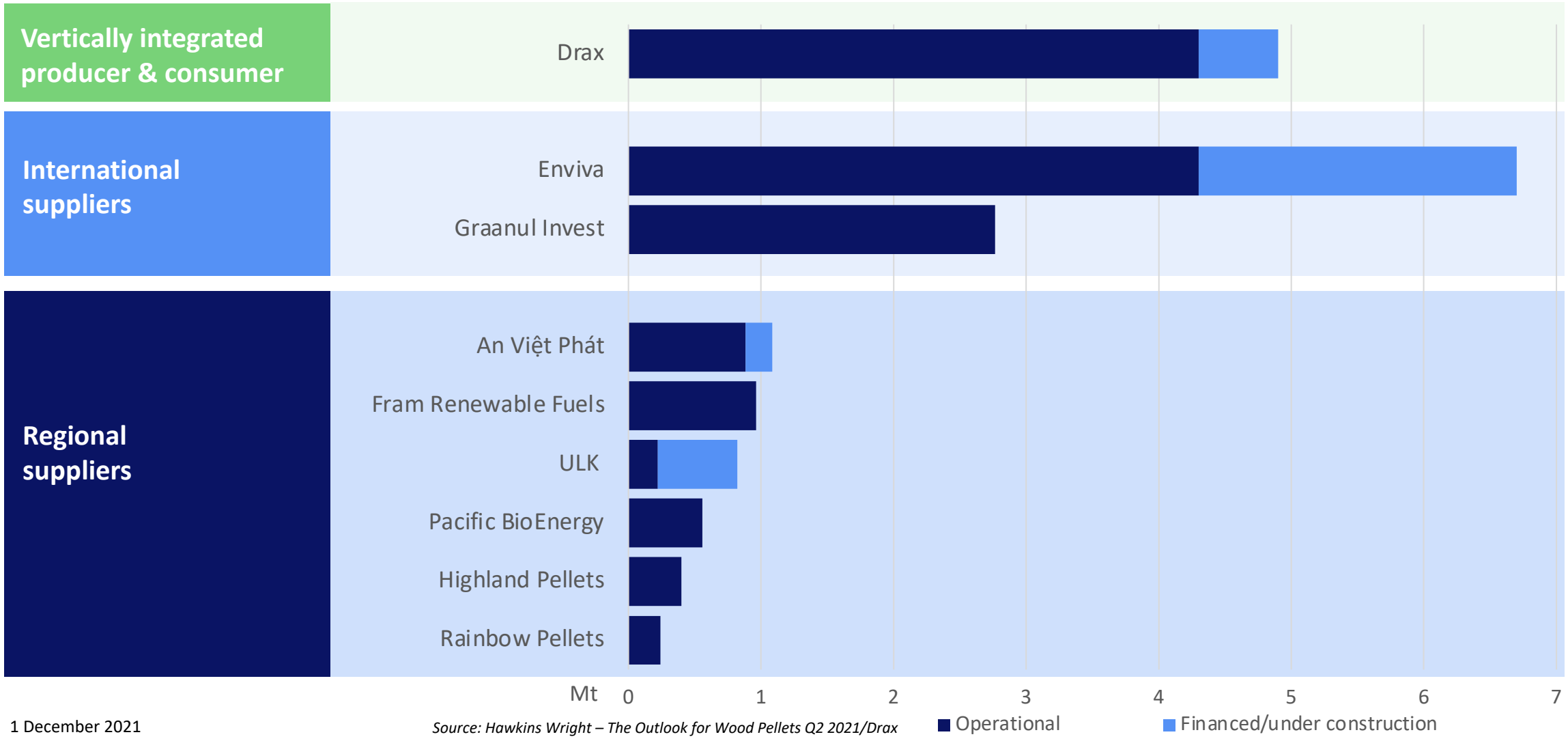
- Role for coal-to-biomass conversions
- UK BECCS in line with Net Zero Strategy
- European demand for BECCS and Combined Heat & Power
- Wider Asian demand
- Other biomass vectors

Demand could be higher with greater use of BECCS globally

Source: Drax, FutureMetrics and Hawkins Wright

The Global Wood Pellet Market Today

Drax is the 2nd largest global supplier of wood pellets and the leading producer and user of biomass

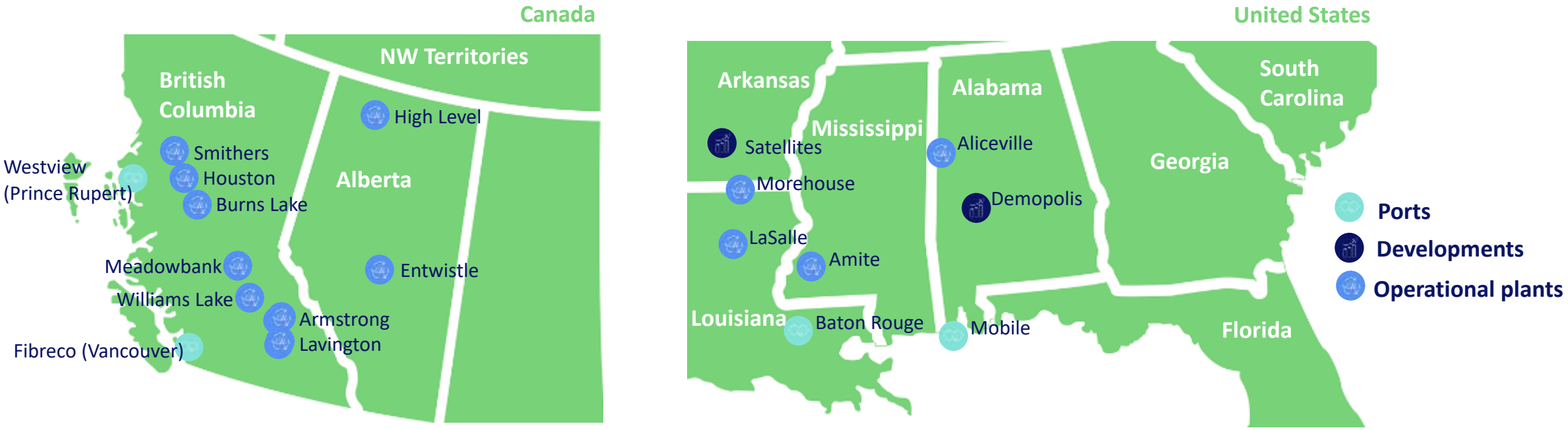


Source: Hawkins Wright – The Outlook for Wood Pellets Q2 2021/Drax

Today Drax is a Major Producer and Supplier of Biomass to Customers Globally

An enlarged and geographically diversified supply chain

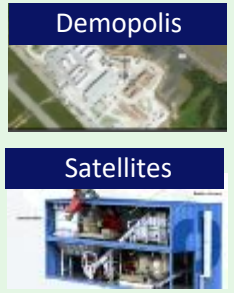
4Mt current capacity – 13 operational pellet plants plus developments across 3 major fibre baskets and 4 deep water ports



Operational plants

Ports

Developments



1 December 2021

1) Fibreco and Mobile facilities not owned/leased by Drax.

Attractive Third-Party Supply Business with Opportunities for Growth

Geographic diversity supports strong logistics into Asia and Europe, operational flexibility and security of supply

Global supply chain meeting third-party and own-use demand

- Logistics optimisation and enhanced security of supply
- Presence in Asian and European and markets
- Strong sales team addressing Asian and European markets
- Strong relationships and long history in all key markets

High-quality supply chain

- 4Mt from 13 fully operational plants, plus developments
- Sourcing from three major North American fibre baskets
- 4 deep water ports accessing Asian and European freight routes

Fully contracted capacity

Nameplate capacity 2022	Mt
Sales to European counterparties	0.7
Sales to Asian counterparties	1.3
Drax own-use	2.8
Total nameplate capacity	**4.8**

1 December 2021

Attractive third-party supply business

- >US$4bn of contracted sales to customers
- 20Mt of contracted sales
- Contracts extending to mid-2030s
- High-quality Japanese, Korean and European counterparties

Mitsubishi Corporation
Sumitomo Corporation
MITSUI&CO.
EPH
HK HANWA
中广核 CGN
uniper
RWE
UBE UBE INDUSTRIES,LTD.
GS Global
TOYOTA TSUSHO CORPORATION

New capacity required to support further growth in third-party demand and own-use

Putting in Place Infrastructure to Support Growth in Biomass Sales

Establishment of international business development teams and expansion of international affairs team

2022 Milestones

Establishment of Asian business development team and Tokyo field office

- Regional responsibility with focus on Japan

Establishment of European business development

- Regional responsibility with German, Polish & industrial focus

Leverage Drax generation technical expertise in biomass conversion to support biomass sales

International affairs

- Adding resource globally on sustainability, regulation and policy to support use of biomass in countries decarbonisation plans

Meeting Pellet Demand Growth Requires Development of New Capacity

Opportunities to maximise value across third-party biomass sales, BECCS and generation

Demand/Supply	Sources	Current	2030
Demand	Sales to third-parties	2Mt	4Mt
	Own-use UK BECCS (2 units)	-	5Mt
	Own-use generation	7Mt	1-2Mt
		9Mt	**10-11Mt**
Supply	Drax produced	4Mt	8Mt
	Other lower cost biomass sources and third-party supply	5Mt	2-3Mt
		9Mt	**10-11Mt**

Increase biomass capacity from 4Mt up to 8Mt by 2030 for third-party sales, UK BECCS and generation, balance of supply from other lower cost biomass sources and third-parties

Potential for further demand from development of new BECCS projects and other uses of biomass

Biomass Supply Chain Development

Build on existing capabilities to develop new-build opportunities for large plants and satellite developments

Strong progress in 2021

Acquisition of Pinnacle doubled production capacity

- 4Mt of production capacity

Established future operating model

- Joint approach to project development led by Andrea Johnston, Pinnacle's former CFO
- Increased expertise in low-cost production and third-party supply management

550Kt of new capacity added in H2 2021

- 150Kt capacity expansion of LaSalle complete
- 360Kt Demopolis plant currently commissioning
- 40Kt Leola plant currently commissioning

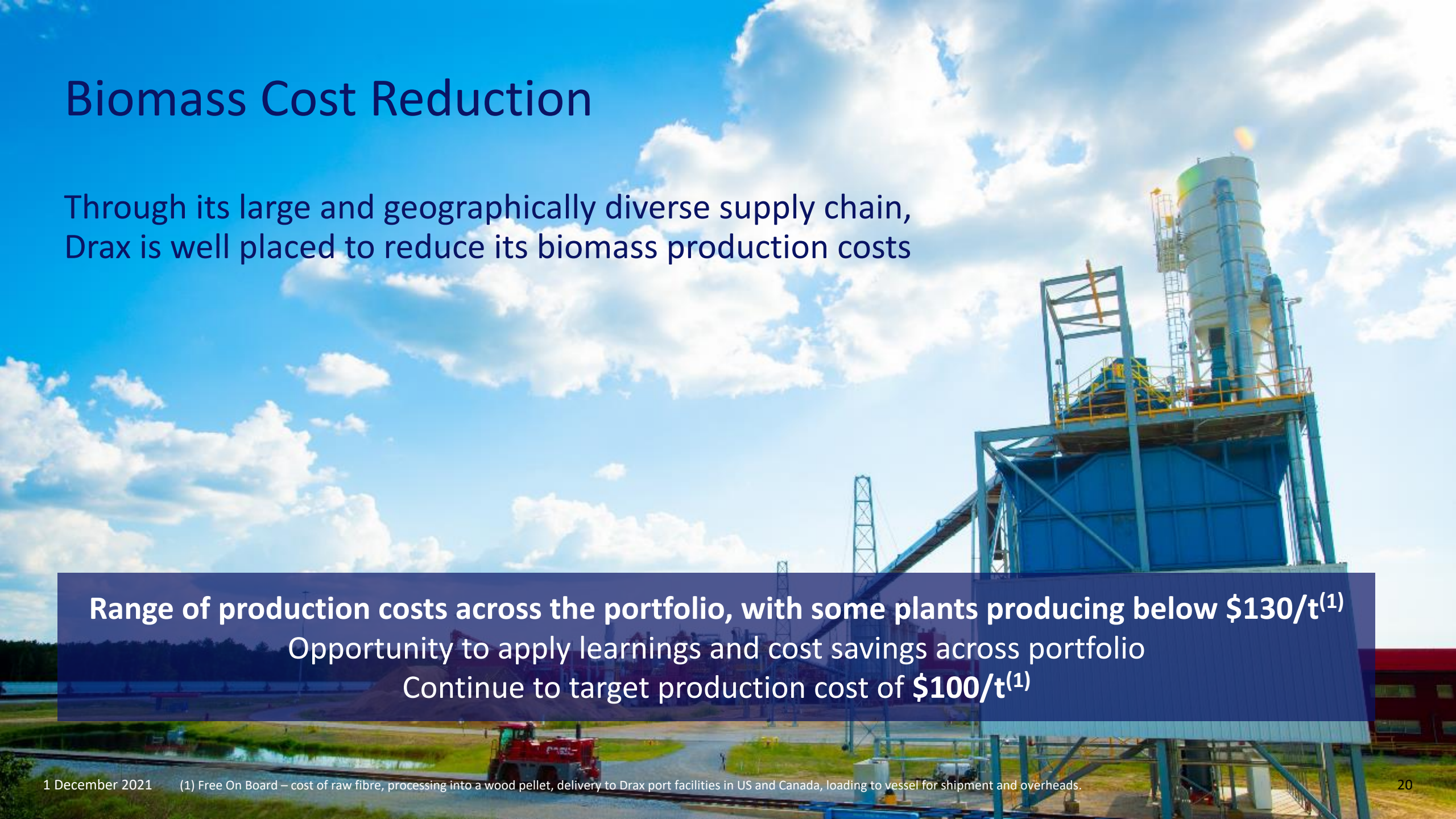
Opportunities for optimisation of enlarged portfolio

2022 milestones

Final investment decision on 0.5-1Mt of new capacity

Biomass Cost Reduction

Through its large and geographically diverse supply chain,
Drax is well placed to reduce its biomass production costs

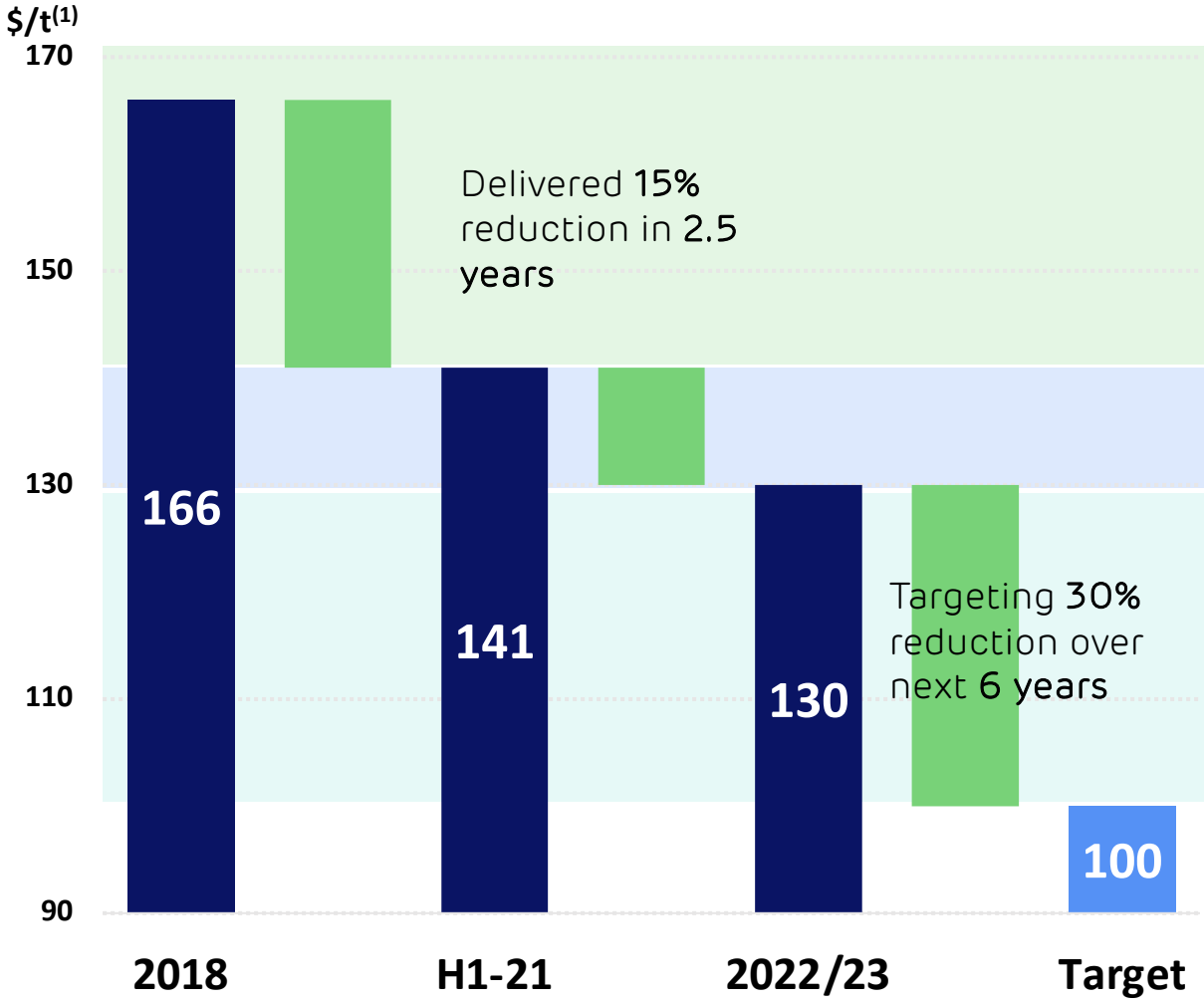


Range of production costs across the portfolio, with some plants producing below $130/t(1)
Opportunity to apply learnings and cost savings across portfolio
Continue to target production cost of **$100/t(1)**

(1) Free On Board – cost of raw fibre, processing into a wood pellet, delivery to Drax port facilities in US and Canada, loading to vessel for shipment and overheads.

Integrated Supply Chain and Use Supports Wider Range of Cost Reduction Opportunities

15% reduction in production cost in 2.5 years, with opportunities to deliver a further 30% reduction



Operational efficiencies, improvements, expansion and acquisition

- Increased use of sawmill residues
- Co-location with sawmills
- Rail logistics improvements
- Increase in lower cost production capacity

New capacity, continued operational efficiencies and improvement

Actions required to realise further savings and efficiencies

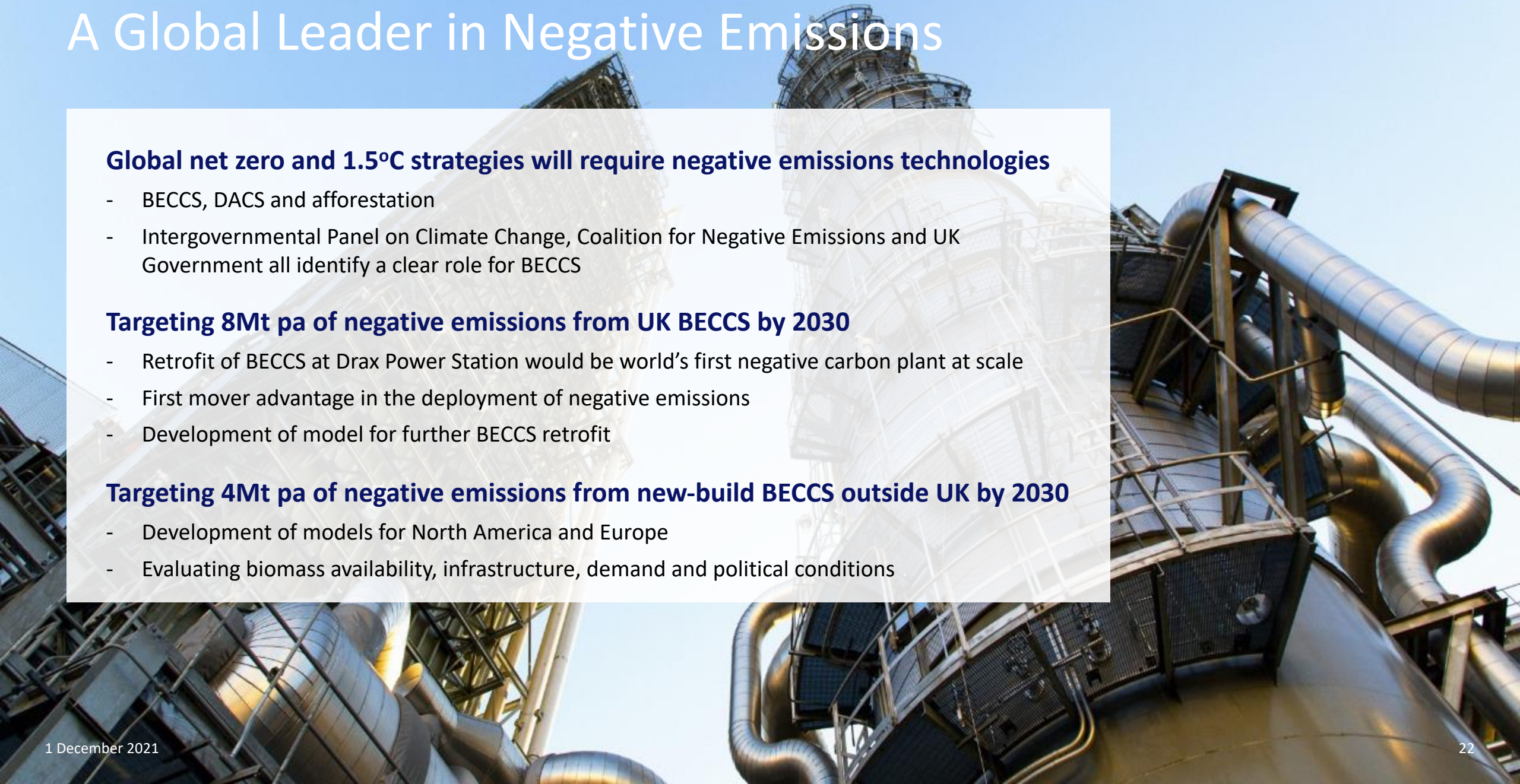
- Lower cost, wider range of biomass materials
- Continued optimisation
- Development technologies and approaches

2022 Milestones

- Continued reduction in pellet production costs
- Approve new fuels, expanding fuel mix to deliver >100kt of lower cost sustainable biomass

(1) Free On Board – cost of raw fibre, processing into a wood pellet, delivery to Drax port facilities in US and Canada, loading to vessel for shipment and overheads.

A Global Leader in Negative Emissions



Global net zero and 1.5°C strategies will require negative emissions technologies

- BECCS, DACS and afforestation
- Intergovernmental Panel on Climate Change, Coalition for Negative Emissions and UK Government all identify a clear role for BECCS

Targeting 8Mt pa of negative emissions from UK BECCS by 2030

- Retrofit of BECCS at Drax Power Station would be world's first negative carbon plant at scale
- First mover advantage in the deployment of negative emissions
- Development of model for further BECCS retrofit

Targeting 4Mt pa of negative emissions from new-build BECCS outside UK by 2030

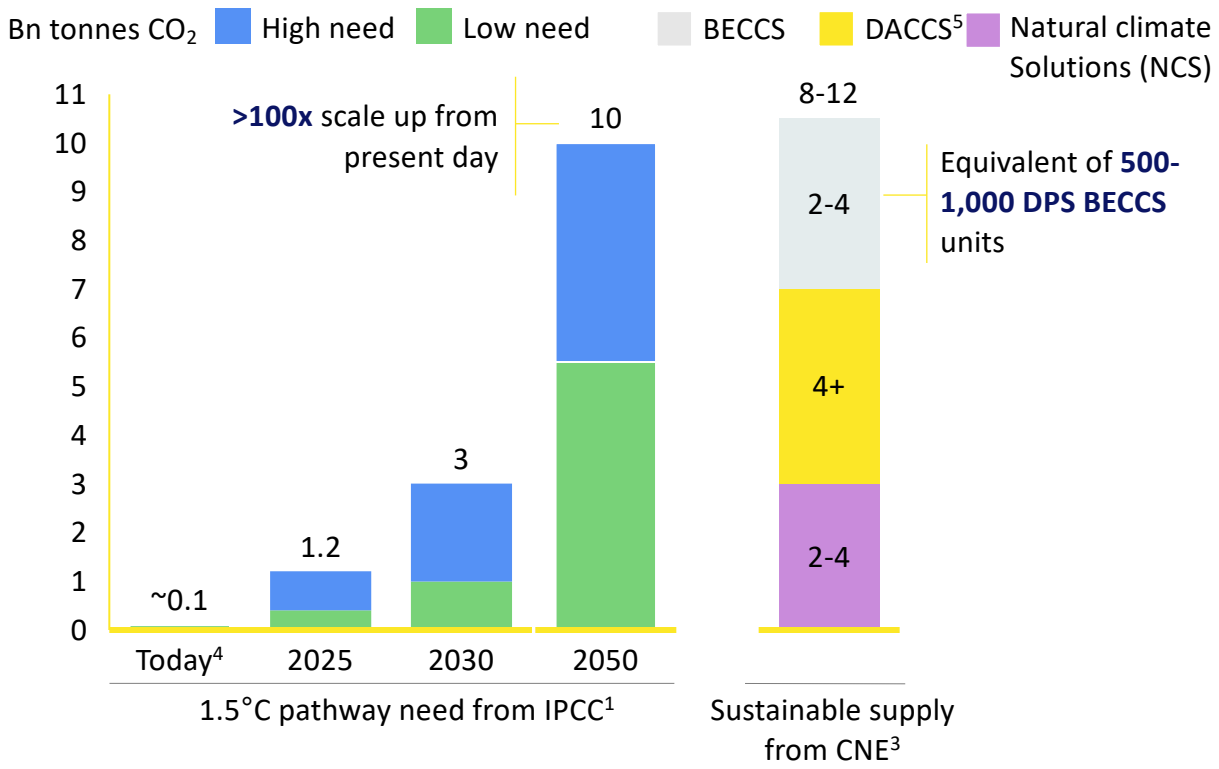
- Development of models for North America and Europe
- Evaluating biomass availability, infrastructure, demand and political conditions

Negative Emissions – A Trillion Dollar Market Opportunity

Negative emissions are a critical part of the 1.5°C climate pathway and BECCS has an essential role

Only a portfolio that includes BECCS can meet the negative emissions need

Negative emissions needed in 1.5°C pathway (IPCC[1,2]) vs. supply



The world is starting to value negative emissions, paving the way to a valuable market

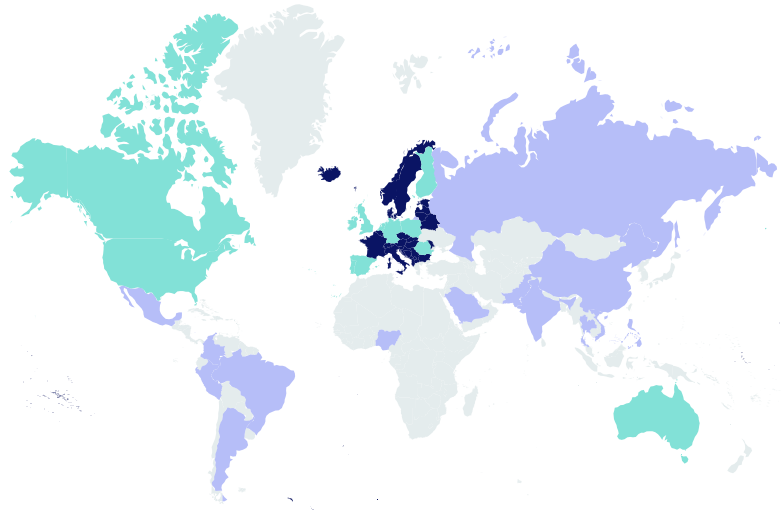
$100/t

As an example, Microsoft publicly expects to pay ~$100/tonne for removals long-term

1.5-2bn tonnes

The world's largest gathering of voluntary carbon offset stakeholders expect to buy 1.5-2.0bn tonnes in 2030; with a shift from low-quality offsets (e.g., reduction offsets[4]) in favour of negative emissions

COP26: 90% of countries have net zero targets, 30% before COP26



- Natural climate solutions and engineered removals
- Engineered removals
- Natural climate solutions

UN-backed Principles for Responsible Investment estimate that the negative emissions market could be in the trillions of dollars by 2050

1. Intergovernmental Panel on Climate Change.
2. Range of median values for three 1.5°C warming pathways published by the IPCC (less than 1.5°C, low overshoot, high overshoot).
3. Coalition for Negative Emissions.
4. Where Company A pays Company B to reduce emissions, but Company A takes all credit for the reduction. Can be criticised for lack of additionality.
5. Direct Air Capture and Storage.

Source: IPCC; NGFS; McKinsey; PRI

Development of UK BECCS

Drax Power Station – targeting 8Mt pa of negative emissions from BECCS by 2030

Good progress in 2021

Technology

- Successful completion of solvent trials
- Selection of technology partner – Mitsubishi Heavy Industries
- Completion of pre-Front End Engineering Design (FEED) study

Planning

- Commencement of planning application, including formal public consultation on project

Transportation and storage

- Selection of the East Coast Cluster as a priority cluster for deployment of Carbon Capture and Storage infrastructure

Government commitments

- Net Zero Strategy – Greenhouse Gas Removal ambition
  - *5Mt pa by 2030, 21Mt pa by 2035 and up to 81Mt pa by 2050*
  - *Retrofit BECCS power could be deployed by the late 2020s*
- Biomass Policy Statement

2022 milestones

Technology

- Selection of engineering/construction partner and commencement of detailed engineering design study

Planning

- Planning application submitted

Government commitments

- Run competitive process for Gas CCS, industrial CCS and hydrogen projects
- Develop and initiate selection process for BECCS and other greenhouse gas removal projects
- Publish Bioenergy Strategy Review H2 2022

Development of New-build BECCS

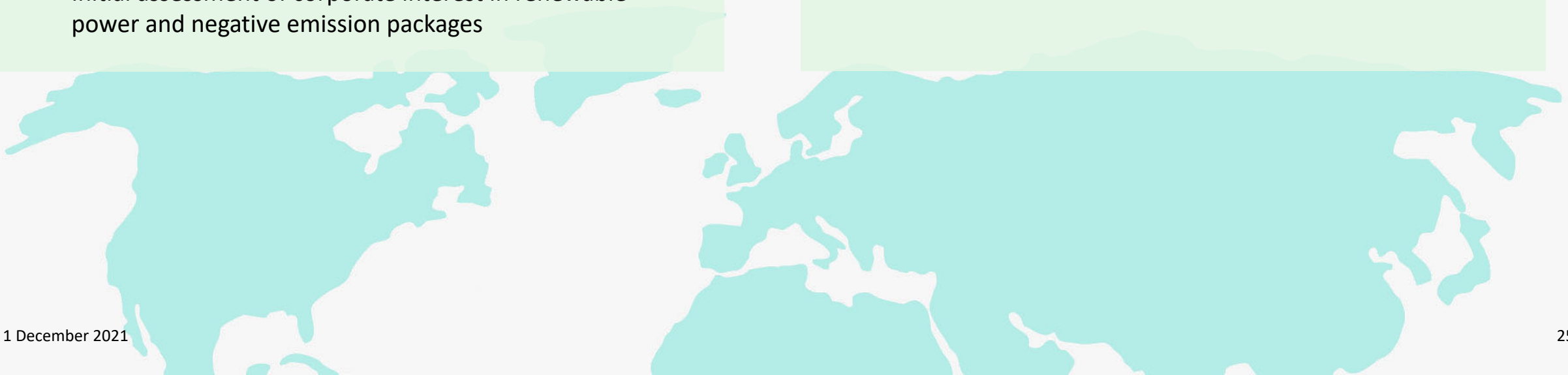
Targeting 4Mt pa of negative emissions from new-build BECCS outside UK by 2030

Good progress in 2021

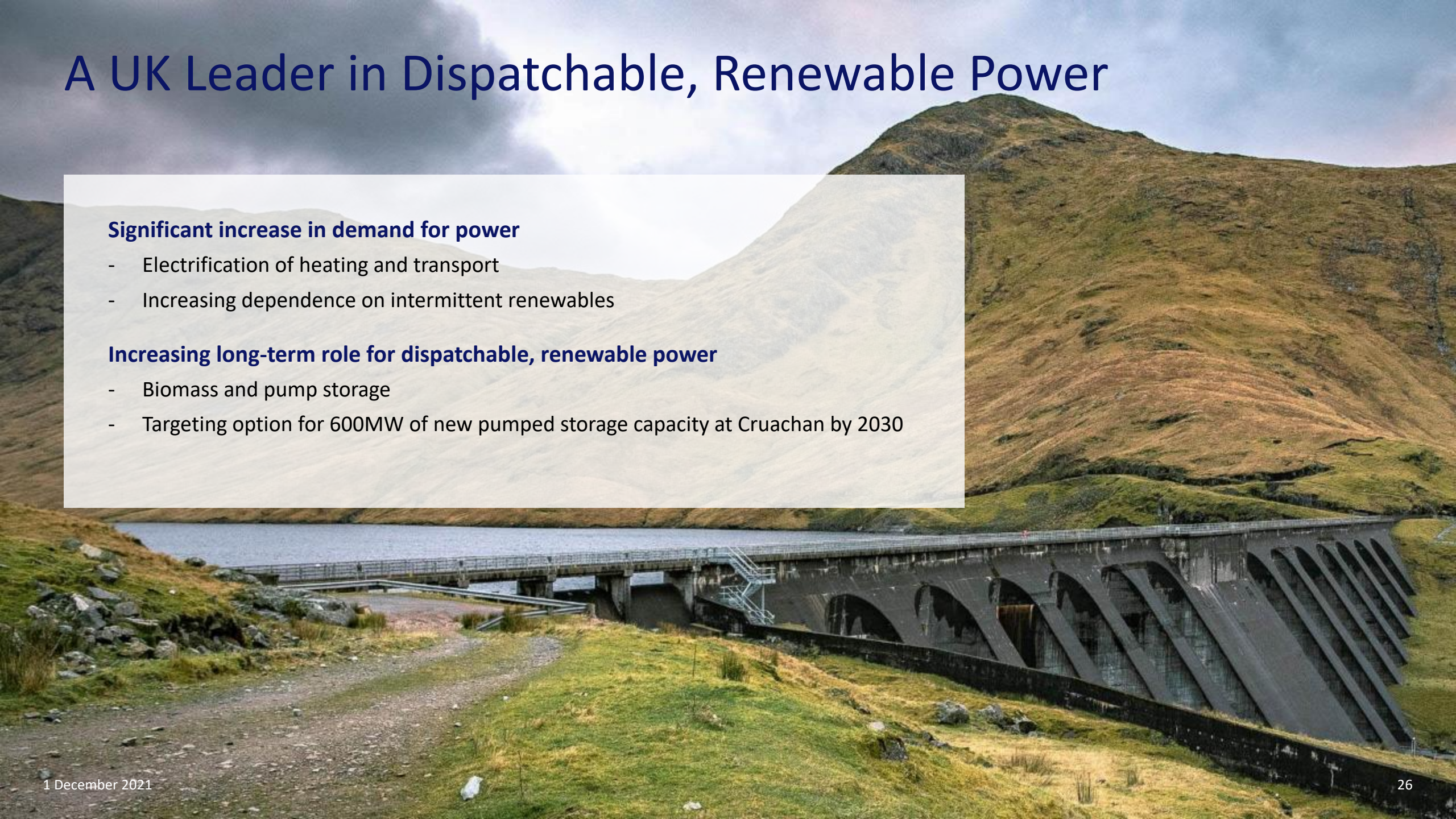
- Appointed Bechtel to support technical evaluation of new-build BECCS outside UK
- Global location screening
- Fibre availability, transport and storage options
- Evaluation of technologies
- Evaluation of existing support schemes
- Initial assessment of corporate interest in renewable power and negative emission packages

2022 milestones

- Program of government engagement
- Site location filtering
- Progress discussions on renewable power and negative emission packages
- Commence detailed CO_2 storage evaluation program
- Refine technical concepts



A UK Leader in Dispatchable, Renewable Power



Significant increase in demand for power

- Electrification of heating and transport
- Increasing dependence on intermittent renewables

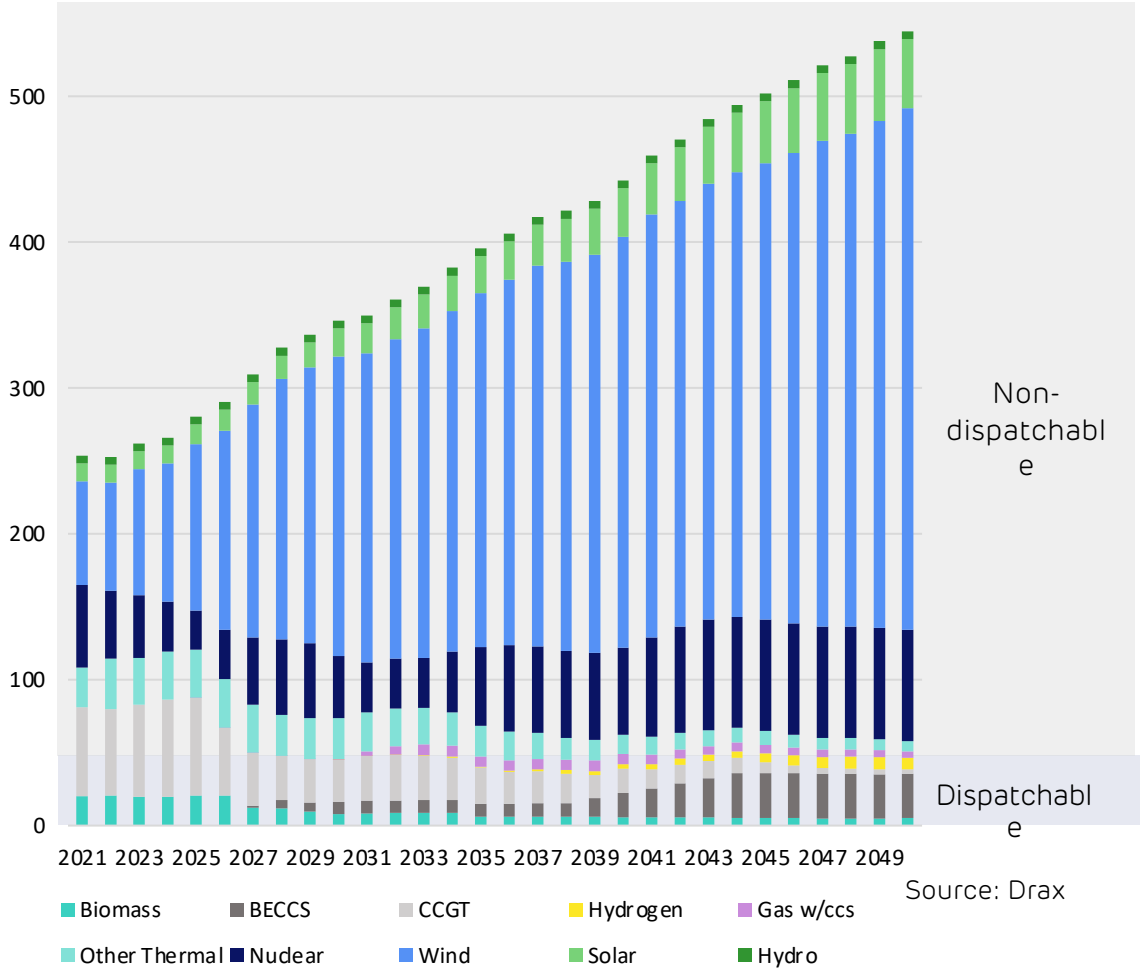
Increasing long-term role for dispatchable, renewable power

- Biomass and pump storage
- Targeting option for 600MW of new pumped storage capacity at Cruachan by 2030

90% of Future Generation Mix from Non-dispatchable Sources By 2050

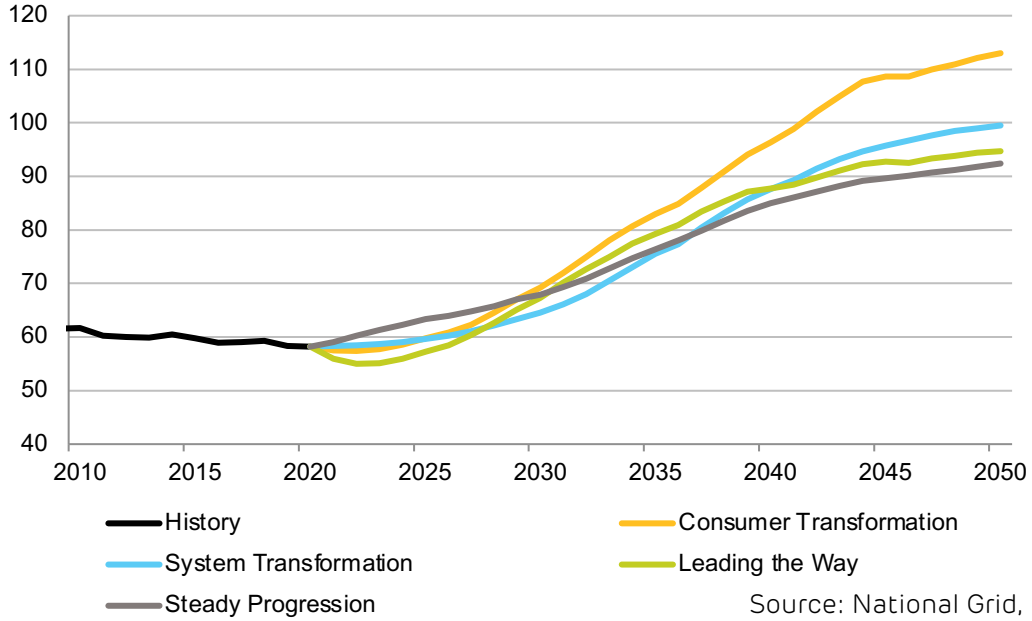
Increase in power demand from electrification, increase in intermittent renewables and increase in peak demand
Dispatchable biomass and pumped storage has an important long-term role to play in supporting the system

Power demand and sources (GW) – increase in non-dispatchable



Source: Drax

Peak demand is increasing (GW)



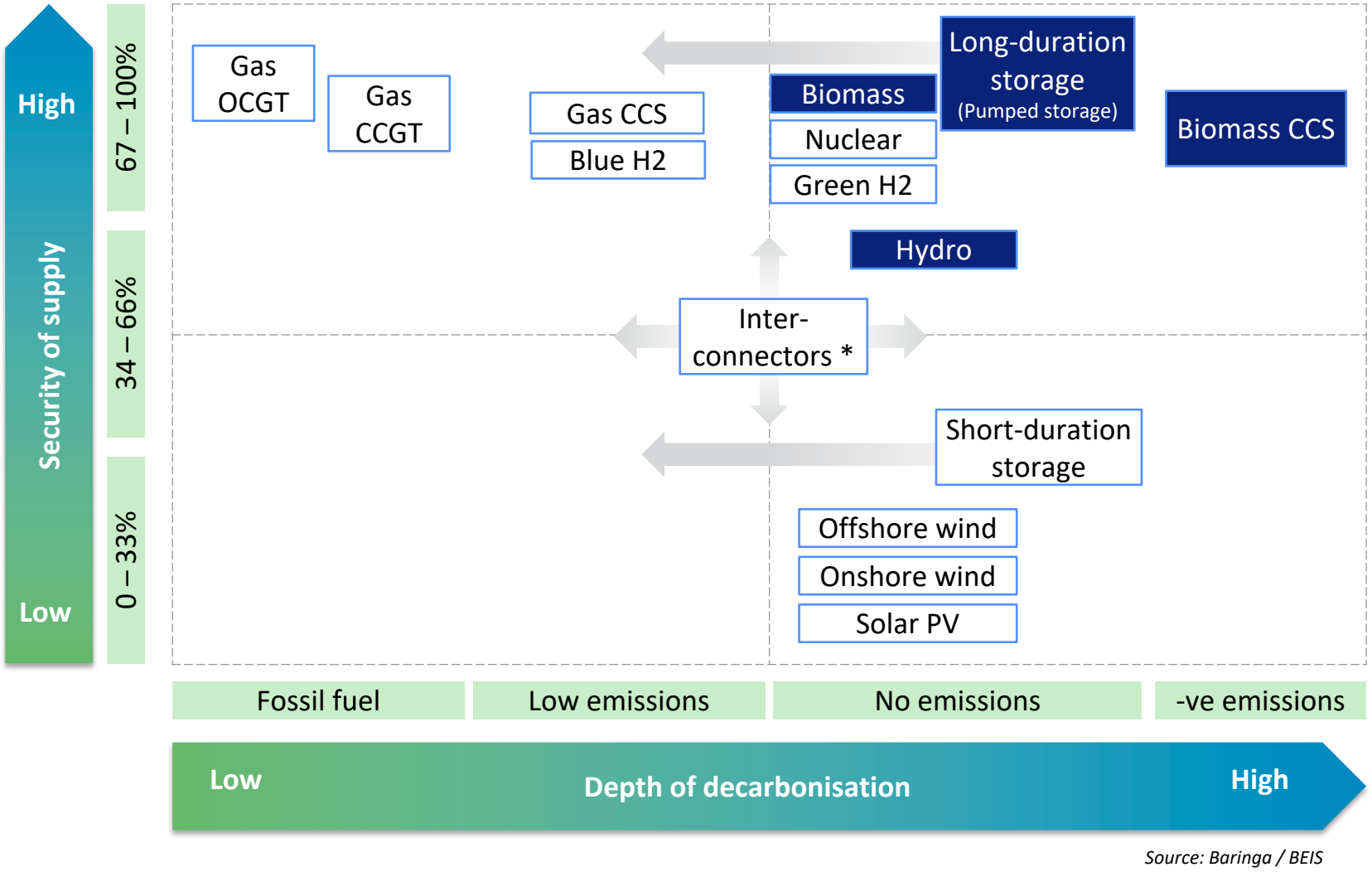
Source: National Grid, FES

2050: increased demand, increase in peak, reduction in dispatchable plant

- 75% increase in power demand
- Wind – from 70GW pa today to 360GW pa
- <10% of assets dispatchable
- Unabated gas <1% of generation

Biomass and Long-duration Storage Provide Both Security of Supply and Decarbonisation

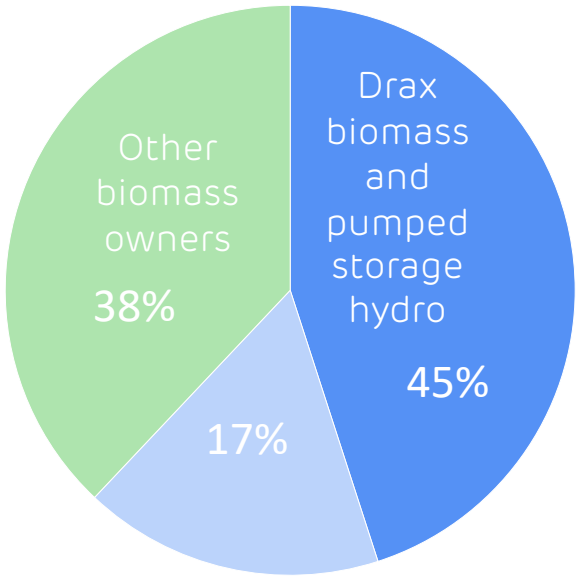
Drax is UK leader in provision of dispatchable and renewable power (by output)



Source: Baringa / BEIS

Arrows indicate dependency on input power mix

TWh dispatchable and renewable power output 2020/21



Source: Drax insights / Dukes

Pumped Storage Hydro – a Natural Extension of Drax Portfolio

Dispatchable power and long-duration storage aligned with system needs

Strategic	- System requires dispatchable plant and long-duration storage to manage increase in intermittent renewables - Limited site options for new developments
Value	- Participate in wholesale, Balancing Mechanism and ancillary services markets - Increased system volatility as thermal generation replaced by intermittent renewables - Lowest cost for long-duration power storage
Experience	- Optimisation of pumped storage alongside existing portfolio and intermittent renewables
Synergy	- Build on our existing capability and operations to maximise synergies across the portfolio

National Grid Future Energy Scenarios

1.4-2.4GW of new pumped storage hydro required

Cruachan II

- 600MW expansion of Cruachan (1GW once complete)
- Targeting FID in 2024, operational in 2030
- Investment subject to appropriate regulatory framework

Near-term Timetable for Development of Cruachan II

2022

- Submission of planning application to Scottish Government
- Consultation on investment support mechanism
- Connection agreement secured from National Grid

2023

- Planning consent issued by Scottish Government
- Legislation passed to enact investment support mechanism and Ofgem determine detailed design
- Pre-design and technical works, including ground investigations

2024

- Pre-construction enabling works
- Site works, deep drilling and completion of design to inform EPC contract
- Final investment decision

Summary

Drax strategic objectives closely aligned with net zero policies, providing attractive opportunities for growth

UK and international policies increasingly support the use of biomass, BECCS and the role of dispatchable generation

Pellet Production	- Targeting 4Mt pa of third-party pellet sales by 2030 - Targeting 8Mt pa of pellet production capacity by 2030
Negative Emissions	- Targeting 8Mt pa of negative emissions from UK BECCS by 2030 - Targeting 4Mt pa of negative emissions from new-build BECCS outside UK by 2030
Dispatchable, Renewable Power	- Long-term system need for biomass generation - Develop option for additional 600MW pumped storage by 2030
Underpinned by safety, sustainability and biomass cost reduction	- Continue to target biomass cost reduction – $100/t(1) by 2027 - Investment in resources to deliver strategy and purpose

(1) Free On Board – cost of raw fibre, processing into a wood pellet, delivery to Drax port facilities in US and Canada, loading to vessel for shipment and overheads.

Sustainable Development

Dr Alan Knight OBE: Director of Sustainability

1 December 2021

Sustainable Development is More Than Just CO_2

Resources to create modern lives are finite

Currently – 7 billion quality lives requires 3 planets of resources!

The United Nations Sustainable Development Goals

Drax Sustainable Development Framework

Ensuring Drax is addressing the risks and opportunities from sustainability trends
An outcome approach….

Climate Positive

90% reduction in generation CO_2 since 1990

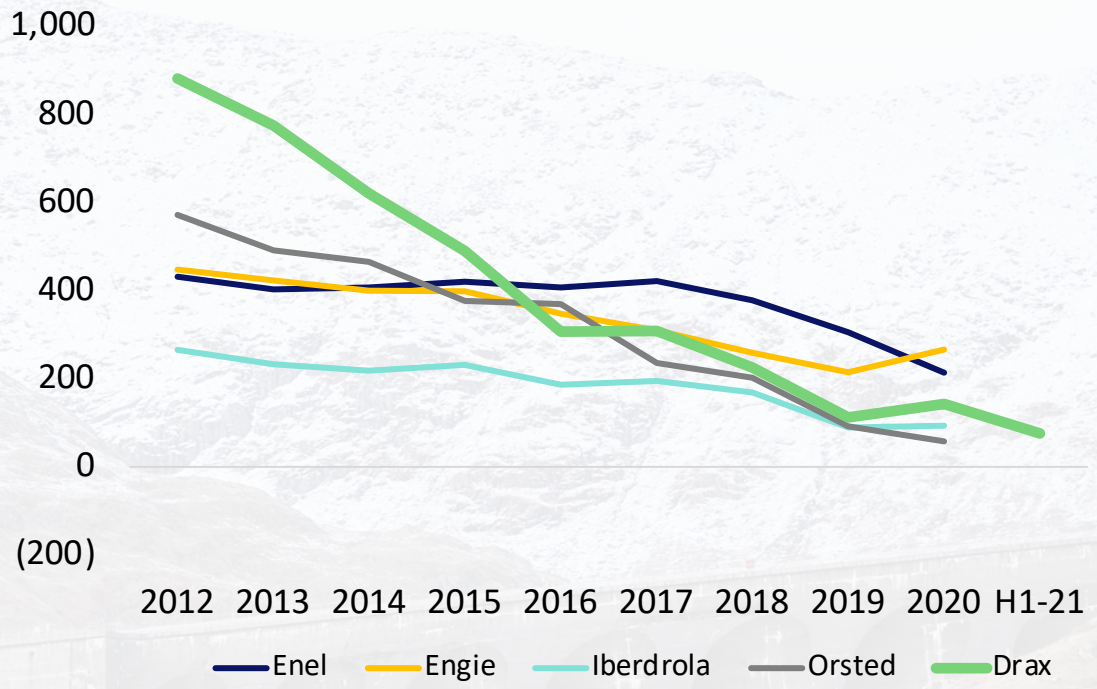
- Drax is the UK's largest source of renewables – 12%(1)
- Dispatchable power – biomass and pumped storage supports greater deployment of intermittent renewable and inflexible low-carbon generation

Reducing the remaining 10%....

New targets for scope 1, 2 and 3

- Net zero by 2030
- 42% reduction in emissions vs. 2020 base by 2030

Industry leading CO_2 intensity reduction (tCO_2e/GWh)



Source: Bloomberg/company data

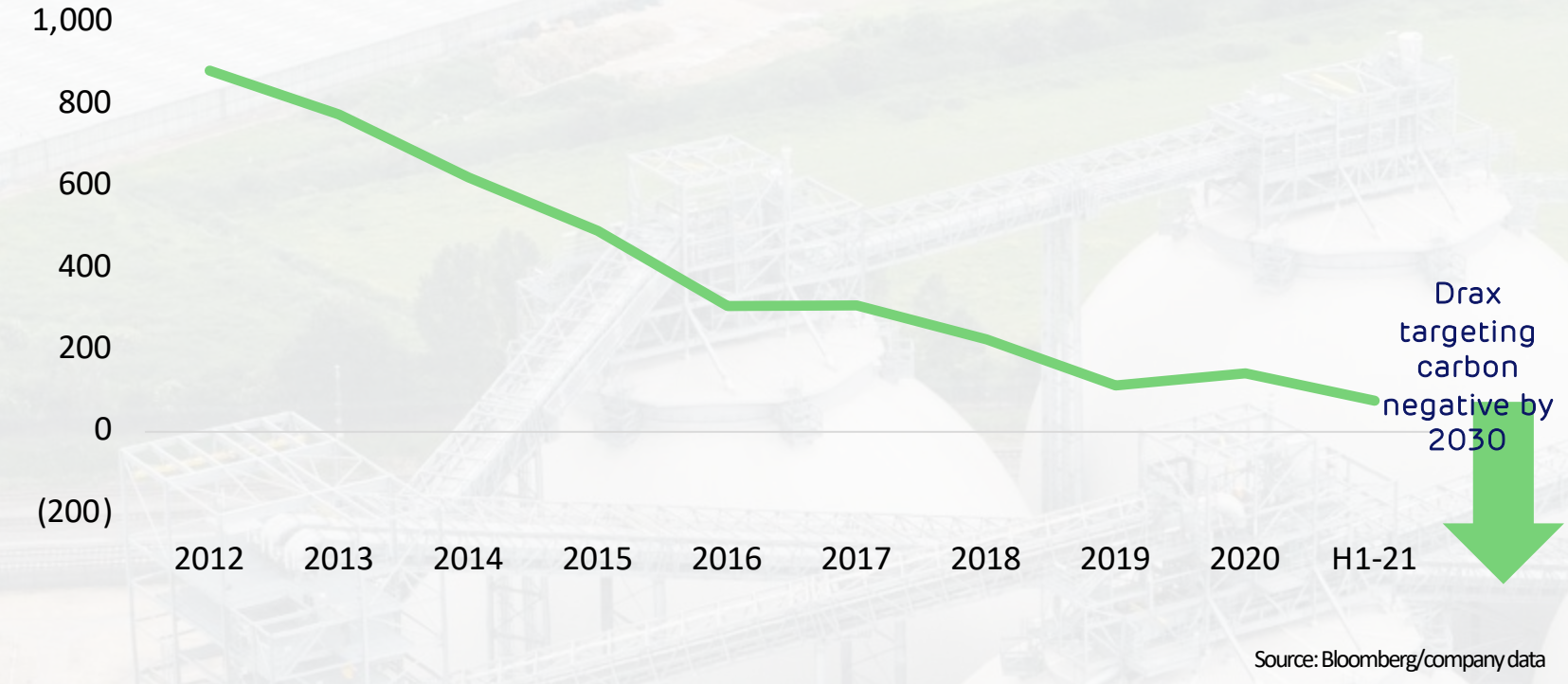
(1) By output Q2 2020 to Q1 2021.

Mapping of Emissions

Forensic assessment, monitoring, audit and reporting of supply chain emissions will lead to targeted reductions

Scope 3 – upstream	Scope 1 – direct	Scope 2 – indirect	Scope 3 – downstream
- Fuel source supply chains - Biomass transport from pellet plants - Utilities as part of lease contracts - Emissions from operational and capital purchases - Business travel - Employee commuting	- Coal power generation - Methane and nitrous oxide emissions - Pellet plant operations - Pellet port operations - Large plant vehicles - Flue gas desulphurisation - Company vehicles - Fluorinated gases from heating, ventilation and air conditioning systems	- Hydro electricity consumption - Pumped storage electricity consumption - Customers electricity consumption - Generation electricity consumption - Pellet plant electricity consumption	- Recycling, processing and disposal of waste - Reuse and reprocessing of by-products - Transmission and distribution - Emissions from use of sold electricity - Emissions from use of sold natural gas - Emissions from transport and use of sold pellets

Climate Positive by Being Carbon Negative



8Mt of negative emissions pa at Drax Power Station by 2030

- Being a provider of negative emissions, helping other companies and UK achieve net zero
- The largest carbon negative project in the world

Nature Positive

Well-established science and policy underpins biomass sustainability

Frans Timmermans, EU Climate Chief

*Without biomass, we're not going to make it, we need biomass in the mix… but we need the **right biomass** in the mix*

Euractiv – Nov 2021

Clear scientific principles underpin the use of sustainable biomass

- Scientific consensus though the Intergovernmental Panel on Climate Change (IPCC) (25,000 scientists) which recognises biomass as a critical source of renewable energy
- EU Emissions Trading Scheme sustains the status of biomass as neutral at the point of combustion, and the Renewable Energy Directive has strict rules on biomass origin and use
- Drax follows the rules for carbon accounting set out by the IPCC

Sources of Biomass Supply

Drax uses what other industries cannot

Drax Power Station sources of fibre by location – H1-21

	Sawmill residues	Branches, tops and bark	Thinnings	Low grade round wood	Agri. residues	Total
USA	20%	4%	15%	26%	1%	**66%**
Canada	11%	1%	<1%	3%	-	**15%**
Latvia	1%	-	<1%	6%	-	**8%**
Estonia	1%	-	<1%	1%	-	**3%**
Portugal	<1%	1%	<1%	<1%	-	**2%**
Brazil	-	-	-	4%	<1%	**4%**
Other European	<1%	-	-	<1%	2%	**2%**
Total	**35%**	**6%**	**16%**	**40%**	**3%**	**100%**

Forestry Economics Support Sustainable Sourcing

Cutting down trees purely for biomass is not economic

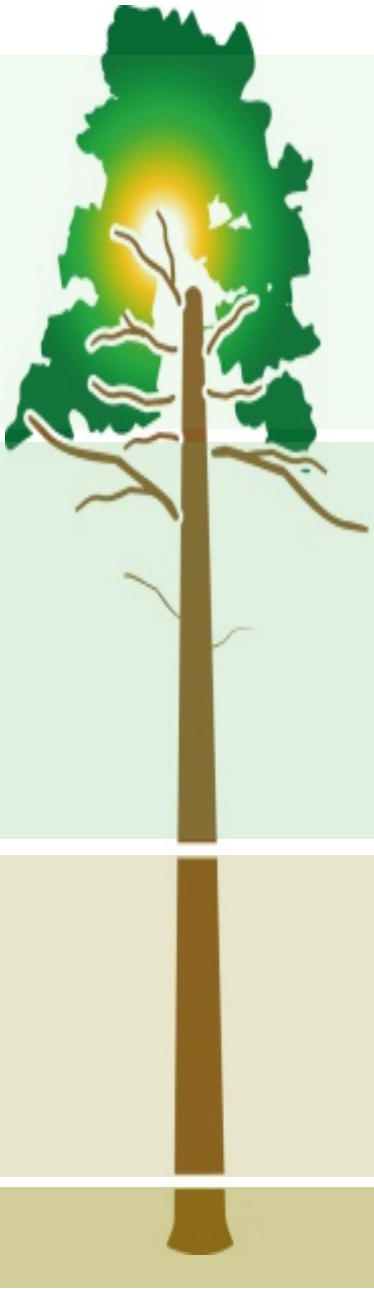
Sawlogs are the primary economic driver for commercial forestry

- Premium product for use in construction and manufacturing
- Uneconomic for biomass and excluded from Drax sourcing policy

Biomass generation uses low-grades residuals

- Forest sourced thinnings, branches, tops and other low-grade wood
- Sawdust and chips from wood processing plants
- No alternative markets – cleared from forest, often burnt at roadside or left to rot releasing CO_2 with no energy benefit or revenue for foresters

Commercial forest management is well regulated and controlled



Branches and tops

- Low-grade wood
- Low-value residual
- Used in biomass

Small dimension

- Low-grade wood
- Low-value residual
- Used in biomass

Large dimension

- Sawlogs
- Premium price, primary market
- Used in construction and manufacturing

Stumps

- Leave to support soil health

Forest Management – We Only Source From Forests That Are Well Regulated

We only choose forests that are well regulated to ensure positive people, nature and climate outcomes

Healthy managed forests delivers sustained ecological, economic and social outcomes

Active management of forests prevents risk of disease and wild-fire

- Pine beetle – Western Canada
- Wild-fires – California

Protection of sensitive sites

Sustaining and growing carbon stocks

Improved Biodiversity

Increased forest productivity

Local employment

Improved access for recreation

Voluntary International Forestry Standards

Standards created through consensus process, with audits to check compliance

FSC® – Forest Stewardship Council®

PEFC – Programme for the Endorsement of Forest Certification

SFI – Sustainable Forestry Initiative

SBP – Sustainable Biomass Program

Drax Responsible Sourcing Policy and Compliance Process

Comprehensive process of checks and audits to ensure compliance

UK regulation and Renewables Obligation (RO)

- Fully compliant with stringent standards set out in UK and EU laws
- Biomass sustainability and carbon savings verified by Ofgem

Drax sustainable biomass sourcing policy

- Beyond existing regulations, led by science, best practice and transparency

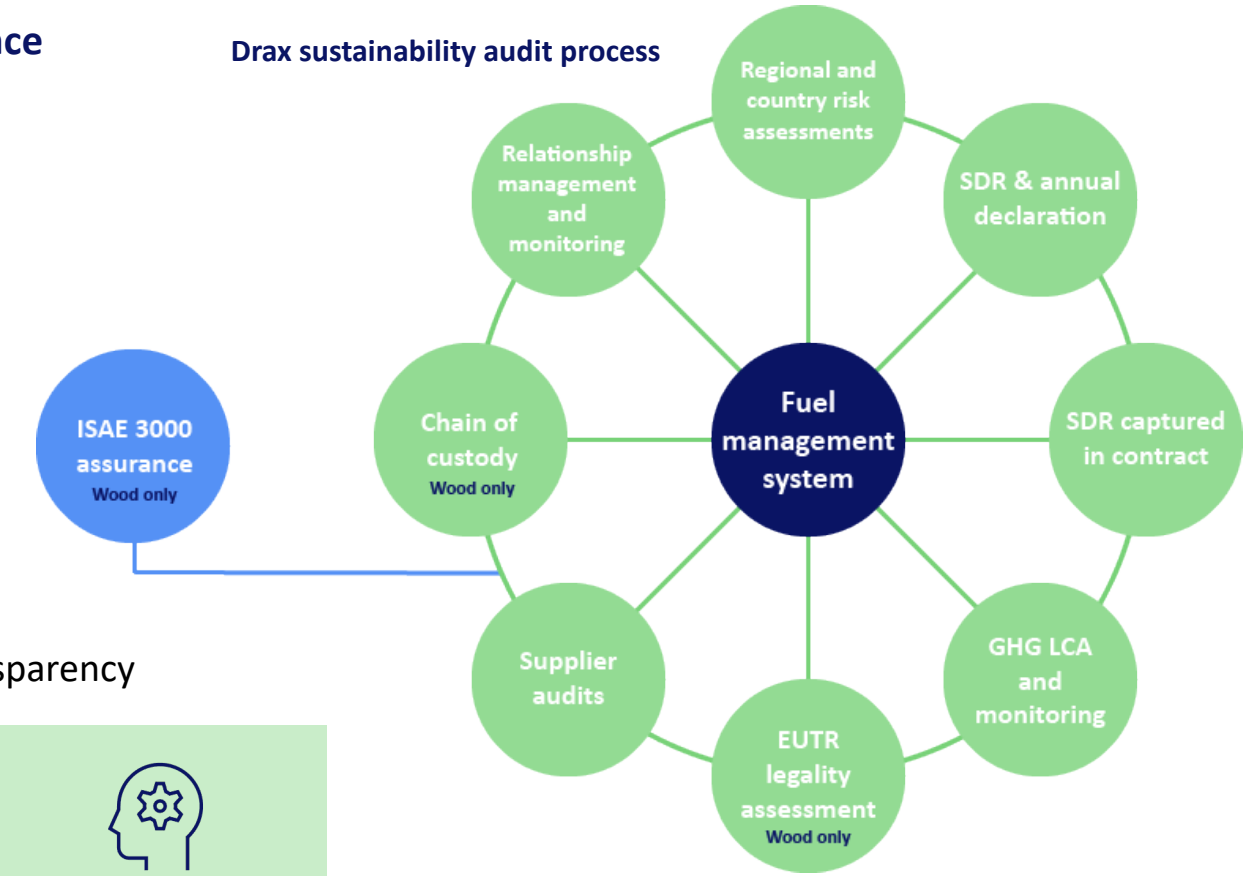
We will reduce CO_2 emissions

We will protect the natural environment

We will support people and communities

We will invest in research, outreach and intervention

Drax sustainability audit process



ISAE
International Standard on Assurance Engagements

LCA
Life-Cycle Assessment

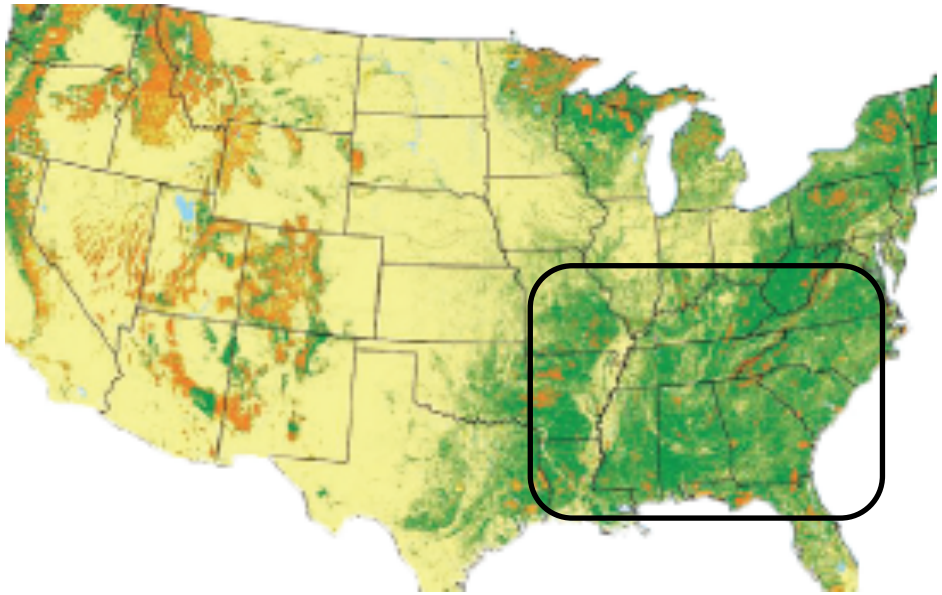
GHG
GreenHouse Gas

SDR
Sustainability Data Return

EUTR
European Union Timer Regulation

The Evidence on the Ground – US Southeast

Carbon stocks increased >90% since 1950



Region has vast resources of sustainable forestry

- Forest growing annually since 1950s
- >35% of the landmass and 25% of global industrial wood production

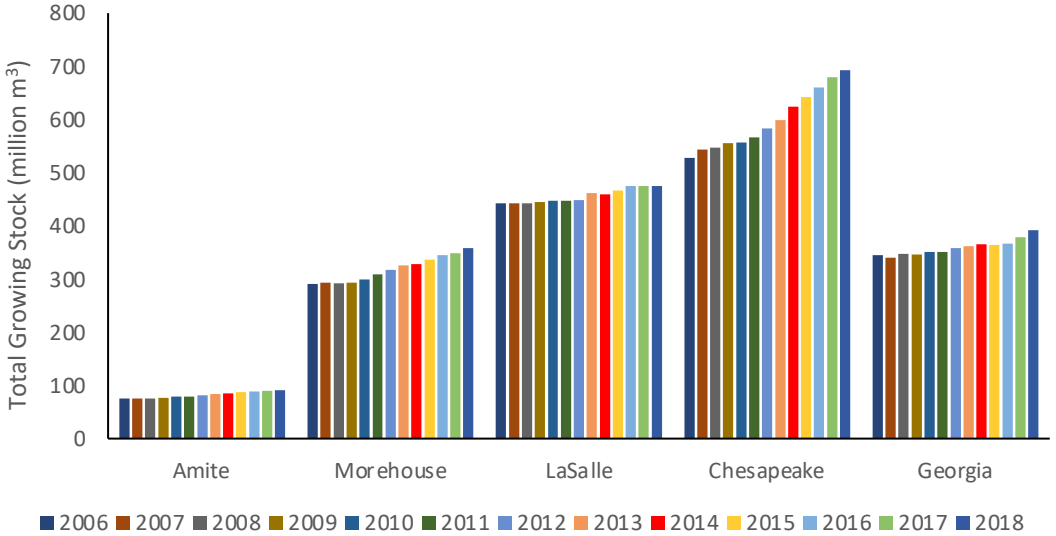
Well-established commercial forestry industry and infrastructure

- Biomass pellet industry is less than 3% of annual harvest
- Structural decline in incumbent users of low-value fibre (paper mills)

Biodiversity and carbon stocks stable or growing

- Catchment area analyses highlights growth in carbon stocks

Catchment Area Analysis



Principles for Sustainable Biomass

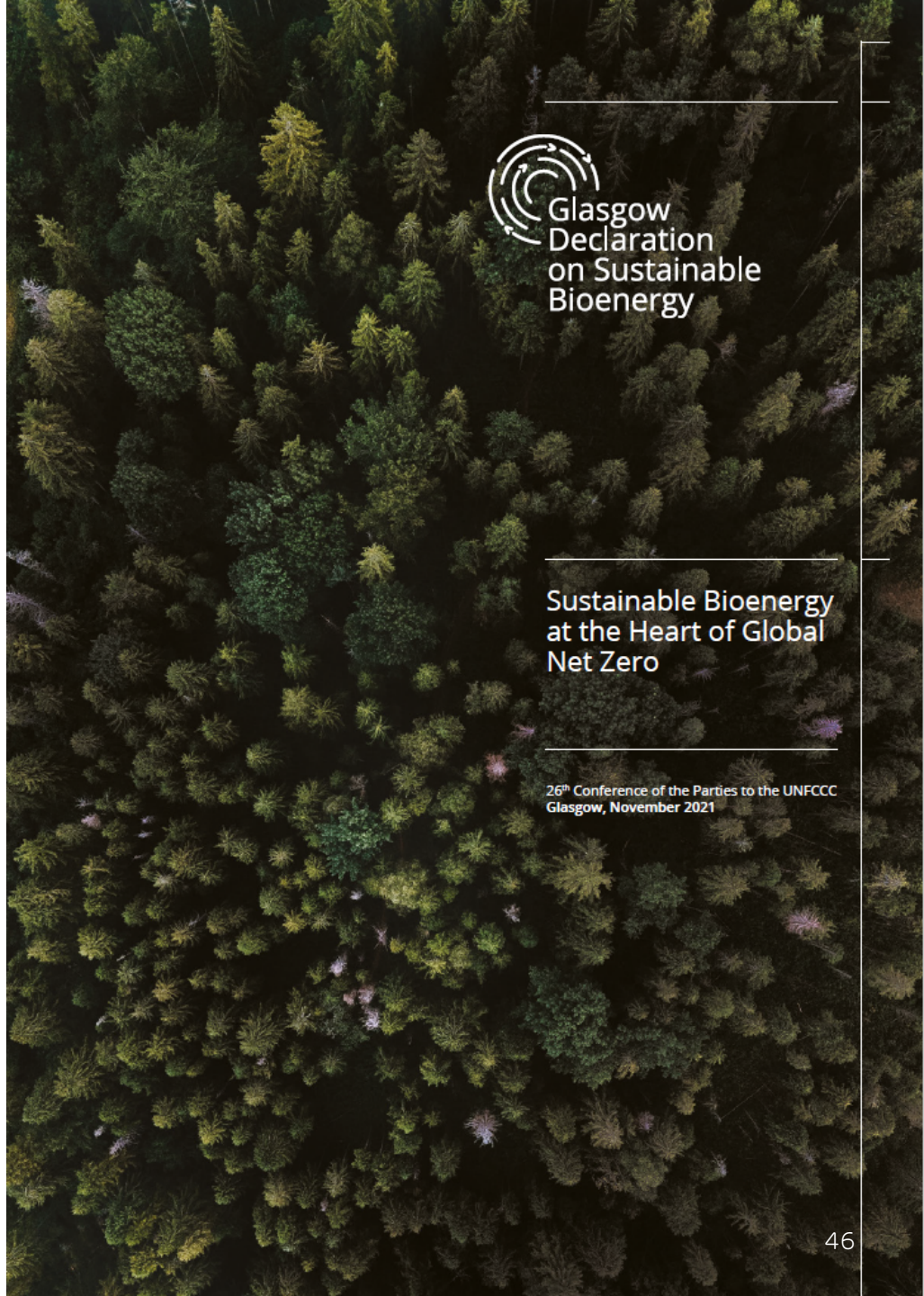
Working across the sector towards a gold standard

Glasgow Declaration on Sustainable Biomass

- 16 principles defining sustainable biomass
- >80% of sector are signatories, including Drax, Enviva, Graanul, Renewable Energy Association, US Industrial Pellet Association

Action in 2022

- Seek to develop a universal set of global principles for sustainable biomass and local standards to support UK's consultation on biomass sustainability process and Glasgow Declaration



Multiple Controls and Processes in Place to Ensure Sustainable Biomass Sourcing

The economics of forestry mean we take low-grade material

We buy from regions where forest regulations are tight

We meet UK regulations and compliance is audited

We have our own sourcing policy, backed up by our compliance procedures

We use voluntary certification schemes

We undertake post-harvesting studies, to track impact

We work with our sector to create a universal gold standard

All reviewed by an Independent Advisory Board of leading academics

Stakeholder Engagement

Ongoing activity to inform stakeholders about biomass and counter inaccurate claims

Stakeholder outreach on biomass acceptability

- NGO engagement – roundtables, bilateral meetings and events
- UK, US and Canadian governments and EU
- Media teach-in
- Investor ESG conferences and calls

Academic research

- Inform government and policy maker thinking around biomass and carbon accounting

These messages are being heard

- UK Government Net Zero Strategy, Biomass Policy Statement
- Positive biomass sentiment at COP26 (Frans Timmermans, John Kerry)
- Supportive US-based legislative package

UK Energy Crops

Innovation and partnerships

Opportunities to source a proportion of BECCS feedstock from energy crops

Partnership with the National Farmers Union to kick start a “year of engagement” with key stakeholders

Research underway to understand the opportunities and risks of domestic sourcing

- Biodiversity
- Landscape issues
- Soil carbon and health
- Land-use change
- Land management systems

People Positive

A regional development partner
- UK BECCS supply chain ambition to domestically source 80% of construction materials and services for the project

A good neighbour
- *Laptops for Learners* initiative donated 1,200 laptops with internet access to around 80 schools and colleges
- Schools programmes and community outreach – UK/US

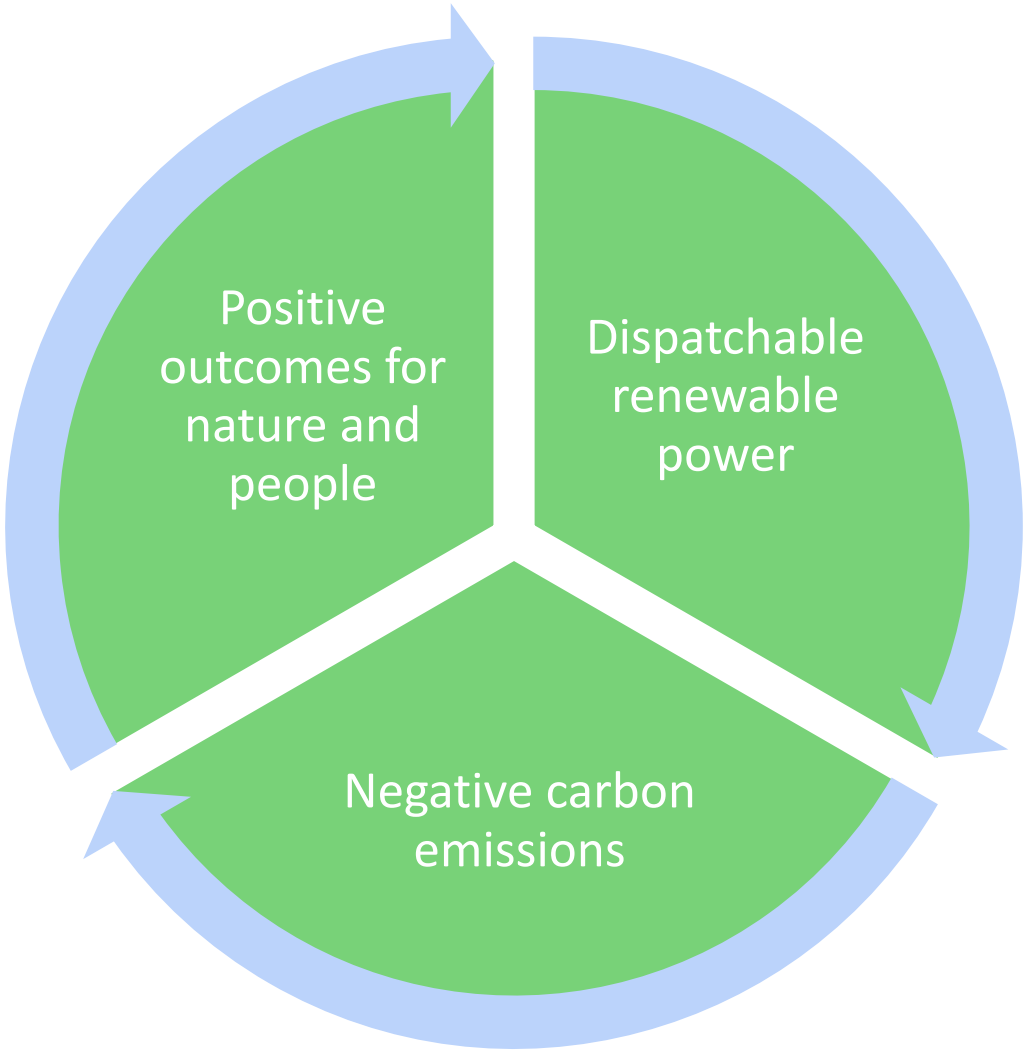
Skills and green jobs
- 5-year £180,000 partnership with Selby College for community education and retraining for the green economy

Talent pipeline
- Four-year technical apprenticeships

Diversity and inclusion
- Work experience programmes delivered virtually to remove barriers to participation

Summary

Creating a business model where financial performance, value creation and sustainability outcomes are aligned



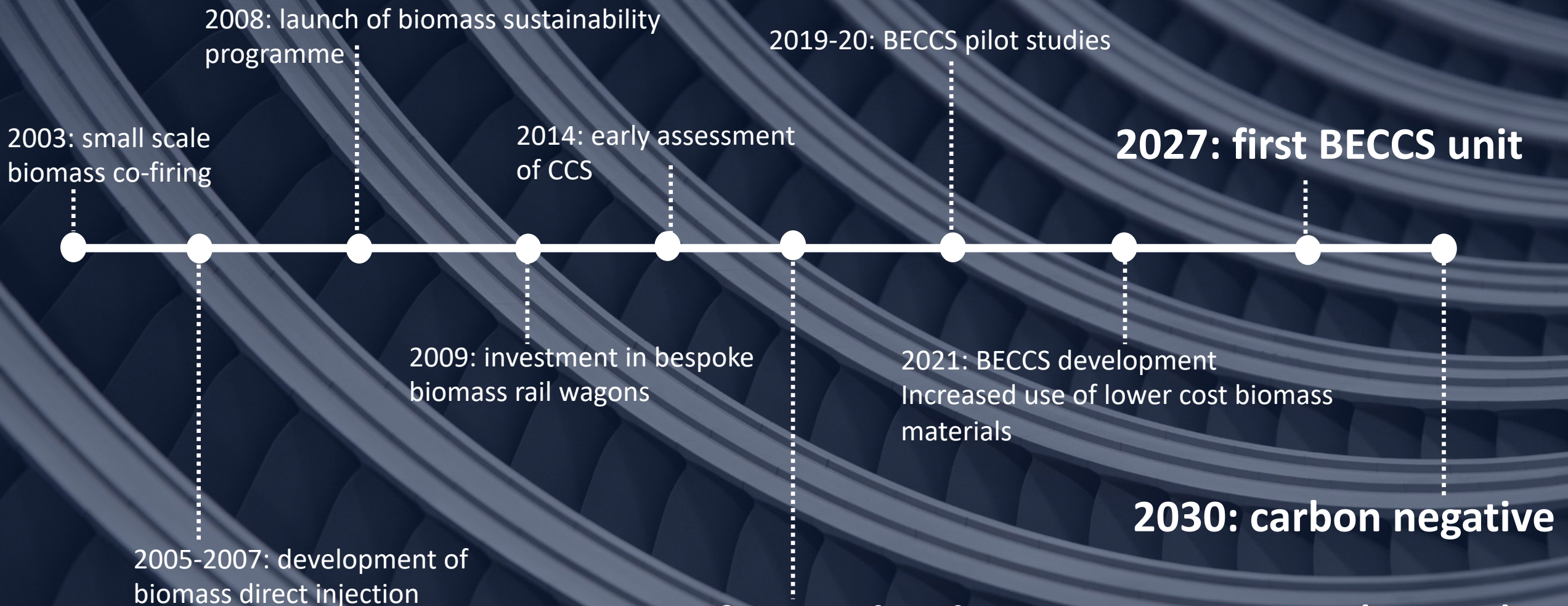
Negative Emissions

Jason Shipstone: Chief Innovation Officer

1 December 2021

A History of Biomass Innovation

Long-term investment in biomass innovation – a platform for negative emissions growth



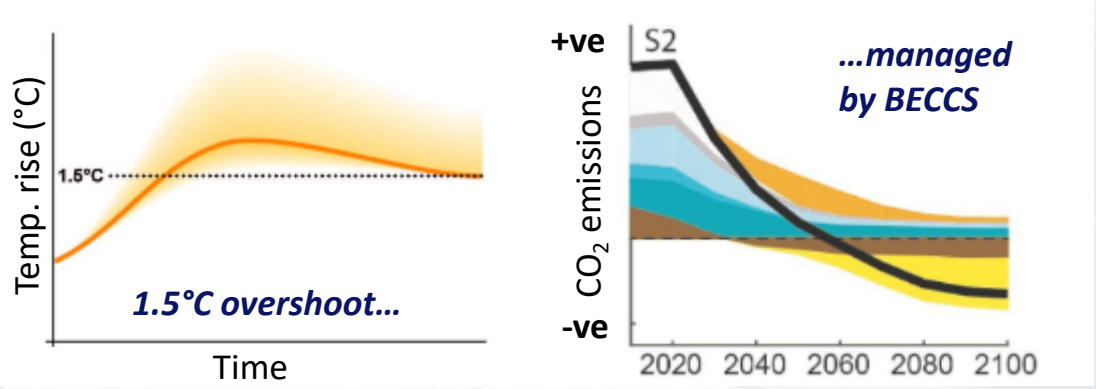
Global Need for Biomass and BECCS

Intergovernmental Panel on Climate Change analysis shows potential for 7bn tonnes of negative emissions pa from BECCS by 2030

Intergovernmental Panel on Climate Change (IPCC)

1.5°C pathway requires negative emissions

- Both nature-based solutions such as afforestation and technological solutions such as BECCS are required
- 3 to 7bn tonnes CO_2 pa from BECCS alone by 2030
- IPCC scenarios rely on significant amounts of annual net negative CO_2 emissions in the second half of the century to decline temperatures after overshoots



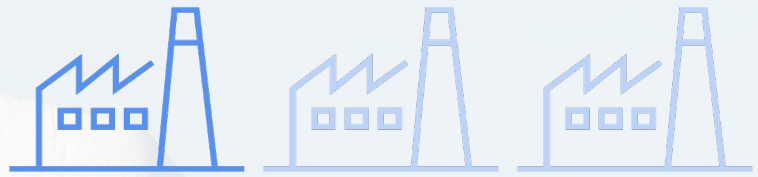
Coalition for Negative Emissions Report (CNE)

Current pipeline of projects are insufficient

- Scale of action required by 2050 will be profound
- BECCS, DACS[1] and natural climate solutions all have a role

Total sustainable global market potential for BECCS

- 2 to 4bn tonnes of negative emissions



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

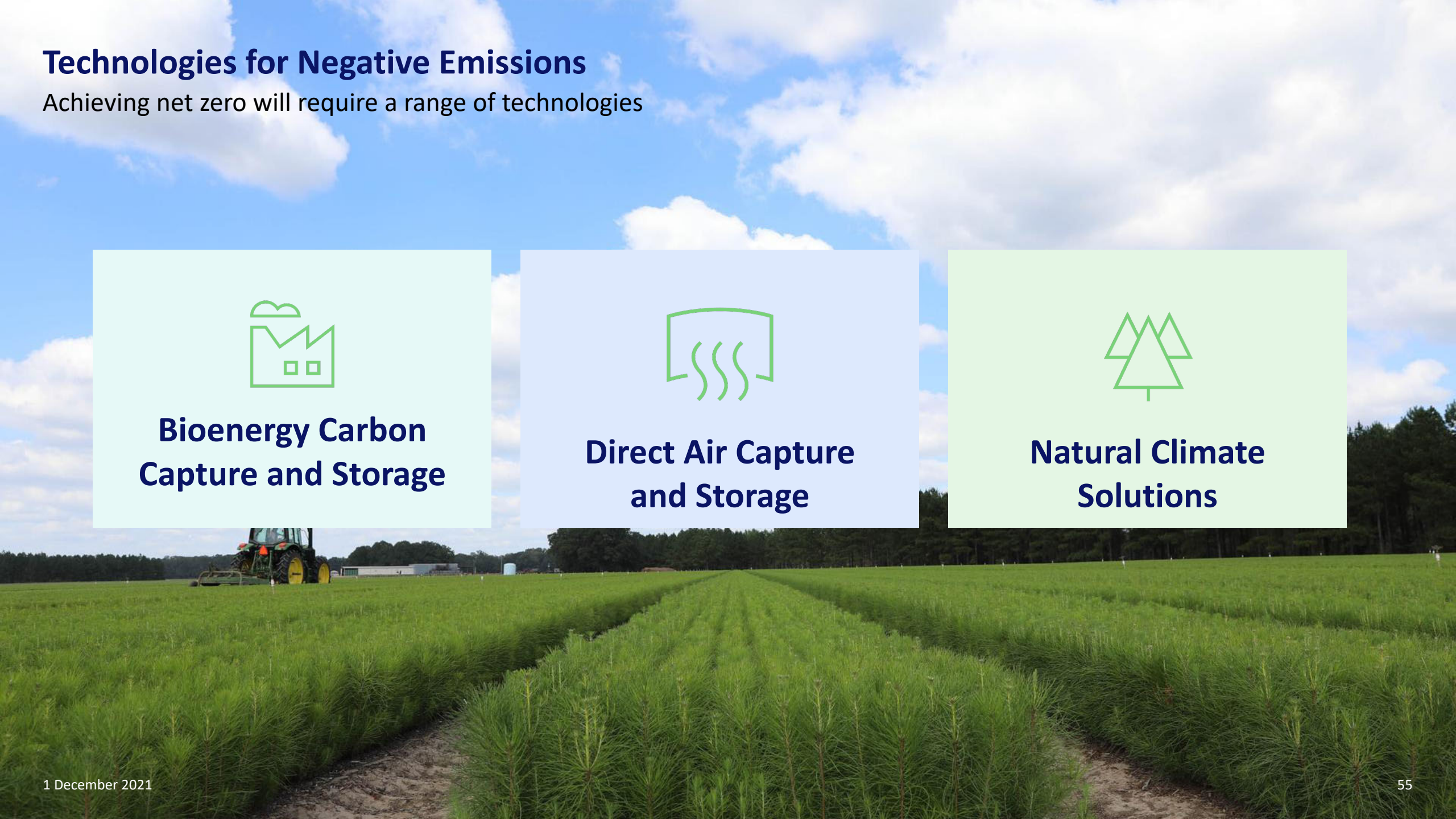
or 1 in 3 of today's global at-scale coal plants converted

coalitionfornegativeemissions.org

1. Direct Air Capture and Storage.

Technologies for Negative Emissions

Achieving net zero will require a range of technologies



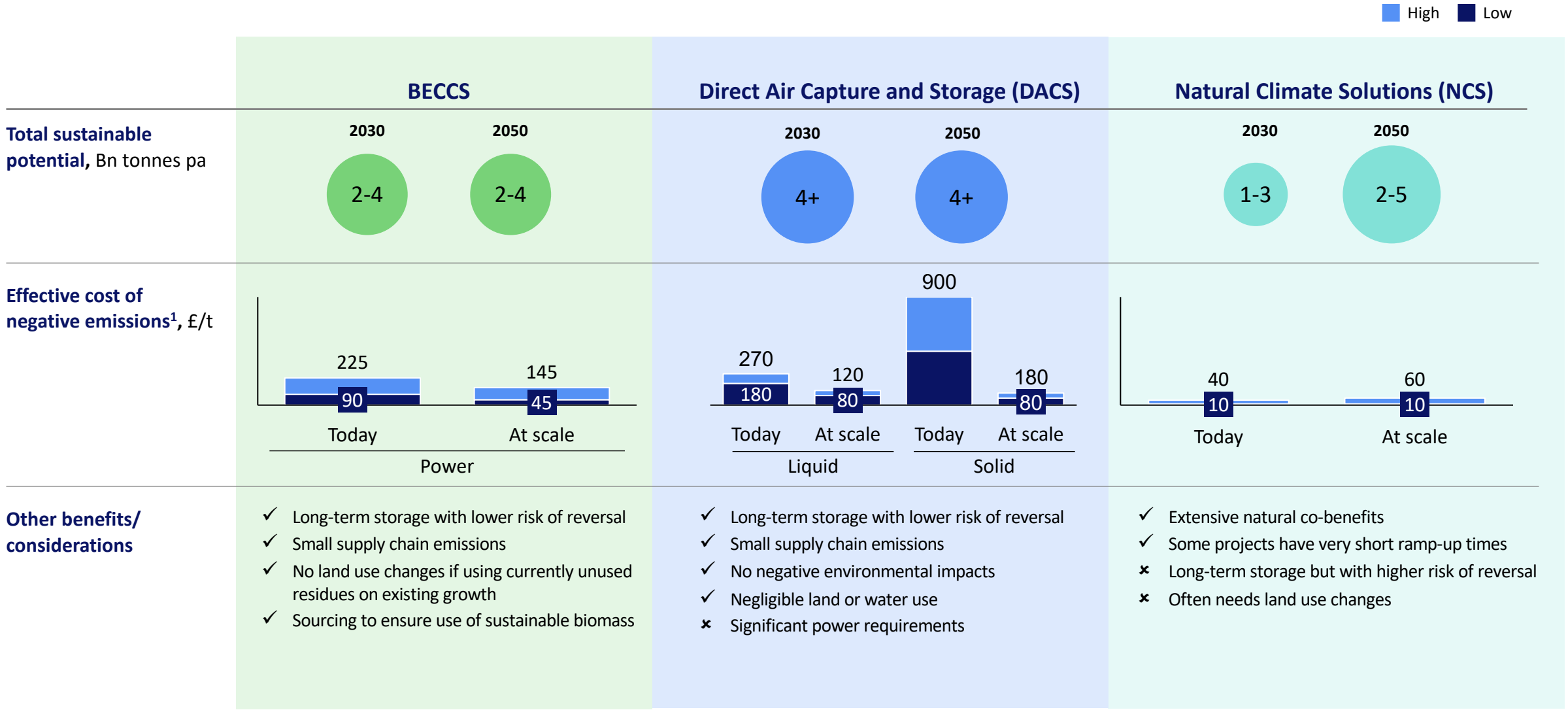
Bioenergy Carbon Capture and Storage

Direct Air Capture and Storage

Natural Climate Solutions

Technology Costs

Opportunities for scale and cost reduction



Source: McKinsey Analysis

1. Effective cost subtracts non-CO_2 outputs, e.g.., wood for certain NCS, power for BECCS on power.

Why BECCS?

Proven and innovative technical solutions

Lowest cost option for largescale greenhouse gas removal

Uniquely provides three public goods

- Negative emissions
- Renewable electricity
- Power system support

Petra Nova CCS site in Texas, USA, up to 1.4Mt of CO_2 pa

UK BECCS – Benefits

Baringa study shows value of BECCS at Drax Power Station in achieving net zero

Without early deployment of BECCS at Drax Power Station the cost to the UK of reaching net zero would be significantly higher

- £26bn of whole system cost savings in achieving net zero by early deployment of BECCS at Drax Power Station
- Urgent need to scale-up negative emissions alongside carbon reduction measures

BECCS also provides firm, renewable power

- Needed to complement intermittent renewables as the power sector decarbonises

Why BECCS is Carbon Negative

Sustainably sourced biomass is renewable and low carbon

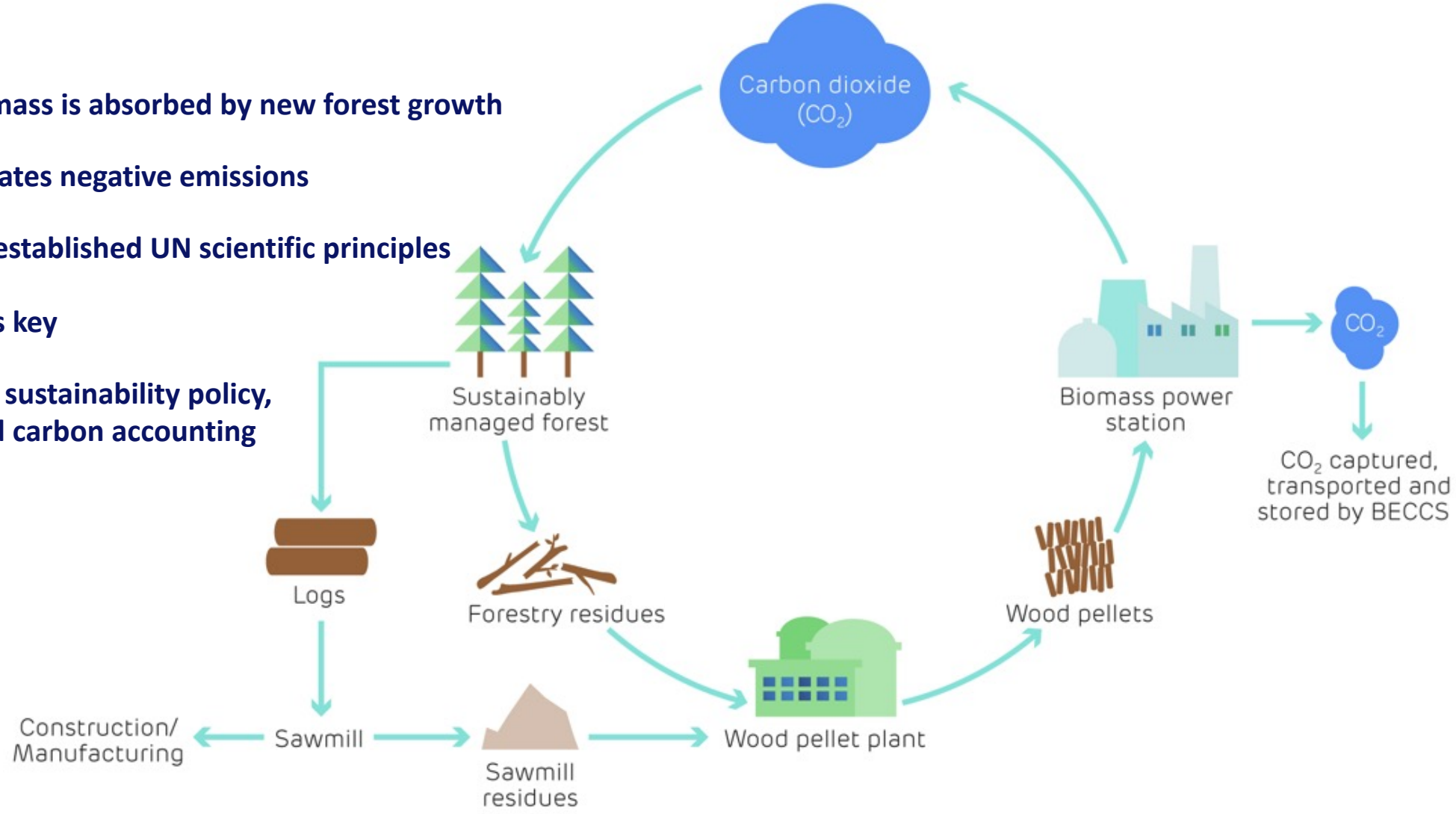
CO_2 from burning biomass is absorbed by new forest growth

Removing this CO_2 creates negative emissions

Underpinned by well-established UN scientific principles

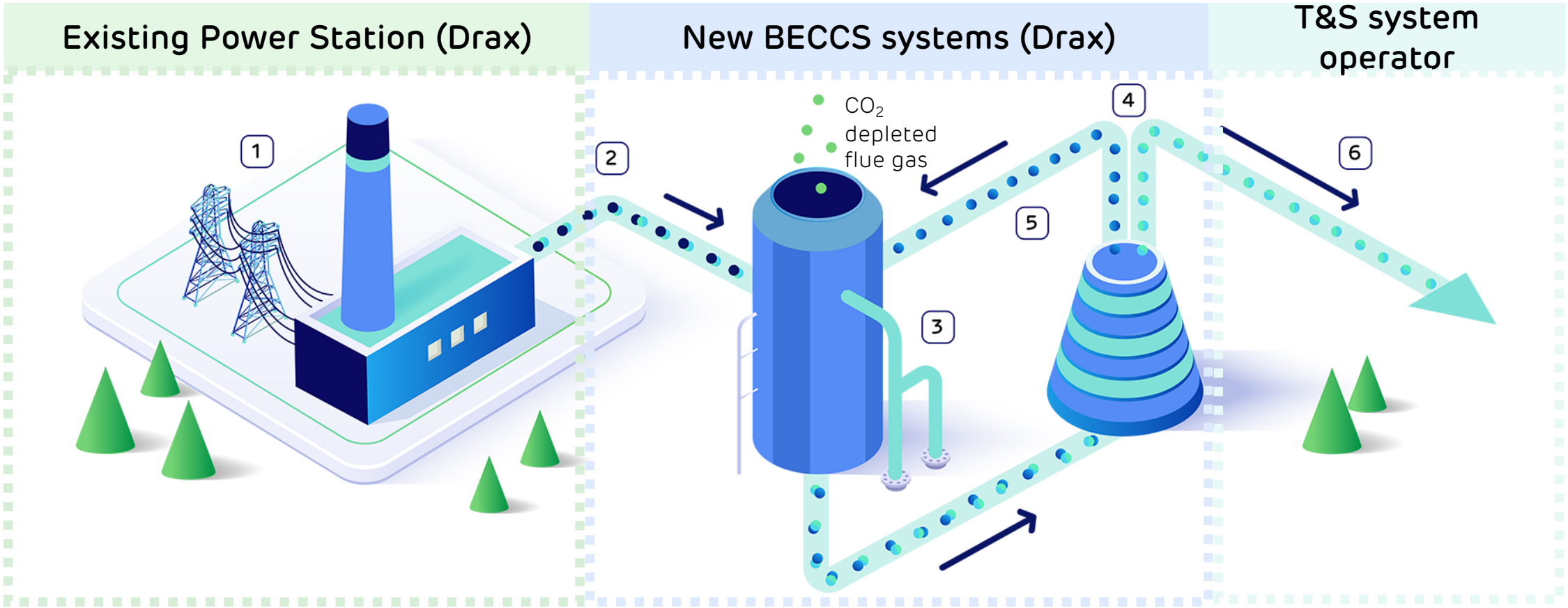
Sustainable sourcing is key

Drax has leading-edge sustainability policy, supply chain audit and carbon accounting



How BECCS Works

Post-combustion capture on existing biomass generation units and solvent treatment of CO_2



KEY

- Flue gasses
- Solvent
- CO_2

1 Flue gas containing CO_2 leaves the power production process

2 The flue gas is cooled and treated before entering an absorption tower

3 Inside the absorption tower, a chemical reaction takes place which extracts CO_2 from the flue gas. CO_2 depleted flue gas is released to the atmosphere

4 The solvent containing the CO_2 is heated in a re-boiler, which reverses the chemical reaction separating the CO_2 from the solvent

5 The solvent is then re-circulated back into the carbon capture system

6 The now pure stream of CO_2 is transported via pipeline for permanent storage under the southern North Sea

Development of Carbon Capture and Storage (CCS) and Greenhouse Gas Removal (GGR) in the UK

1 December 2021

Process for Development of CCS and GGR in UK

Selection of regional carbon capture and storage clusters and projects

Government objective

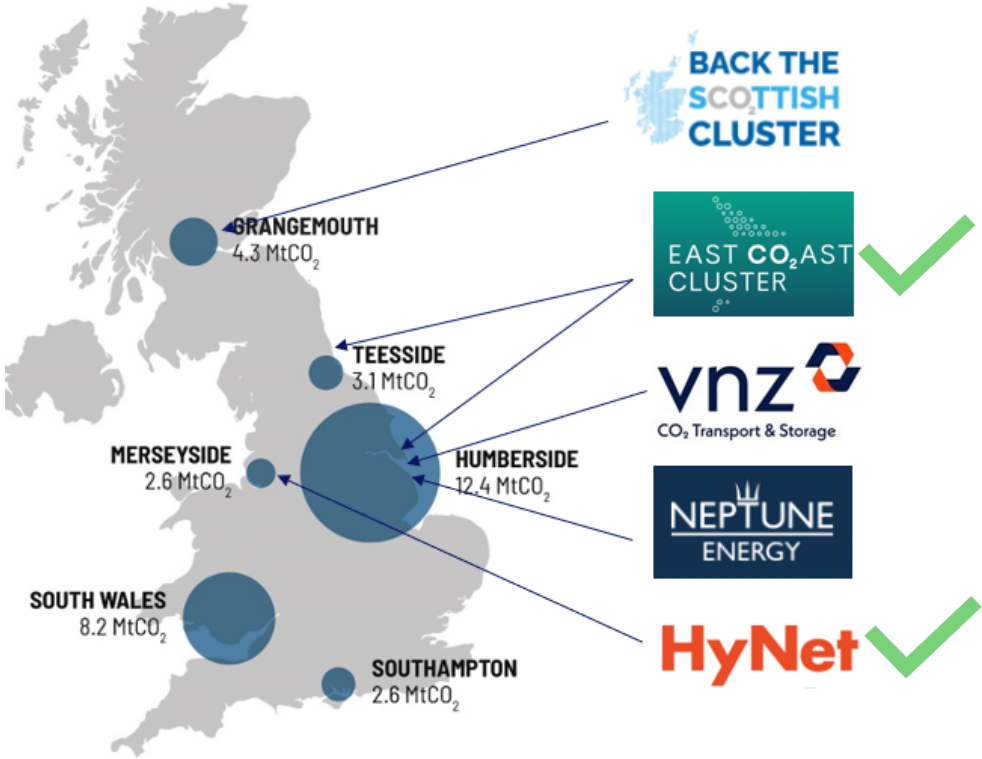
- Deploy CCS technology in all industrial clusters
- Clusters and projects sequenced into two ‘Tracks’ with Track-1 focusing on projects capable of deployment by 2027

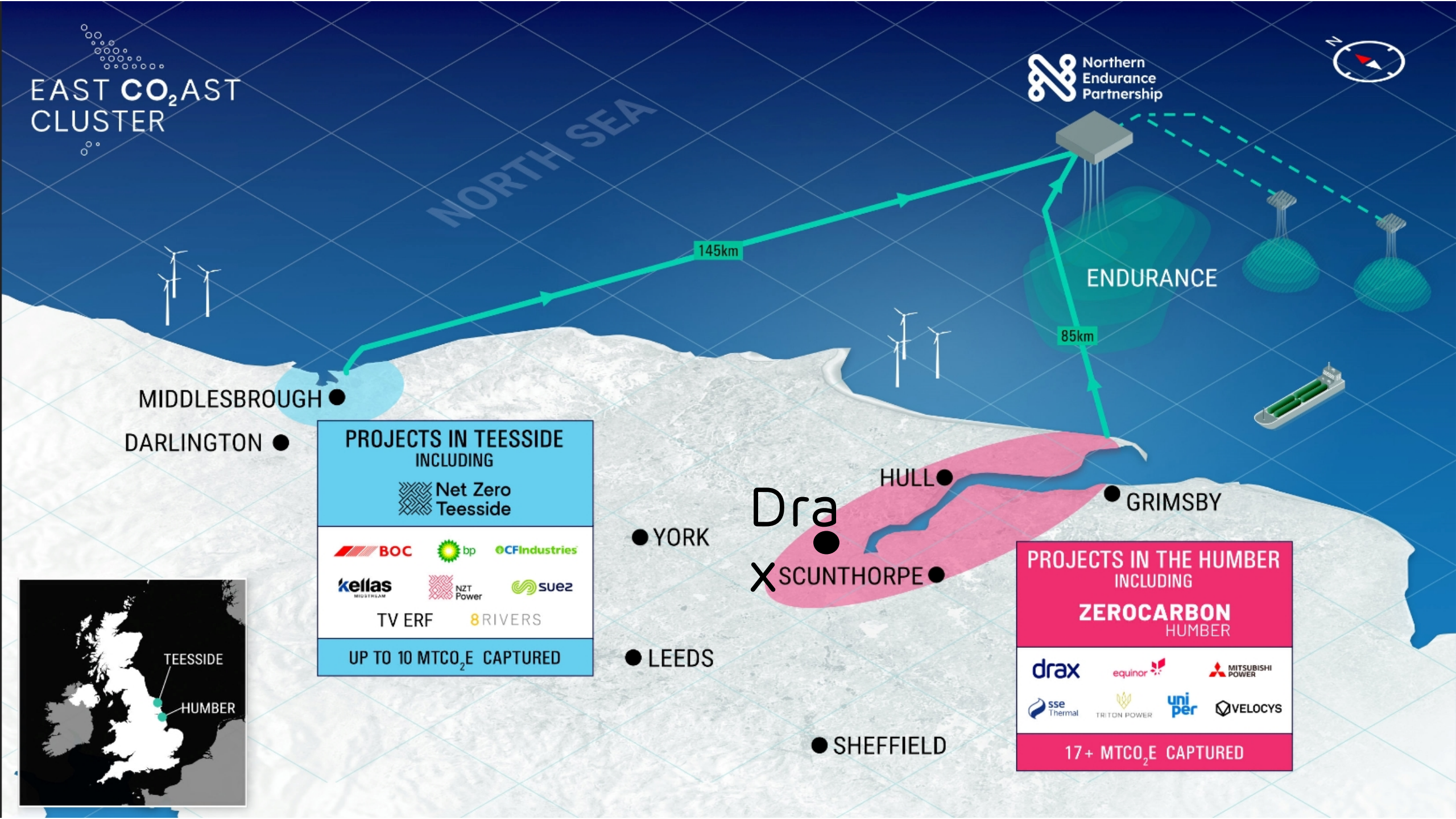
Track-1: phase-1 – cluster selection

- Process to identify at least two regional CCS clusters for delivery in the mid-2020s
- October 2021 – East Coast Cluster and HyNet confirmed as Track-1 clusters
- Track-1 status gives the East Coast Cluster first opportunity to negotiate access to £1bn CCS Infrastructure Fund and for support under government business models

Track-1: phase-2 – project selection

- Identify projects that can connect to successful Track-1 clusters
- Competitive process launched for Gas CCS, industrial CCS and hydrogen projects
  - Projects selected to progress to contract negotiations ‘from May 2022’ with a view to concluding agreements ‘from May 2023’ enabling FID in 2023/4
- Government to develop and initiate selection process for BECCS and other greenhouse gas removal projects in priority CCS clusters




EAST CO2AST CLUSTER
NORTH SEA
Northern Endurance Partnership
N
145km
ENDURANCE
85km
MIDDLESBROUGH
DARLINGTON
PROJECTS IN TEESSIDE
INCLUDING
Net Zero Teesside
BOC
bp
CFIndustries
kellas
NZT Power
sue2
TV ERF
8RIVERS
UP TO 10 MTCO2E CAPTURED
YORK
LEEDS
SHEFFIELD
HULL
GRIMSBY
SCUNTHORPE
PROJECTS IN THE HUMBER
INCLUDING
ZEROCARBON HUMBER
drax
equinor
MITSUBISHI POWER
sse Thermal
TRITON POWER
uniper
VELOCYS
17+ MTCO2E CAPTURED
TEESSIDE
HUMBER

Development of Commercial Models for BECCS

Expect model development to progress in 2022

Government study to identify a business model for a First of a Kind BECCS plant (October 2021)

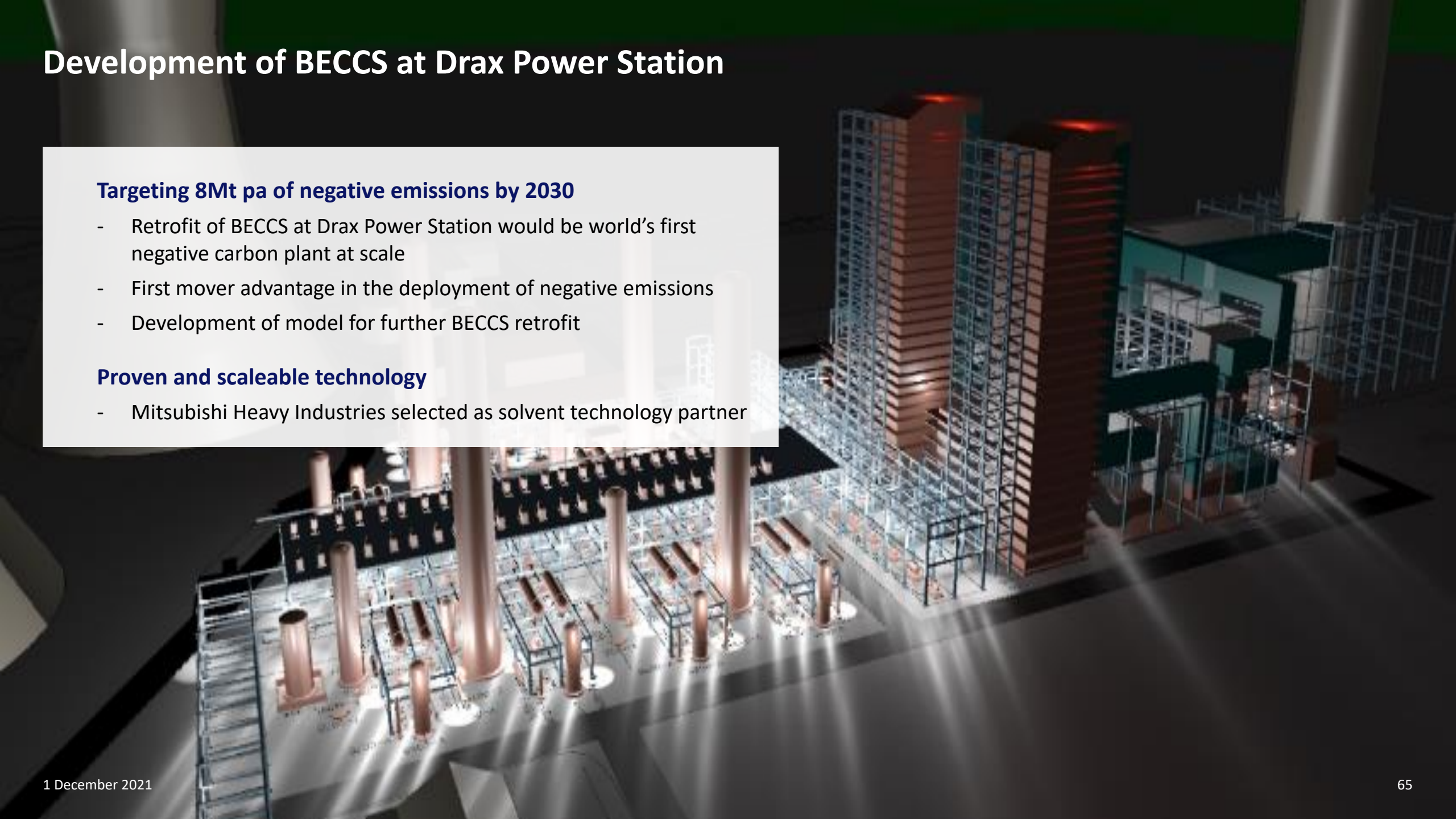
Power CfD with negative emissions payment identified as most deliverable

- Revenue certainty for power and negative emissions
- CfD mechanism deliverable and well-understood
- Similar to model used for offshore wind and biomass

Government will consult on a BECCS business model in Spring 2022

BEIS BECCS Business Model Report can be accessed here.

Development of BECCS at Drax Power Station



Targeting 8Mt pa of negative emissions by 2030

- Retrofit of BECCS at Drax Power Station would be world's first negative carbon plant at scale
- First mover advantage in the deployment of negative emissions
- Development of model for further BECCS retrofit

Proven and scaleable technology

- Mitsubishi Heavy Industries selected as solvent technology partner

Development of BECCS at Drax Power Station

Timetable for Development of BECCS at Drax Power Station

2022

- Front End Engineering and Design (FEED) study partner selected, commencement of study
- Planning application (DCO) submitted

2023

- Completion of FEED study
- Financial model and support for BECCS confirmed
- Demolition of coal-related infrastructure to create space for BECCS

2024

- Planning approval (DCO) granted
- Final investment decision
- Commence construction on first BECCS unit, three-year build programme

2027

- Completion and commissioning of first unit

2028

- Commence construction of second unit, two-year build programme

2030

- Completion and commission of second unit

Development of New-Build BECCS

Development of New-build BECCS

Targeting 4Mt pa of negative emissions from new-build BECCS outside UK by 2030

- Development of models for North America and Europe
- Evaluating biomass availability, infrastructure, demand and political conditions

Evaluating opportunities to turn first mover advantage into a leading growth position in North America where the biomass availability, infrastructure, demand and political conditions could support development of new-build BECCS

Key Considerations in New-build BECCS

Range of development opportunities, potential for significant cost reduction

Proximity to storage	- Sited on or next to CO_2 storage, reducing distance transported
Proximity to fibre	- Proximity to fibre baskets reduces transportation
Capital cost	- Higher capital cost vs. retrofit reflects construction of new power generation and BECCS units
Fibre	- Potential for lower fuel cost and wider fuel diet - Bottom-up design for biomass, not coal-to-biomass conversion
Operational efficiencies	- Efficiency through design – bottom-up design for biomass with optimised operational efficiency
Political support for CCS and biomass	- **US:** targeting carbon-free grid by 2035; net zero target by 2050; long-term strategy recognises the need for biomass and BECCS - **Canada:** coal phase-out by 2030; net zero electricity system by 2035 and federal carbon price plan to increase $15/t per year from 2023 to reach $170/t by 2030 - **EU:** bioenergy use to grow c.70% by 2050 to meet EU net zero targets; biomass power focused on coal dependent regions; BECCS encouraged through €40bn innovation fund and new negative emissions regulation

Biomass Fuel Innovation

Biomass Fuel Innovation

Progressing opportunities from lower cost sustainable biomass and expanded range of biomass materials

Over 100 fuels assessed

10 large-scale fuel trials

- 3 fuels approved for new/increased usage
- 2 new contracts signed

Up to 35% co-firing in test environment

Energy crops

- Partnership with National Farmers Union
- Opportunities for UK energy crops from marginal land for use in BECCS

Development cycle

Identification	Broad and continual feedstock identification - **new fuels, new forms & new geographies**	✓
Prioritisation	Opportunity **screening and prioritisation** based on **Drax criteria** (HSE, plant integrity, sustainability, compliance & complexity)	✓
Feasibility	Appraising viable volumes and **technical feasibility** with piloting, testing & trialling to **reduce risk**	✓
Selection	Selection of the **optimal development scheme, strategy & counterparties** – balance of risk and reward	WIP
Definition	Technical definition, securing consents and negotiation of third-party contracts to **underpin investment case & capital efficiency**	WIP
Execution	Execution dependent on scale and complexity	

Financial Update

Andy Skelton: CFO

1 December 2021

Investment Case

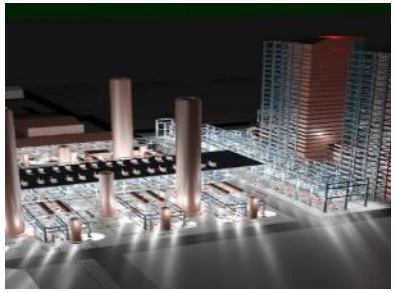
A leading UK renewable energy pioneer with attractive global growth opportunities aligned with net zero targets – sustainable biomass supply, negative emissions and dispatchable, renewable generation

Long-term global growth opportunities align with net zero strategies	- Country-level climate policies support long-term investment frameworks and demand for biomass - Investment opportunities in biomass supply, negative emissions, power generation and system support - Investment opportunities positively correlated to rising cost of carbon
Differentiated position with operations across the biomass value chain	- c.20 years experience in biomass and long-term relationships with forest products industry - Geographically diversified supply chain with opportunities for trading and optimisation - Leading the development of technologies for negative emissions
Nature positive	- Leading-edge biomass sourcing policy – full supply chain visibility to ensure positive forest outcomes - 90% reduction in generation emissions since 2012
High-quality, strategic asset base	- Strategic UK assets – 2.6GW of biomass and 0.6GW of pumped storage / hydro generation - 13 fully contracted and operational pellet plants plus developments across 3 major fibre baskets in North America
Strong operational and financial performance	- Adjusted EBITDA underpinned by long-term index-linked revenues - £1.5bn of net cash from operating activities since 2016 (>100% cash conversion) - Strong balance sheet with appropriate leverage – on track for around 2x ND/EBITDA by end of 2022
Clear capital allocation policy	- Maintain credit rating, invest in core business, pay a sustainable and growing dividend and return surplus capital to shareholders

Strategic Capital Investments

Investment characteristics

Pellet Plants	- 8Mt pa of pellet production capacity by 2030 to support UK BECCS and expansion of sales to third parties - c.3Mt of new capacity, c.£600m capital investment - Targeting low double-digit returns or higher - Investment schedule: FID on up to 1Mt of new capacity in 2022, emergent pipeline of projects 2024-2030 - Additional biomass procurement of 2-3Mt to support generation
UK BECCS	- 8Mt of negative emissions pa by 2030 - c.£2bn capital investment - Underpinned by long-term index-linked power and carbon payment schemes - Targeting at least high single-digit returns - Investment schedule: commence Front End Engineering & Design study in 2022, FID 2024, construction 2024-2030, first unit operational 2027, second unit by 2030
Cruachan II	- 600MW expansion by 2030 - c.£500m capital investment - Underpinned by long-term earnings stability via cap and floor - Targeting at least high single-digit returns - Investment schedule: FID 2024, construction 2024-2030
Other	- New-build BECCS – targeting 4Mt pa by 2030 - Investments to be underpinned by long-term high-quality earnings - Targeting at least low double-digit returns



Biomass Models

Three models for growth underpinned by biomass supply chain expansion and continued production cost reduction

Biomass supply chain

- Targeting up to 8Mt pa of production capacity
- Targeting continued cost reduction ($100/t[1])
- Balance of requirement from third-parties/other lower-cost sources

Market prices for all biomass sales

- Long-term contracted volumes to high credit-quality partners in Asia and Europe, plus UK BECCS
- Supplement with lower cost biomass sources and third-party supply for generation

Third-party sales

Negative Emissions BECCS

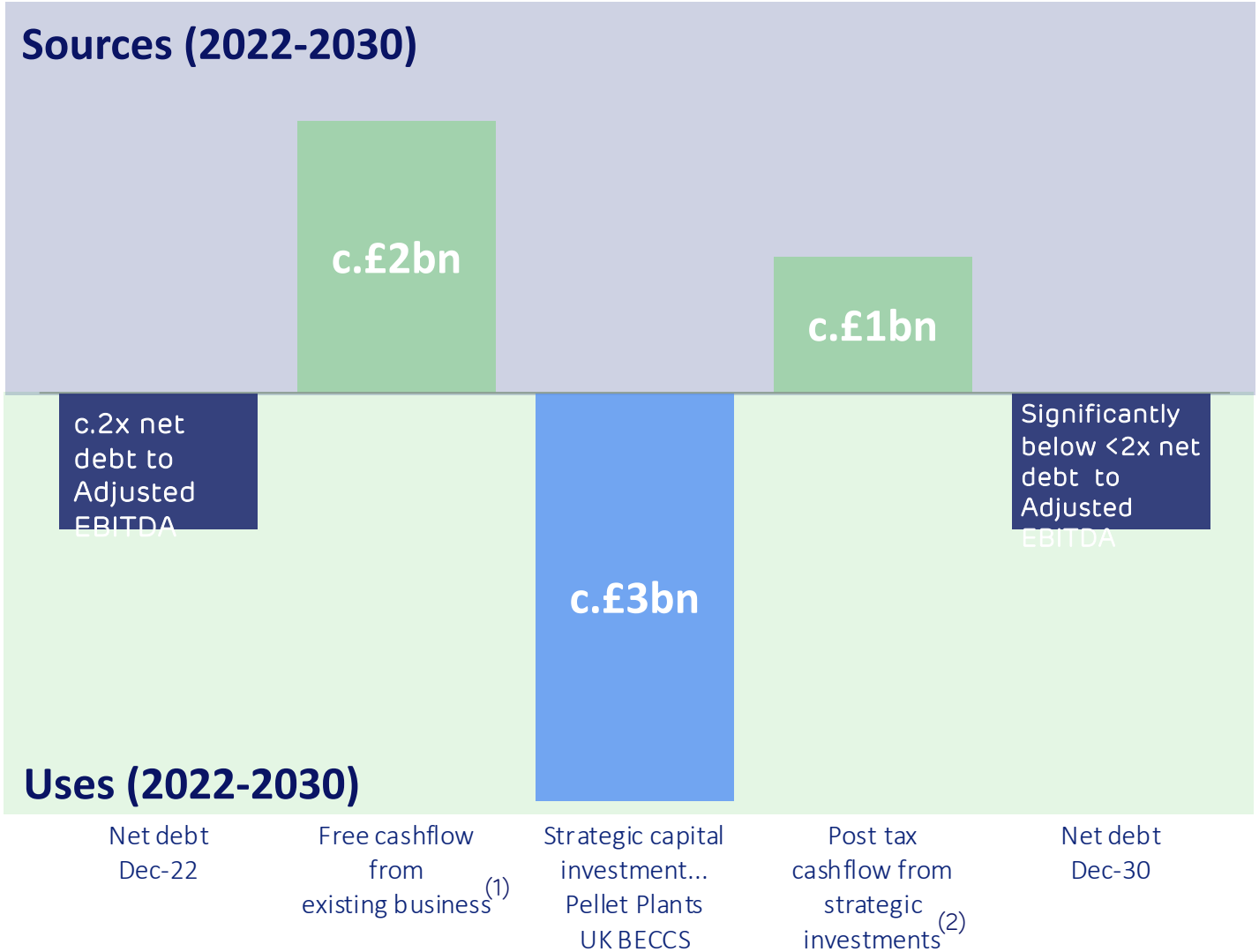
Generation

Use-or-sell options across three biomass models supports maximum value from supply chain and earnings stability

(1) Free On Board – cost of raw fibre, processing into a wood pellet, delivery to Drax port facilities in US and Canada, loading to vessel for shipment and overheads.

Investment Opportunity – Sources and Uses of Cash to 2030

Investment for growth funded by existing cash generation and EBITDA growth consistent with long-term target of 2x net debt



Strategic capital investments

- Pellet plants, UK BECCS, Cruachan II

Investment and funding

- Investments backed by long-term contracted cashflows
- No new equity, funding from cash generation and debt
- High-quality portfolio provides range of options for financing
- Peak investment period 2024-2027
- Net debt to Adjusted EBITDA significantly below <2x in 2030, with additional free cashflow available to support other investments, including new-build BECCS

Returns

- Target high single to low double-digit returns depending on risk profile and proportion of contracted earnings

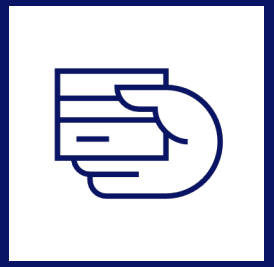
Remain committed to current dividend policy

- Average growth rate over last 5 years of 10%

1) Free cashflow from existing business = Adjusted EBITDA less interest, tax, dividend and maintenance capex.
2) Post tax cashflow from strategic investments = Adjusted EBITDA less tax and interest.

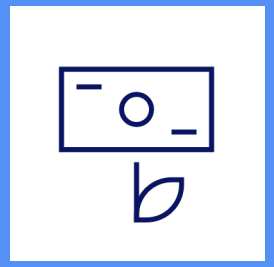
Clear Capital Allocation Policy

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

Summary

Strategic objectives closely aligned with net zero policies, providing attractive opportunities for growth

UK and international policies increasingly support the use of biomass, BECCS and the role of dispatchable generation

Pellet Production	- Targeting 4Mt pa of third-party pellet sales by 2030 - Targeting 8Mt pa of pellet production capacity by 2030
Negative Emissions	- Targeting 8Mt pa of negative emissions from UK BECCS by 2030 - Targeting 4Mt pa of negative emissions from new-build BECCS outside UK by 2030
Flexible, Renewable Power	- Long-term opportunity for biomass generation - Develop option for additional 600MW pumped storage by 2030
Underpinned by safety, sustainability and biomass cost reduction	- Continue to target biomass cost reduction – $100/t(1) by 2027 - Committed to SBTi 42% reduction in CO_2 – scope 1, 2 and 3
Strong financial plan	- Investment for growth supported by strong cash generation and <2x net debt in 2030 - Investment in resources to deliver strategy and purpose - Remain committed to sustainable and growing dividend

(1) Free On Board – cost of raw fibre, processing into a wood pellet, delivery to Drax port facilities in US and Canada, loading to vessel for shipment and overheads.

Q&A

1 December 2021

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Appendix 1: Summary of 2022 Milestones

Activity	2022 Milestones
Biomass pellet production	- Expect to take final investment decision on 0.5-1Mt of new capacity
Biomass pellet sales	- Establishment of Tokyo field office - Establishment of European business development - Expansion of international affairs capability
UK BECCS	- Selection of engineering/construction partner and commencement of detailed design study - Planning application (DCO) submitted - UK Government to run competitive process for Gas CCS, industrial CCS and hydrogen projects - UK Government to develop and initiate selection process for BECCS and other greenhouse gas removal projects in priority CCS clusters - Government to publish Bioenergy Strategy Review H2 2022
International BECCS	- Program of government engagement - Site location filtering - Progress discussions on renewable power and negative emission packages - Commence detailed CO_2 storage evaluation program - Refine technical concepts
Pumped Storage	- Submission of Cruachan II planning application to Scottish Government - BEIS consult on investment support mechanism - Connection agreement secured from National Grid
Biomass cost reduction	- Continued reduction in pellet production costs - Approve new fuels, expanding fuel mix to deliver >100kt of lower cost sustainable biomass

Appendix 2: Pellet Plant Economics and Opportunities

Multi-stage immature self-supply chain provides significant opportunities for savings

Continuous innovation, proximity to fibre and logistics, increased capacity, operational synergies, lower cost fibres and other biomass materials

PELLET PRODUCTION

GENERATION

Forest | Harvesting | Transport to pellet plant | Processing | Transport to port | Port storage and handling | Ocean freight | Port storage and handling | Transport to power station | Generation

40% delivered fibre

Forestry & Harvesting

- Sawmill co-location
- Improvements in fibre mix
- Use of other lower cost biomass

40% processed pellets to port

Operations

- Capacity expansions
- Lean processes, manufacturing excellence and continual improvement across all operational areas of the supply chain
- Satellite plants
- Design and automation
- Proximity to fibre and logistics
- Secondary uses of biomass

20% transport to customer

Ocean freight and transfer

- Optimise freight to minimise requirements
- Services Asian demand from Western Canada and Europe from US Gulf

Appendix 3: US$/t FOB[1] to £/MWh Generation – Cost Mapping

FOB[1] (US$/t)	Illustrative ocean freight and UK port and rail (US$/t)	Fully Delivered Cost to Drax Power Station (US$/t)	Fully Delivered Cost to Drax Power Station £/MWh[1/2/3]
180	40	220	80
160	40	200	73
140	40	180	65
120	40	160	58
100	**40**	**140**	**51**

1) Free On Board – cost of raw fibre, processing into a wood pellet, delivery to Drax port facilities in US and Canada, loading to vessel for shipment and overheads.
2) Illustrative 17.5GJ/t.
3) Illustrative FX rate of 1.45.
4) Illustrative thermal efficiency of 39%.

Appendix 4: Drax Pellet Production Portfolio

Plant	Location	Status	Commissioning Date	Capacity (Mt pa)	% ownership
Williams Lake	BC, Canada	Operational	2004	0.2	100%
Houston	BC, Canada	Operational	2006	0.2	30%
Armstrong	BC, Canada	Operational	2007	0.1	100%
Meadowbank	BC, Canada	Operational	2008	0.2	100%
Burns Lake	BC, Canada	Operational	2011	0.4	100%
Lavington	BC, Canada	Operational	2015	0.3	75%
Smithers	BC, Canada	Operational	2018	0.1	70%
Entwistle	Alberta, Canada	Operational	2018	0.4	100%
Aliceville	Alabama, USA	Operational	2018	0.3	90%
High Level	Alberta, Canada	Operational	2020	0.2	50%
Amite	Mississippi, USA	Operational	2015	0.5	100%
Morehouse	Louisiana, USA	Operational	2015	0.6	100%
LaSalle	Louisiana, USA	Operational	2018/21	0.6	100%
Total Current Capacity				**4.2**	**90%**
Demopolis	Alabama, USA	New plant	Commissioning	0.4	90%
Leola satellite plant	Arkansas, USA	New plant	Commissioning	0.04	100%
2 new satellite plants	Arkansas, USA	New plants	Est. 2022	0.1	100%
LaSalle expansion	Louisiana, USA	Expansion	Est.2022	0.1	100%
Capacity Post Development				**4.8**	**90%**

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