

Drax Group Capital Markets Day

May 2023



drax



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

drax

Our Purpose

Enabling a zero carbon, lower cost energy future

Our People

Are valued members of a winning team with a worthwhile mission

Our Ambition

To be a carbon negative company by 2030

Carbon Removals

Objective 1: to be a global leader in carbon removals

Pellet Production

Objective 2: to be a global leader in sustainable biomass pellets

Dispatchable, Renewable Power

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

Underpinned by options over the use of sustainable biomass across all areas of operation

Fully integrated biomass supply chain provides opportunities to optimise and create value in multiple markets

A sustainable long-term business model leveraging on our biomass expertise and objectives aligned with climate solutions, net zero and energy security

Strategic asset base closely aligned with system needs

- Dispatchable, renewable electricity
- Security of supply
- A route to carbon removals

Proven financial and operational performance

- A track record of generating strong free cash flows from our strategic asset base

Attractive portfolio of investments opportunities aligned with system needs

- BECCS, biomass supply chain and dispatchable generation

Capital allocation policy

- A policy which supports investment in the existing asset base, growth and additional returns to shareholders



Drax is UK's largest source of renewable energy by output

- 4% of total annual power generation
- 11% of total annual renewable generation
- Up to 70% of in-day peak renewable generation

Drax is a UK leader in dispatchable generation – 3.1GW of capacity

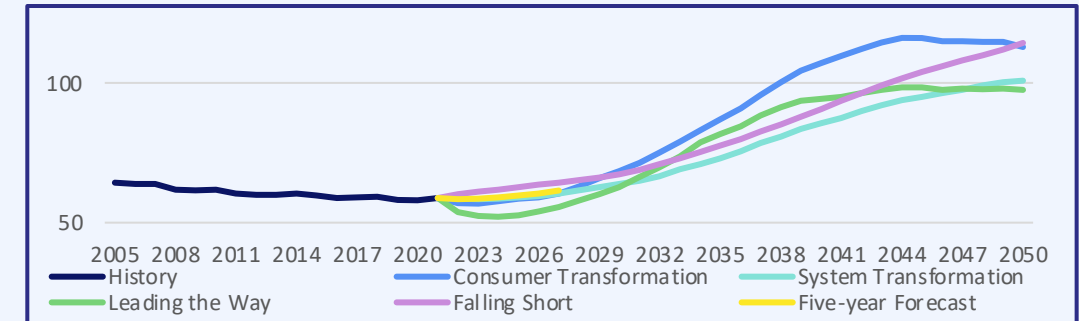
- Growth in wind, solar and nuclear = intermittency, inflexibility and volatility = greater role for dispatchable assets = opportunity for value

Drax security of supply – underpinned by integrated supply chain

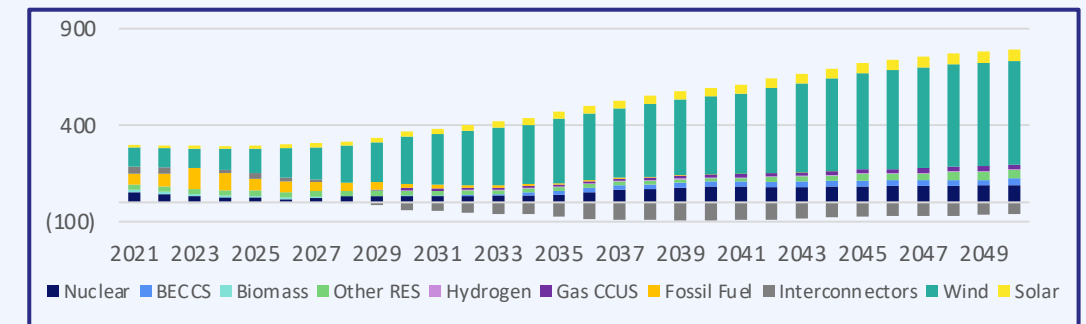
Multiple earnings opportunities

- Forward power sales up to two years in advance
- Index-linked renewable incentive schemes
- System support services via power markets, balancing mechanism and ancillary services
- Capacity payments

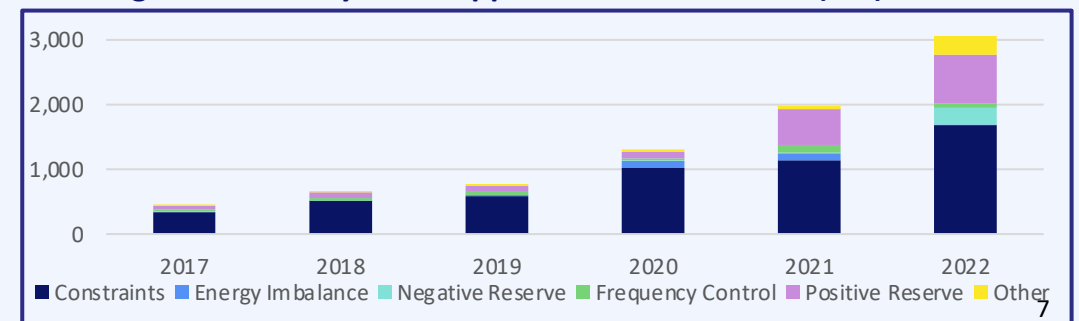
Significant increase in demand – peaks (TWh)



Increase in intermittent and inflexible generation capacity (TWh)



Growing value from system support services – BSUoS (£m)



Sources: National Grid Future Energy Scenarios and system support service data

As a producer, user and supplier of biomass, Drax has multiple sales channels for the biomass in its integrated supply chain, leading to value creation, growth and innovation opportunities, protecting margins and maximising value from biomass

Growing global demand for sustainable biomass and new markets

- Markets today – generation and heating
- Future growth from BECCS and other industrial processes

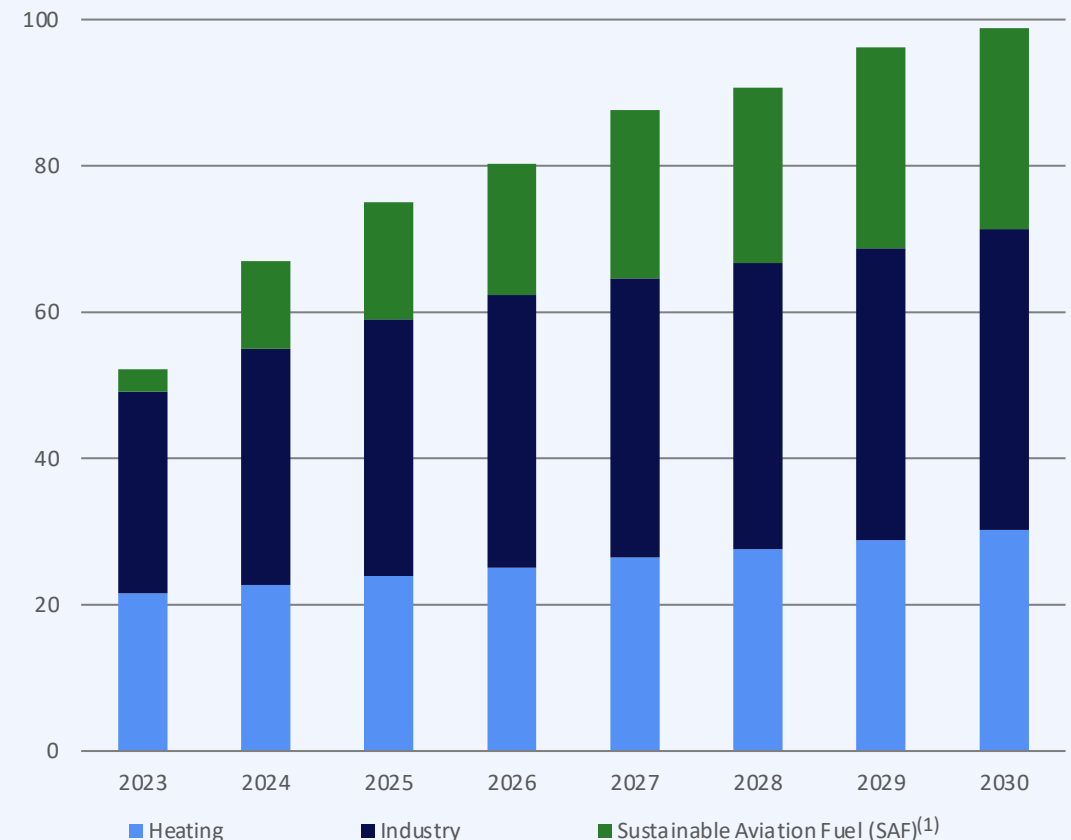
Use-or-sell options across three biomass models

- Sales to third parties
- Own-use power generation
- Own-use BECCS

World's second largest producer of biomass

- 5Mt of capacity across 18 operational and development plants with access to 5 deep-water ports and 4 major fibre baskets
- 20 years of biomass innovation and expertise
- Expertise in biomass sourcing, power generation and supply chain operations
- Security of supply – a proven and reliable supply chain
- Backed up by own-use demand in generation

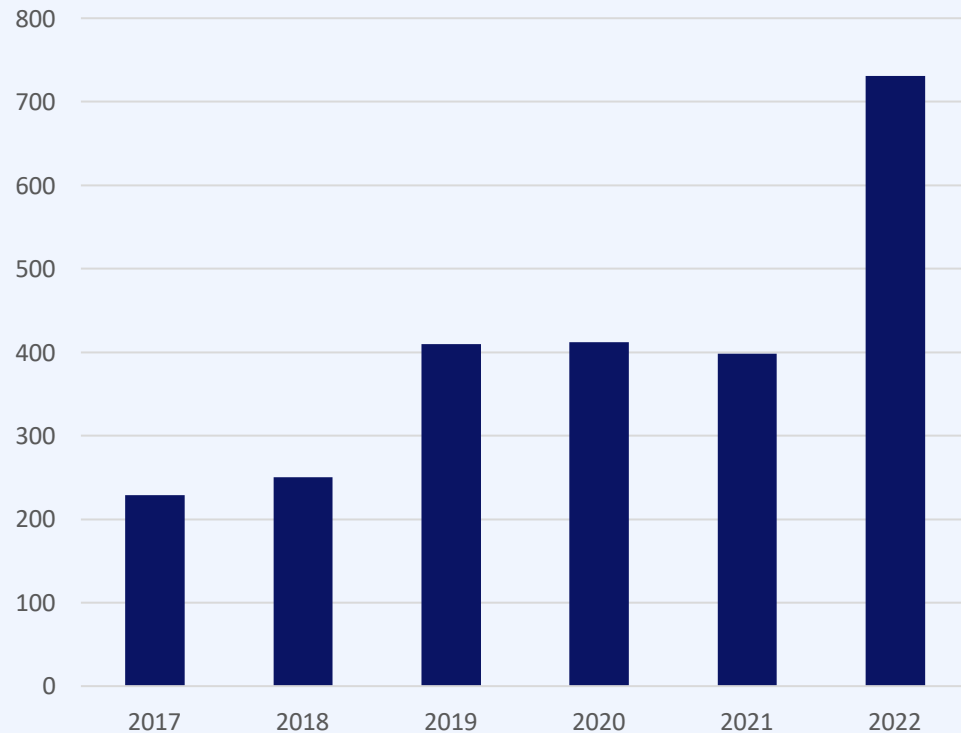
Potential doubling of growth in global biomass markets through 2030 (Mt)



Sources: Hawkins Wright (Q1 2023), Future Metrics (Aug 2022), Argus (April 2023) / Drax assumption

1) Assumes c.10% of SAF production from gasification of biomass.

Adjusted EBITDA⁽¹⁾ Growth (£m)



11% average annual increase in dividend per share since 2017 (p/share)



£2.3bn of cash generated from operations 2017 – 2022

c.£600m of returns to shareholders 2017 – 2023 – dividends and buybacks⁽²⁾

1) Earnings before interest, tax, depreciation, amortisation, excluding the impact of exceptional items and certain remeasurements. Excludes the Electricity Generator Levy.

2) Includes £150 million share buyback announced April 2023.

Strategic investments aligned with climate solutions, net zero and energy security

Attractive opportunities for long-term growth and positive climate, nature and people outcomes

Carbon removals	Ambition for >20Mt of carbon removals via BECCS – 14Mt pa by 2030 • 2 sites selected and moving to option in US South – targeting c.6Mt by 2030 • Evaluating 9 additional sites in US for greenfield and brownfield BECCS • Development of option for CCS on a pellet plant – targeting FID in 2024/25, commissioning in 2026 • MoUs agreed for sale of >2Mt • 8Mt of carbon removals at Drax Power Station by 2030
Biomass pellet supply	Targeting 8Mt of production capacity by 2030 • c.5Mt of current production capacity • 18 fully operational pellet plants plus developments across three major fibre baskets and five ports • c.2.5Mt of new capacity, plus 0.6Mt in development • Continue to target 4Mt of sales to third parties by 2030
Dispatchable, renewable generation	Increased value from pumped storage and option for 600MW expansion of Cruachan by 2030 • Multiple earnings sources aligned with system needs • Underpinned by long-term earnings stability via a cap and floor mechanism Construction of 3 new 299MW Open Cycle Gas Turbine plants at sites in England and Wales

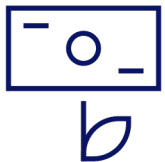
Implemented in 2017, designed to support strategy



1. Maintain credit rating



2. Invest in core business



3. Sustainable and growing dividend



4. Return surplus capital beyond investment requirements

A global leader in carbon removals

Global net zero and 1.5°C strategies will require carbon removal technologies
BECCS, DACS and afforestation

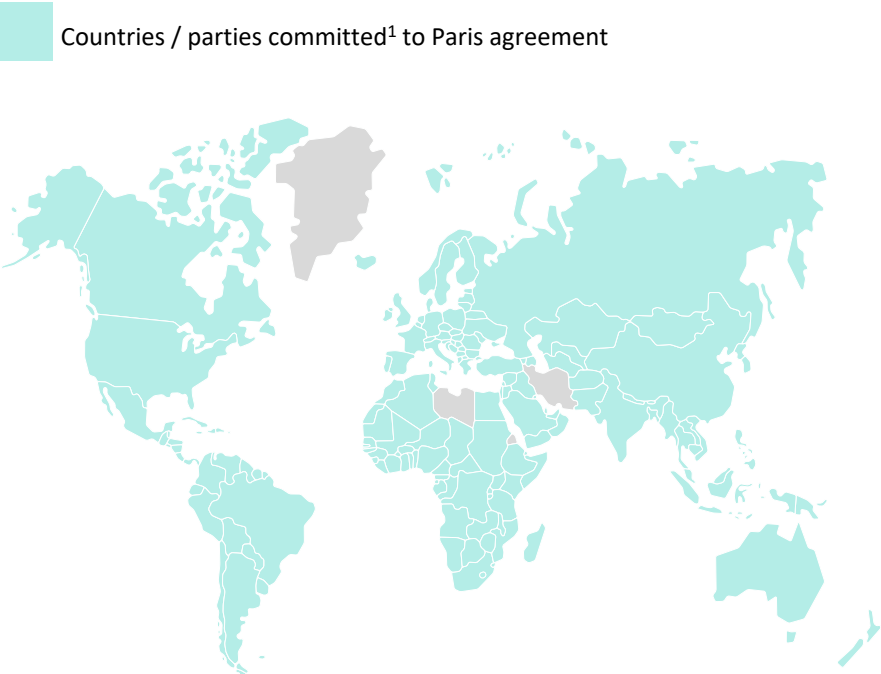
Drax is developing a pipeline of project options in North America and the UK to provide long-term, large-scale carbon removals and create attractive investment opportunities for the Group

Ambition for >20Mt of carbon removals via BECCS

US Inflation Reduction Act is creating an enlarged investment opportunity for BECCS



Over 190 countries have confirmed their commitment to a 1.5°C pathway, to avoid the disproportionate impacts of a 2°C world



Examples of impact of 2°C vs. 1.5°C



56%
higher sea
level rise



50%
decrease in
crop yields



Probability of permanent irreversible warming
due to risk of collapse of Greenland Glacier and loss of Arctic summer sea ice



Every extra bit of warming matters, especially since warming of 1.5°C or higher increases the risk associated with long-lasting or irreversible changes, such as the loss of some ecosystems

Hans-Otto Pörtner
Co-Chair of IPCC Working Group II



Limiting global warming to 1.5°C compared with 2°C would reduce challenging impacts on ecosystems, human health and well-being, making it easier to achieve the United Nations Sustainable Development Goals

Priyadarshi Shukla
Co-Chair of IPCC Working Group III

1) Countries that have either ratified, accepted, or acceded the Paris agreement (April 2022).

Source: UNFCCC, UNTC, IPCC, Coalition for Negative Emissions

Reputable scientific and industry groups agree that significant levels of removals are required



All pathways that limit warming to 1.5°C or 2°C involve substantial levels of carbon removal (Carbon Dioxide Removal – CDR) between 2020 and 2100, ranging from **450 to 1,100bn tonnes of CO₂**



Urgent and ambitious action is needed for deep GHG emissions cuts

CDR will be necessary to achieve net-negative CO₂ emissions for mitigating climate change. **Globally between 0.5-9.5bn tonnes of CDRs via BECCS will be required**



Even with rapid investment in emission reductions, the **United States could need to remove about 2bn tonnes of CO₂ per year by midcentury to reach net zero**



10–20bn tonnes of CO₂ removals needed every year if we are to keep warming below Paris Agreement thresholds



Sustainable Development Scenario **requires BECCS and DAC to remove c.3bn tonnes of CO₂ in 2070**



Inflation Reduction Act (IRA) and Bipartisan Infrastructure Bill – \$369bn funding package for climate and green energy policies

- 45Q tax credit valued at \$85/t of CO₂ captured through BECCS
- Other tax credits aimed at renewable power generation, Sustainable Aviation Fuel (SAF) and hydrogen
- \$40bn loan fund for projects which utilise innovative technology to reduce, avoid or sequester carbon
- \$26bn Greenhouse Gas Reduction fund
- \$3.5bn DAC Hub funding
- \$140m – competitive purchasing programme for carbon removals
- Local incentives for clean energy technologies – including Louisiana, Massachusetts and California



C\$80bn in clean technology over next 10 years, including C\$25bn for clean electricity investment

- Clean Electricity Investment tax credit – 15% refundable tax credit for eligible investments
- 50% for BECCS investment tax credit for capital invested in CCUS projects
- Carbon price to reach C\$170/t CO₂ in 2030
- Clean Energy Standard being developed
- Carbon removal goal – at least 15Mt annually



Green Deal Industrial Plan and Member State support for BECCS

- €250bn for clean energy manufacturing and investment support schemes for production of strategic net zero technologies
- EU carbon removal certification proposal and CCS strategy being discussed
- Sweden – new BECCS support scheme, c.£90-150/t
- Germany – €120m per year funding for CDR development
- France, Belgium, Hungary and Denmark all include BECCS as part of their net zero strategies



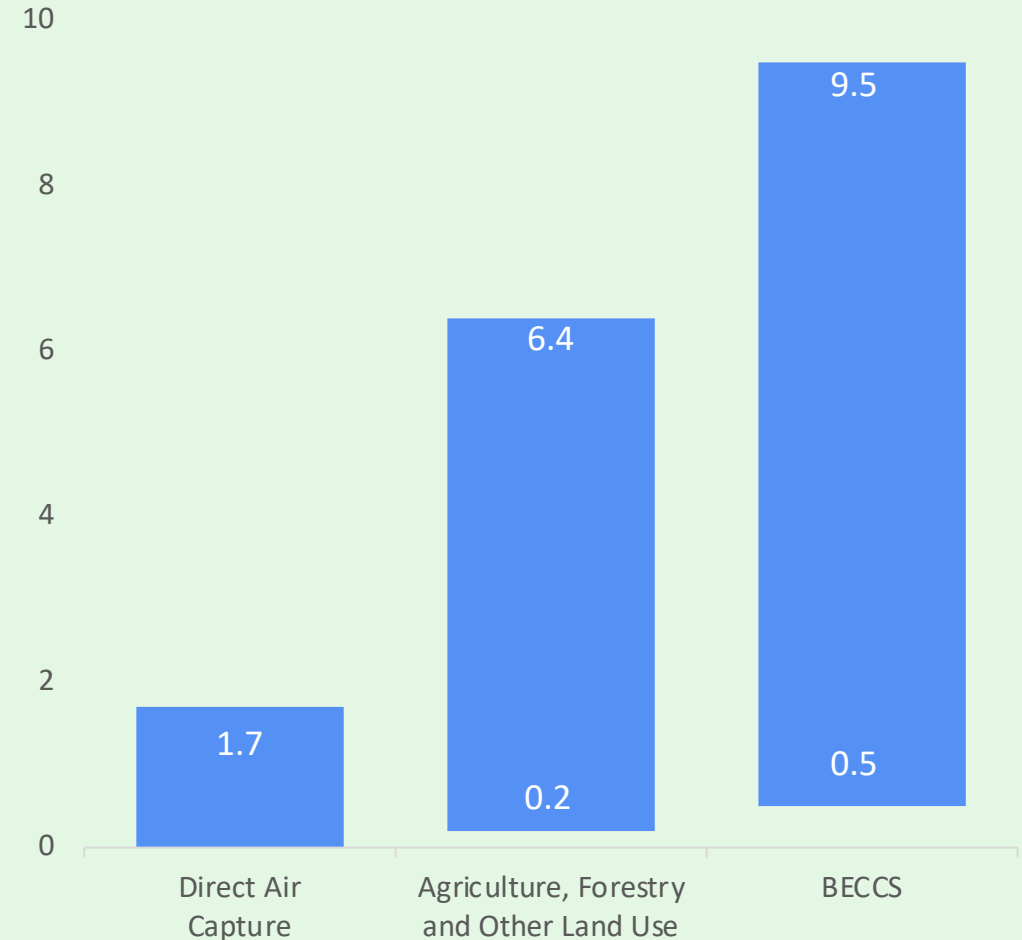
Rest of world

- UK – £20bn CCS investment programme over 20 years
- Japan – Green Transformation Programme to mobilise \$1.1trillion in public-private investment over next ten years, including a carbon pricing mechanism, committed to 6-12Mt of CCS per year by 2030
- Indonesia – target to deliver 23GW of BECCS by 2050
- Asia Zero Emission Community, 11 countries including Australia, Indonesia and Japan, formed to create pathways to enable decarbonisation

Up to 9.5bn billion tonnes of carbon removals per year from BECCS by 2050 required to maintain a 1.5°C pathway

- Reaching net zero requires reductions in CO₂, methane, and other GHG emissions, and implies net-negative CO₂ emissions
- CDR will be necessary to achieve net-negative CO₂ emissions
- If warming exceeds 1.5°C, it could gradually be reduced by achieving and sustaining net negative global CO₂ emissions
- The larger the overshoot, the more net negative CO₂ emissions would be needed to return to 1.5°C

Global annual CDR volumes range in 2050 (billion tonnes)



Sources: IPCC Sixth Assessment Report, Coalition for Negative Emissions website

BECCS is Happening Now But More Supply is Required to Meet Climate Need



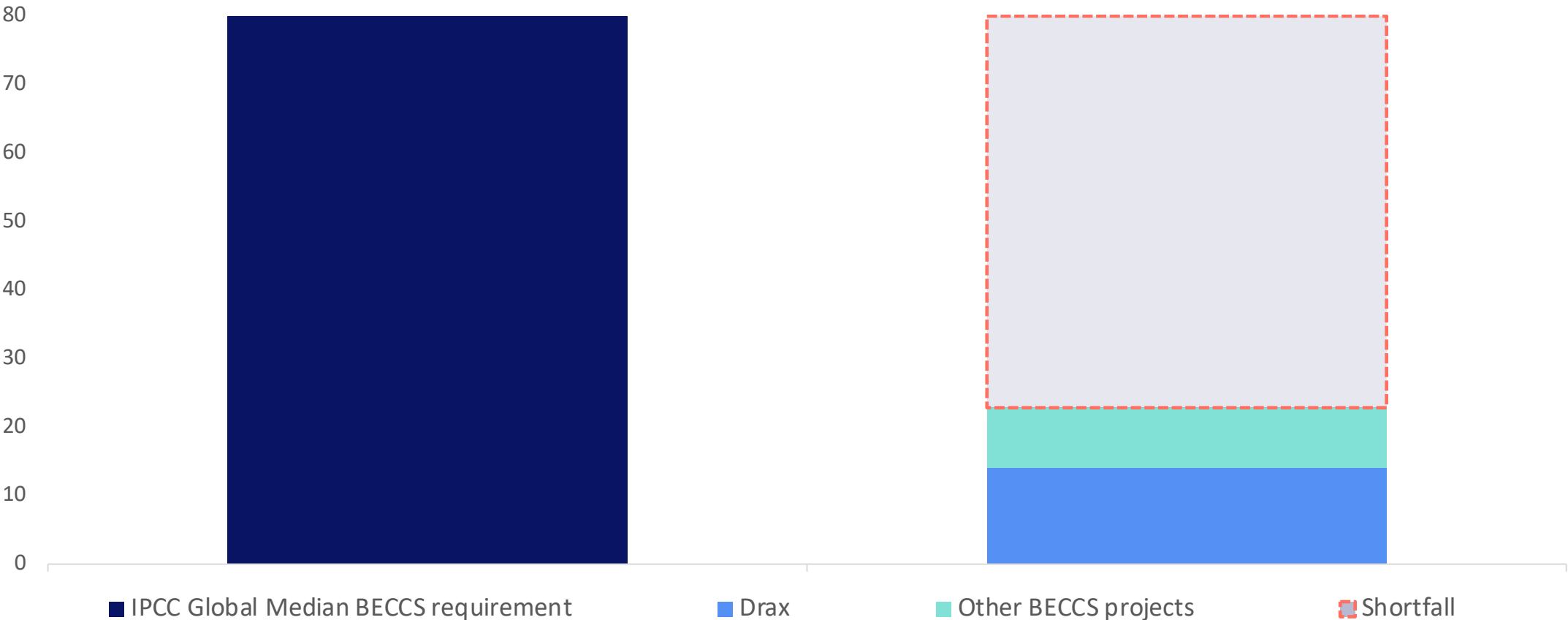
IPCC – annual median BECCS requirement of 80Mt by 2030

- Rising to 2,750Mt by 2050

Over 20Mt of global BECCS capacity in development for 2030

- Including 14Mt from Drax

IPCC annual median BECCS requirements vs. projects in development for 2030 (Mt)



Source: IPCC

Source: Company announcements, annual reports, news articles, public databases

Public prices of high-quality, permanent engineered CDRs are significantly higher than Natural Climate Solutions

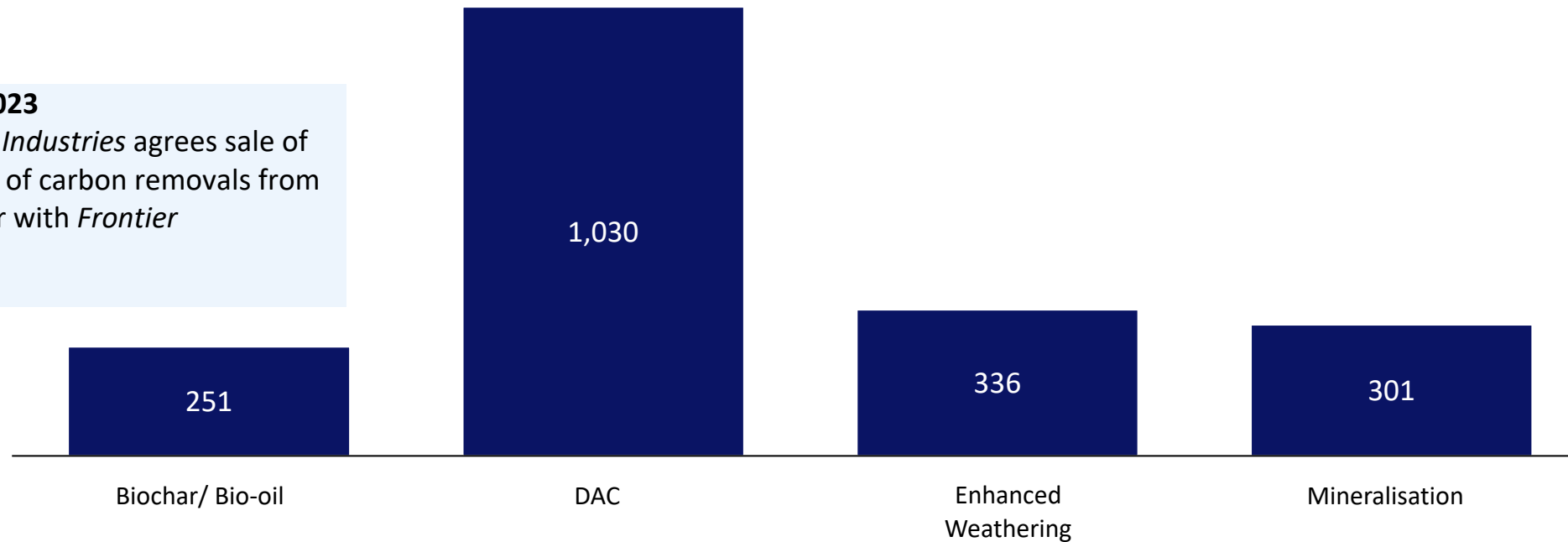
Characteristics of permanent engineered CDRs support robust pricing

- Additional, permanent, quantifiable and sustainable

Average price of CDR deals announced publicly, \$/tCO₂^(1/2)

May 2023

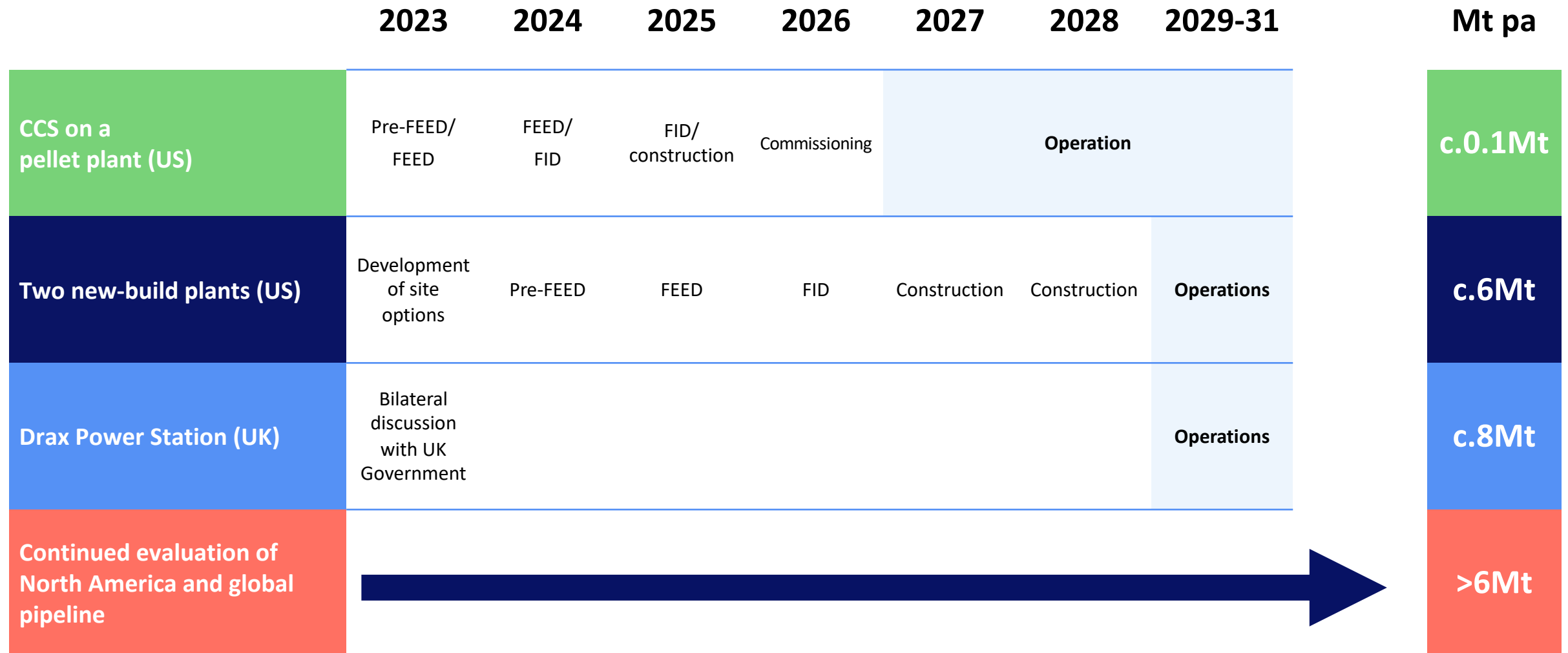
Charm Industries agrees sale of >112kt of carbon removals from biochar with Frontier
\$53m



1) Based on all deals publicly announced (2020 – 2023).

2) Average price calculated based on number of deals with price per tonnes disclosed. Volumes are summed across all deals with volume disclosed. Some deals disclose volume and not price.

Drax Current Ambition for >20Mt pa of Carbon Removals



UK Government

Supportive of deployment of Power-BECCS by 2030

5MtCO₂ of carbon removals by 2030 (and 23MtCO₂ in 2035)

- Business model to support Power-BECCS under development

Powering-Up Britain announcement (March 2023)

- Drax one of two successful BECCS projects shortlisted
- Track-1 expansion process announced
- Track-2 process launched for projects expected to commission by 2030
- Work closely with biomass generators to facilitate transition to BECCS

Further announcements in 2023

- Biomass Strategy – expected to outline the role of power-BECCS, deployment ambitions, and sustainability criteria (June 2023)
- Track-1 Expansion detail
- Track-1 Expansion and Track-2 funding envelope
- Carbon removals consultation response

Drax

Committed to deployment of two BECCS units at Drax Power Station between 2027 and 2030

Targeting clarity on UK BECCS programme in 2023

- Formal bilateral engagement with UK Government commenced

‘Bridging mechanism’

- Engage with Government on the need for a mechanism to support Drax Power Station from 2027 and the commissioning of BECCS

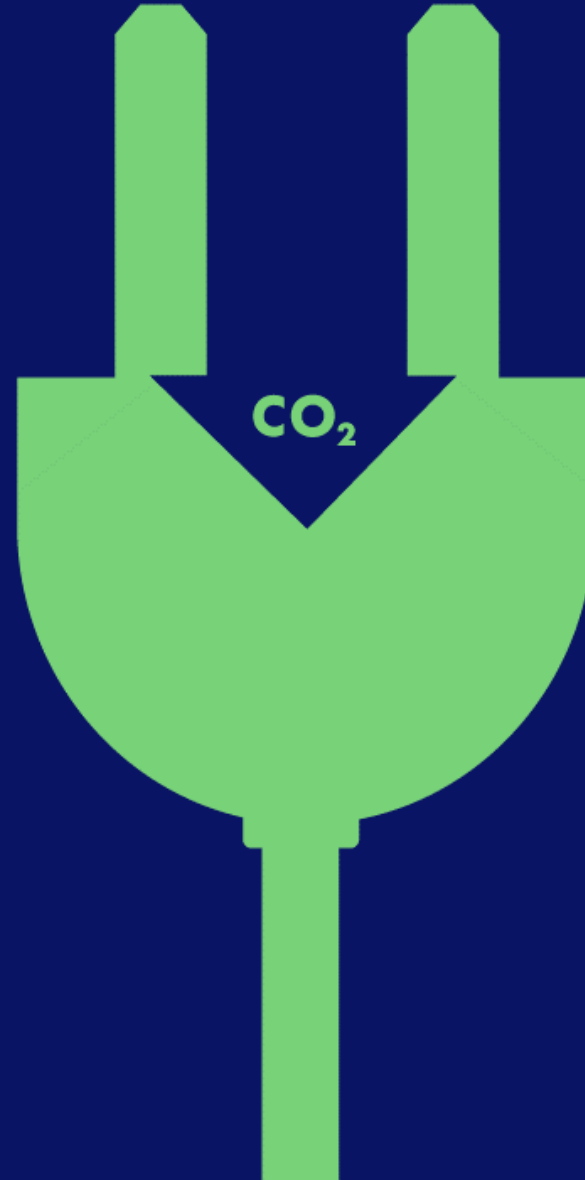
Power-BECCS business model

- Develop heads of terms for the model in 2023 and aim to enter contract negotiations following this



Carbon Dioxide Removals

Jason Shipstone: Chief Innovation Officer
& Global BECCS Program Director



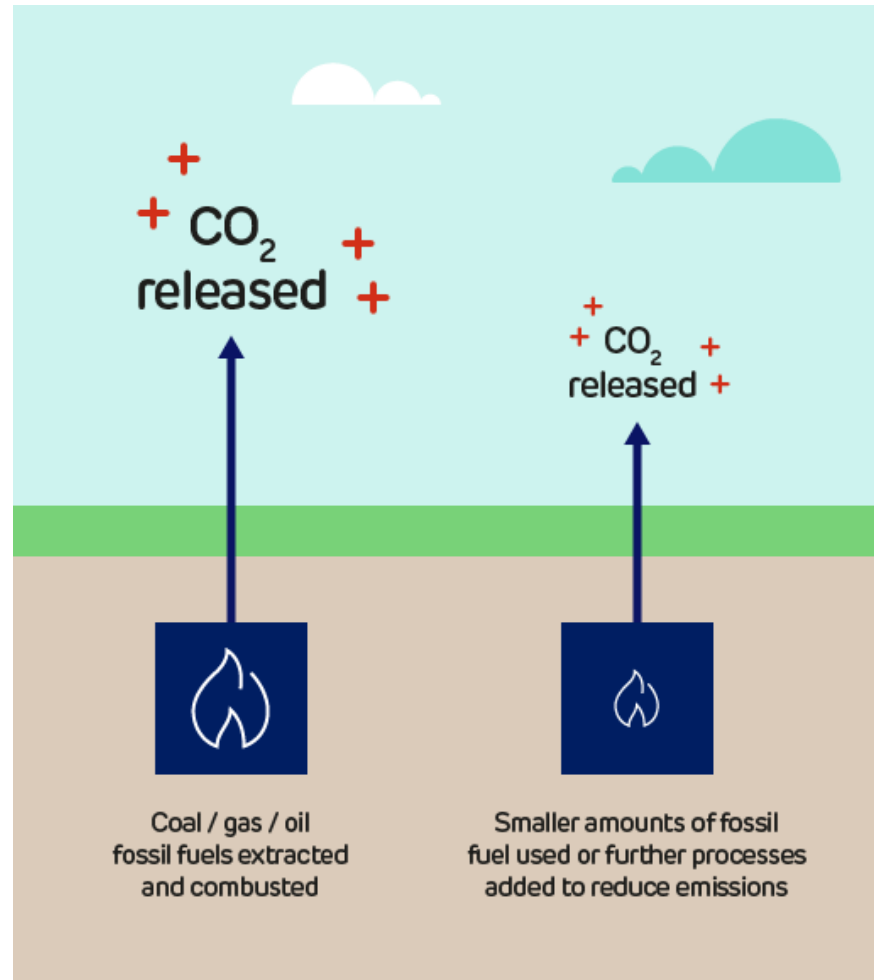
Compelling science-led case on the need for carbon removals now

IPCC and other science-led organisations informing policy and the investment case

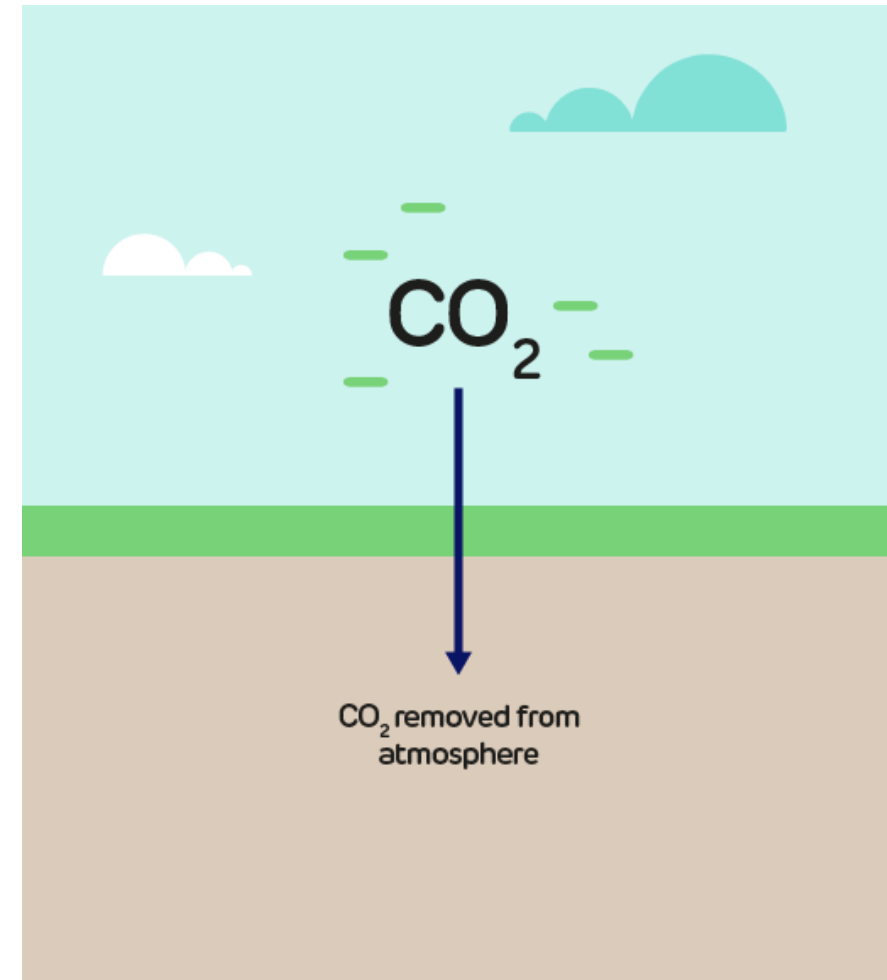


Early deployment of CO₂ removals required to achieve net zero by 2050

Carbon reduction



Carbon removal



CO₂ is absorbed from the atmosphere as tree grows

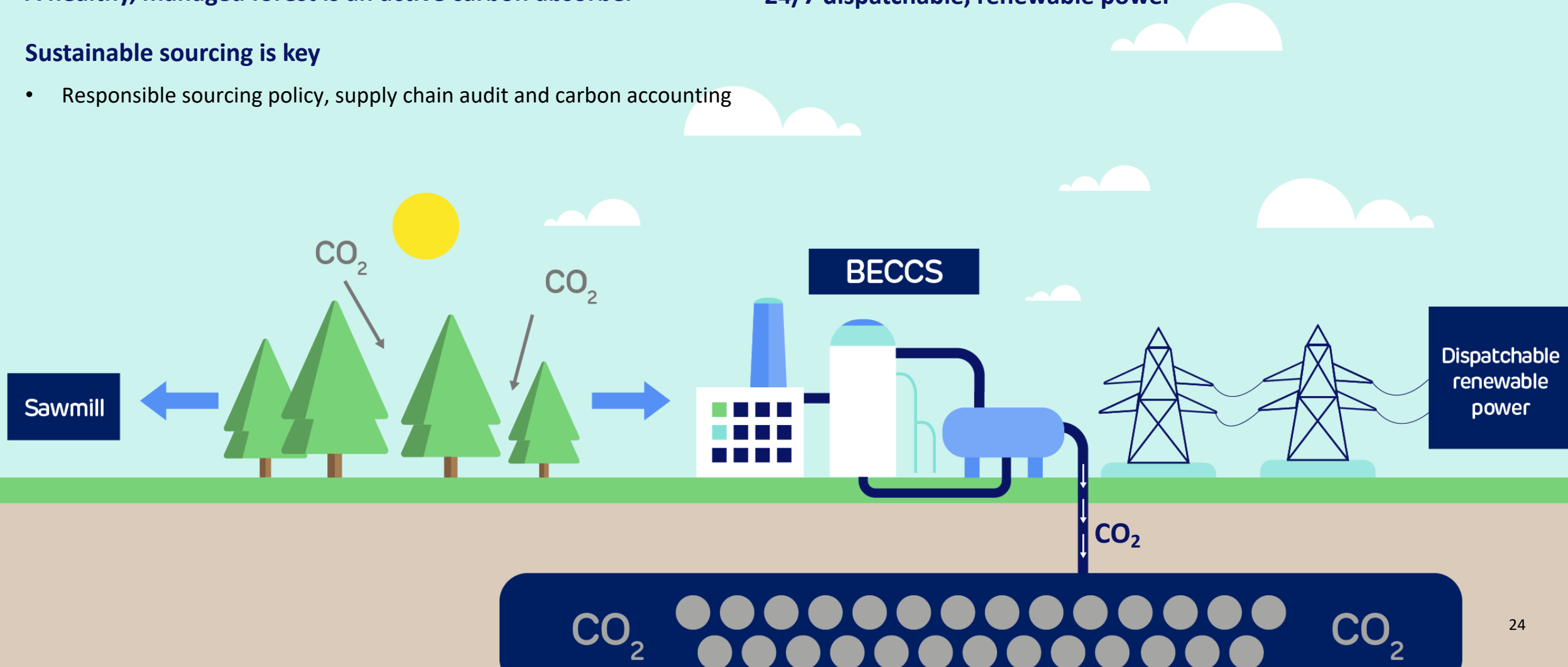
A healthy, managed forest is an active carbon absorber

Sustainable sourcing is key

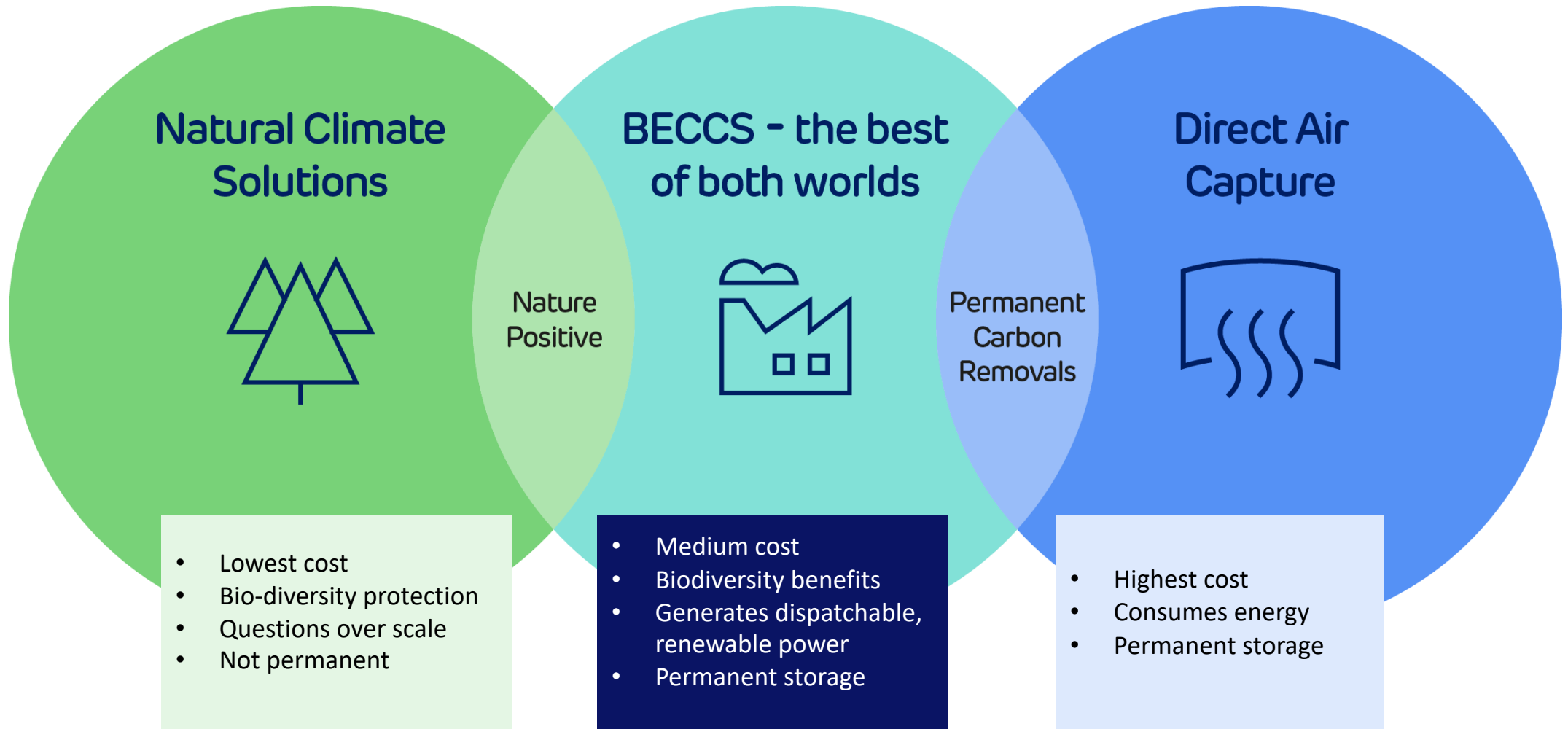
- Responsible sourcing policy, supply chain audit and carbon accounting

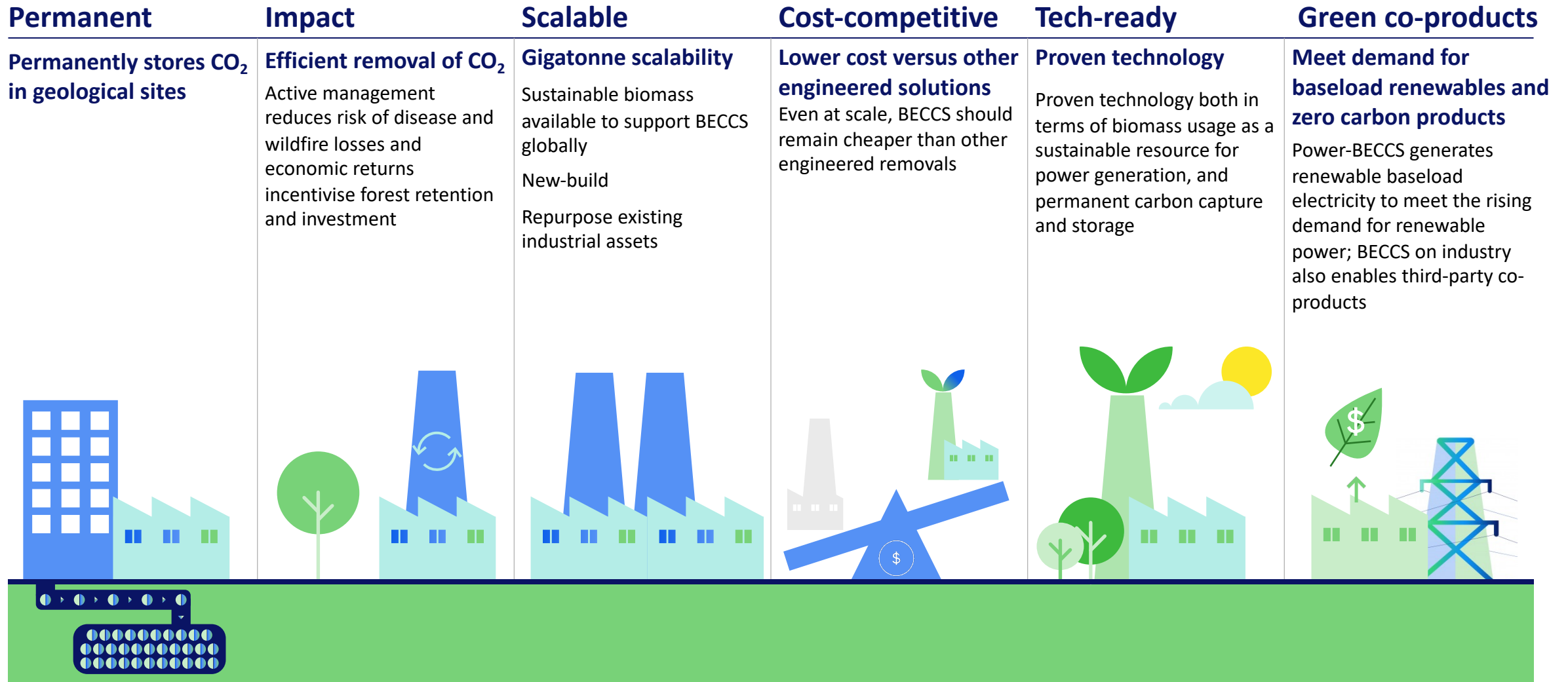
The BECCS process separates and permanently stores CO₂ underground

24/7 dispatchable, renewable power

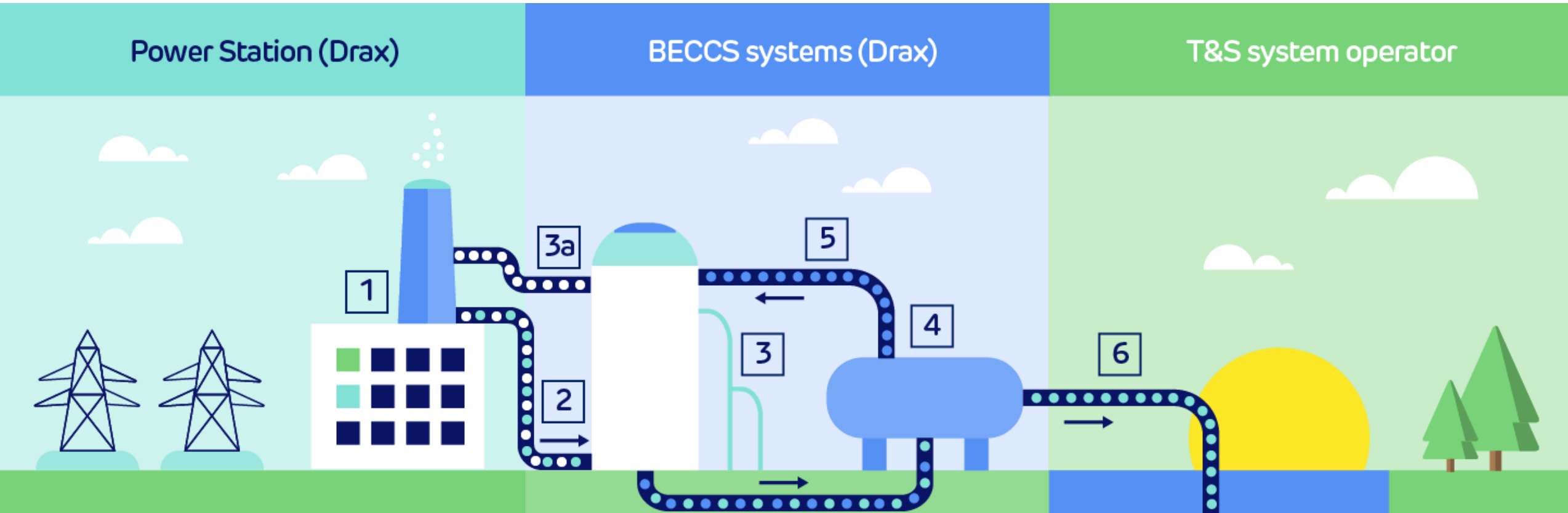


Achieving net zero will require the deployment of a full range of technologies





Post-combustion capture on existing biomass generation units and solvent treatment of CO₂



KEY

- Flue gas
- CO₂
- Solvent

1. Flue gas containing CO₂ leaves the power production process
2. The flue gas is cooled and treated before entering an absorber tower
3. Inside the absorber tower, a chemical reaction takes place which extracts CO₂ from the flue gas. CO₂-depleted flue gas is released into the atmosphere (3a)
4. The solvent containing the CO₂ is heated in a re-boiler, which reverses the chemical reaction separating the CO₂ from the solvent
5. The solvent is then re-circulated back into the carbon capture system
6. The now pure stream of CO₂ is transported via pipeline for permanent storage underground, under the ocean or sea

BECCS is the only non-fossil technology to offer the full suite of system services – enabling the integration of intermittent renewables while dispatchable fossil plant diminishes

SYSTEM SERVICES	BECCS	GAS CCS	NUCLEAR	WIND	SOLAR	BATTERIES	INTER-CONNECTOR
Carbon removals	YES	NO	NO	NO	NO	NO	NO
Clean electricity	YES	PARTIAL	YES	YES	YES	PARTIAL	PARTIAL
Controllable / Dispatchable	YES	YES	NO	PARTIAL	PARTIAL	YES	YES
Inertia	YES	YES	YES	NO	NO	NO	NO
Dynamic response	YES	YES	NO	PARTIAL	NO	YES	YES
Reserve	YES	YES	NO	PARTIAL	NO	YES	YES
Reactive Power	YES	YES	YES	PARTIAL	NO	YES	YES
Black Start	YES	YES	PARTIAL	NO	NO	NO	YES

Proven technologies and a biomass supply chain demonstrated over c.20 years

Bioenergy (BE)

- Use of biomass for generation since 2004
- Operator of world's largest biomass power station
- Operator of world's second largest pellet production business
- New-build BECCS can simplify supply chain even further

Carbon Capture (CC)

- Multiple reference plants capturing CO₂ globally, including reference plants at >1Mt capture pa
- Drax Power Station project will utilise Mitsubishi Heavy Industries (MHI) advanced amine technology
- >6,000 hours of testing has proven the chemistry

Storage (S)

- Targeting areas with well-mapped geologies



Is BECCS an efficient capture process?

- BECCS is one of the most efficient technologies for large scale carbon removals
- Advanced amine technology – capture rate of around 95%

Retrofitting BECCS means the loss of thermal efficiency?

- The energy consumed in a BECCS plant is used for the production of two products (1) renewable power and (2) carbon removals – it is not lost

Does BECCS lead to a higher level of SOx and NOx emissions?

- Biomass is already a low sulphur
- SOx in the flue gas is treated and removed in the quench column before the flue gas is passed through the CO₂ absorber
- NOx is controlled in the power island and reduced further as part of the carbon capture cycle

BECCS is unproven?

- The post combustion technology we plan to use has been proven at scale and is deployed on numerous sites globally
- >6,000 hours of testing of solvent on live flue gas at Drax Power Station over the last two years

BECCS will lead to unsustainable fibre consumption?

- We have a responsible sourcing policy, which supplements national and regional regulations mitigating this risk

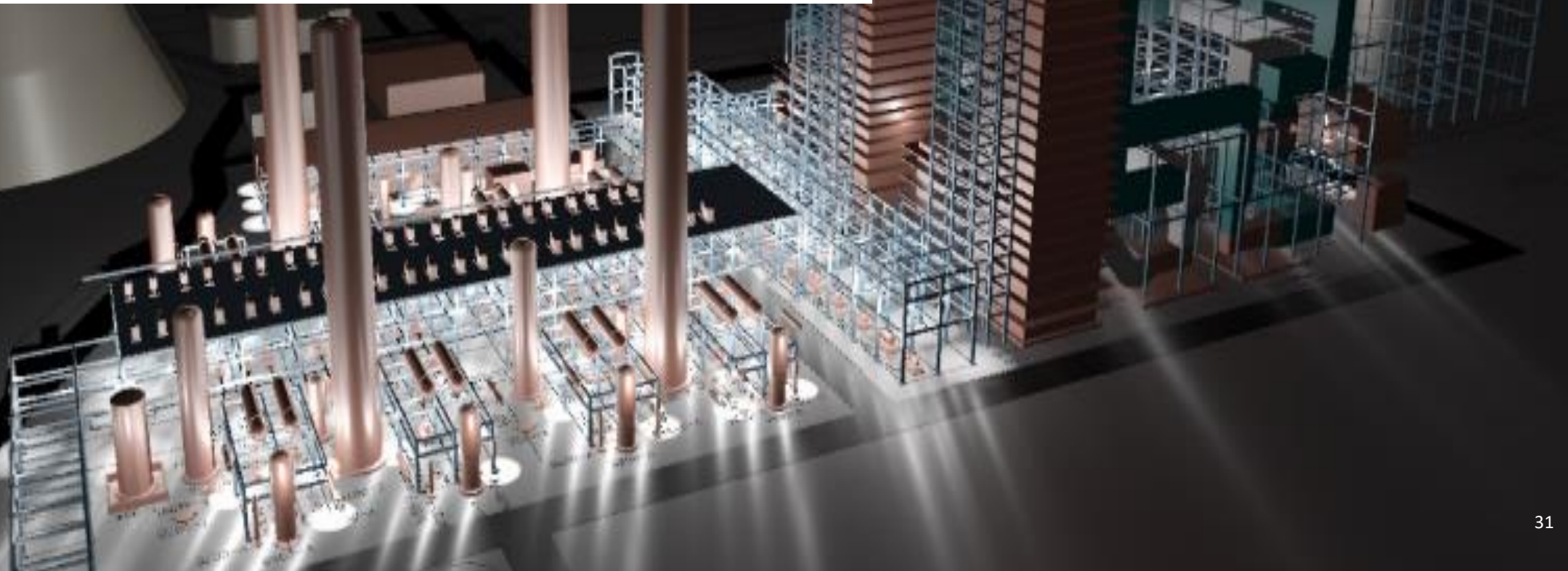
Targeting 8Mt pa of carbon removals by 2030

- Retrofit of BECCS on two generation units at Drax Power Station

Proven and scalable technology

- Mitsubishi Heavy Industries selected as solvent technology partner

Required to achieve UK Government target for 5Mt of carbon removals by 2030



CCS on a pellet plant

Early deployment on BECCS technology on existing supply chain assets to demonstrate technology at smaller scale, stimulate CDR market and reduce supply chain emissions

Targeting FID in 2024/25 and commissioning in 2026



Drax is pursuing a project to capture and permanently store the CO₂ produced from an existing pellet plant

Why install CCS on a pellet plant?

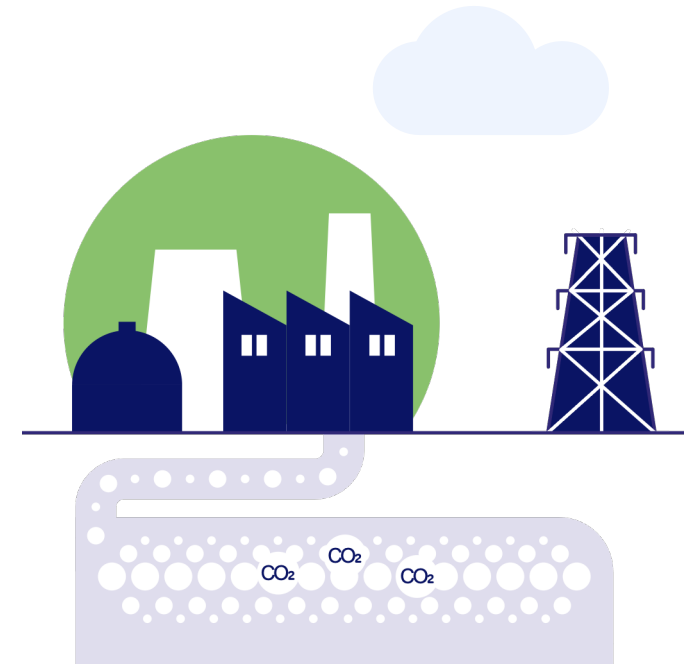
- Early deployment and demonstration of CCS with biomass
- Access to early CDR to help stimulate the market
- Utilisation of existing infrastructure and expertise from work on BECCS
- Removal of CO₂ emissions from pellet manufacturing process
- Lower capital investment

Location

- Evaluating options for development at existing Drax plants at Morehouse or LaSalle (Louisiana)

Technology and innovation

- Evaluation of multiple technology options



Carbon removal capacity:
>100kt/year



Investment:
c.\$150m



Targeted commissioning:
2026

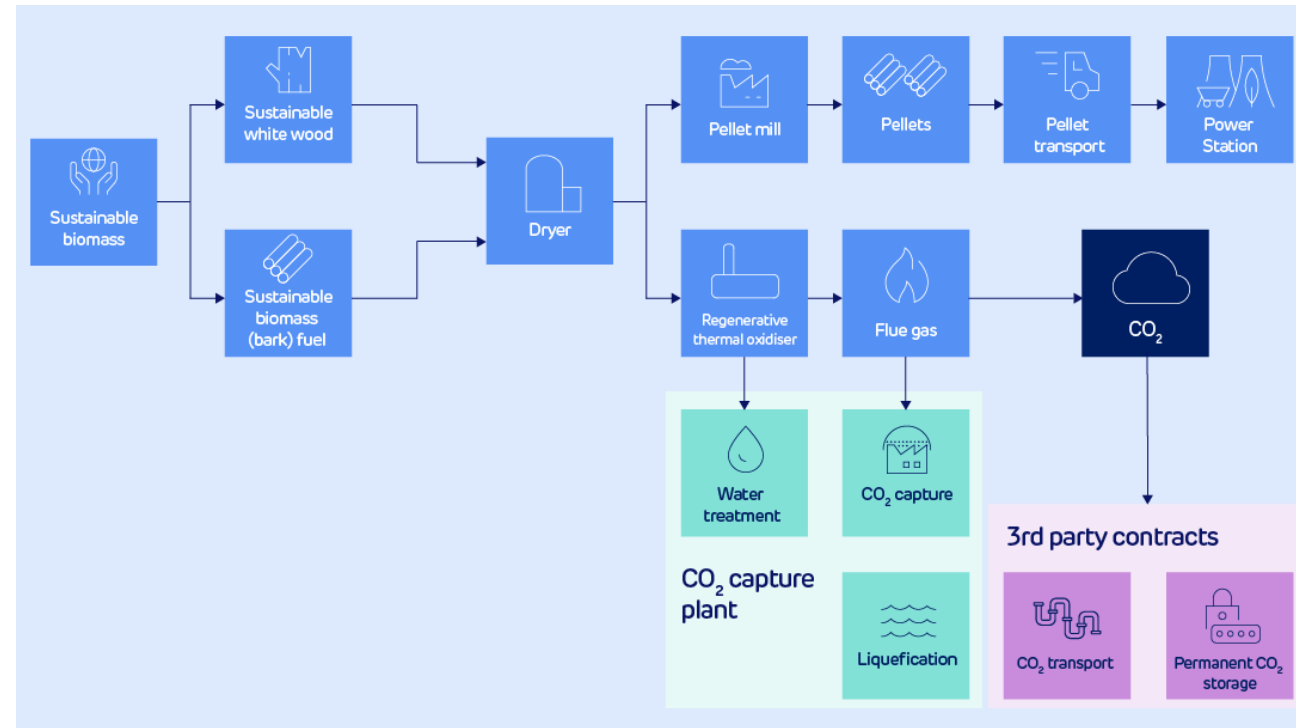


Permanent jobs
20+

Carbon Capture & Storage on a Pellet Plant – How it Works and Timetable

The key components of the CO₂ capture plant include CO₂ capture, liquefaction, water management, offloading and transport, balance of plant, and pellet plant brownfield components

Operational process



Development timetable



Development of Global BECCS

Drax is developing a pipeline of project options in North America to provide long-term, large-scale carbon removals opportunities and create attractive investment opportunities

US Inflation Reduction Act is creating an enlarged investment opportunity for BECCS

Developing options in Europe and Australasia



Multiple options for deployment

New-build BECCS

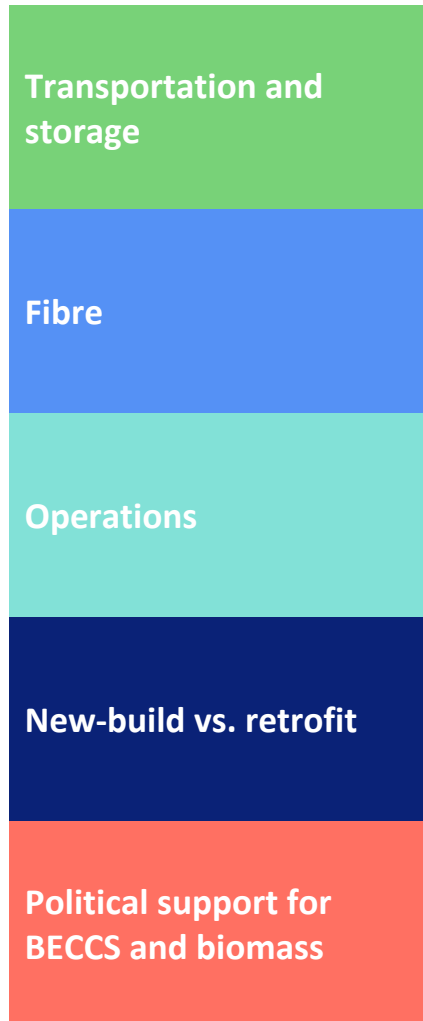
- Site the plant near the fibre basket and Transportation & Storage
- Design the plant with modern boiler technology to use wood chip and / or wood pellets, depending on location

Coal-to-biomass-to-BECCS

- Retrofit of existing plants
- Likely to use wood pellets
- Similar model to Drax Power Station

Co-located or integrated BECCS

- Use BECCS knowhow to integrate into other processes
- Sustainable Aviation Fuel – attractive host site for BECCS – multiple synergies
- Other advantages of being ‘inside the fence’



Sited on or next to suitable CO₂ storage, reducing distance transported

Proximity to fibre baskets reduces transportation

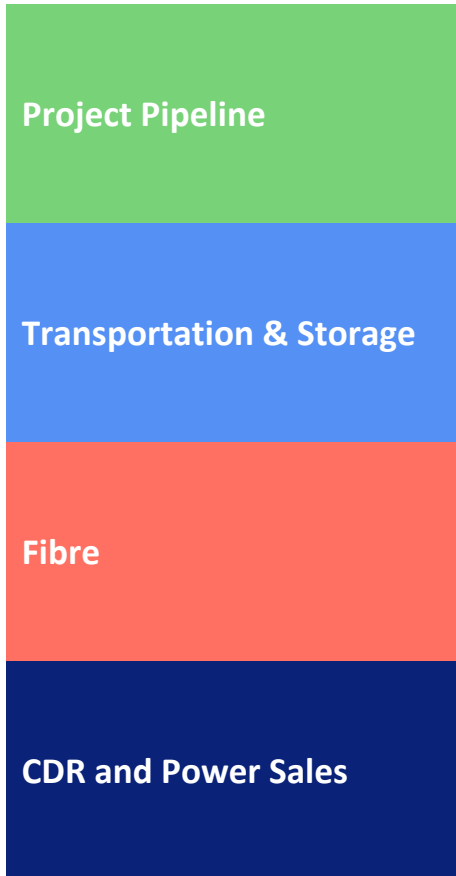
Potential for lower fuel cost and wider fuel diet

Bottom-up design for biomass, not coal-to-biomass conversion

Efficiency through design – bottom-up design for biomass with optimised operational efficiency

Higher capital cost vs. retrofit – construction of new power generation and CCS units

Long-term supportive investment environment with national and local support



2 sites selected and progressing to option in US South, targeting c.6Mt by 2030

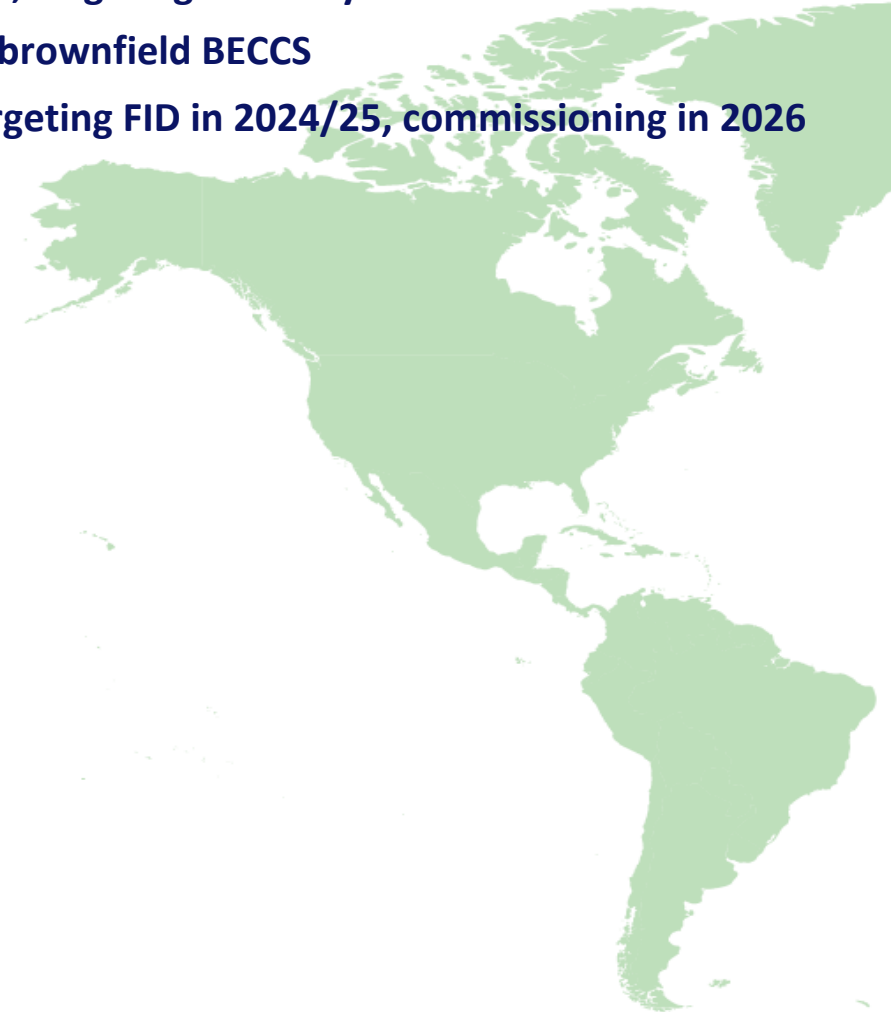
Evaluating 9 additional sites in US for greenfield and brownfield BECCS

Development of option for CCS on a pellet plant – targeting FID in 2024/25, commissioning in 2026

MoUs in place with T&S providers

MoUs in place with three leading forestry companies

MoU for sales >2Mt of CDRs



Political support for
BECCS and biomass

US: targeting carbon-free power grid by 2035; net zero target by 2050; long-term strategy recognises the need for biomass

Inflation Reduction Act provides incentives for CCS

Canada: coal phase-out by 2030; net zero electricity system by 2035 and federal carbon price plan to increase C\$15/t per year from 2023 to reach C\$170/t by 2030

Sustainability

Screening of long-term fibre supply

Resources

80 hires into Global BECCS – investing in people, resourcing for growth

New Global BECCS HQ being established in Houston, Texas

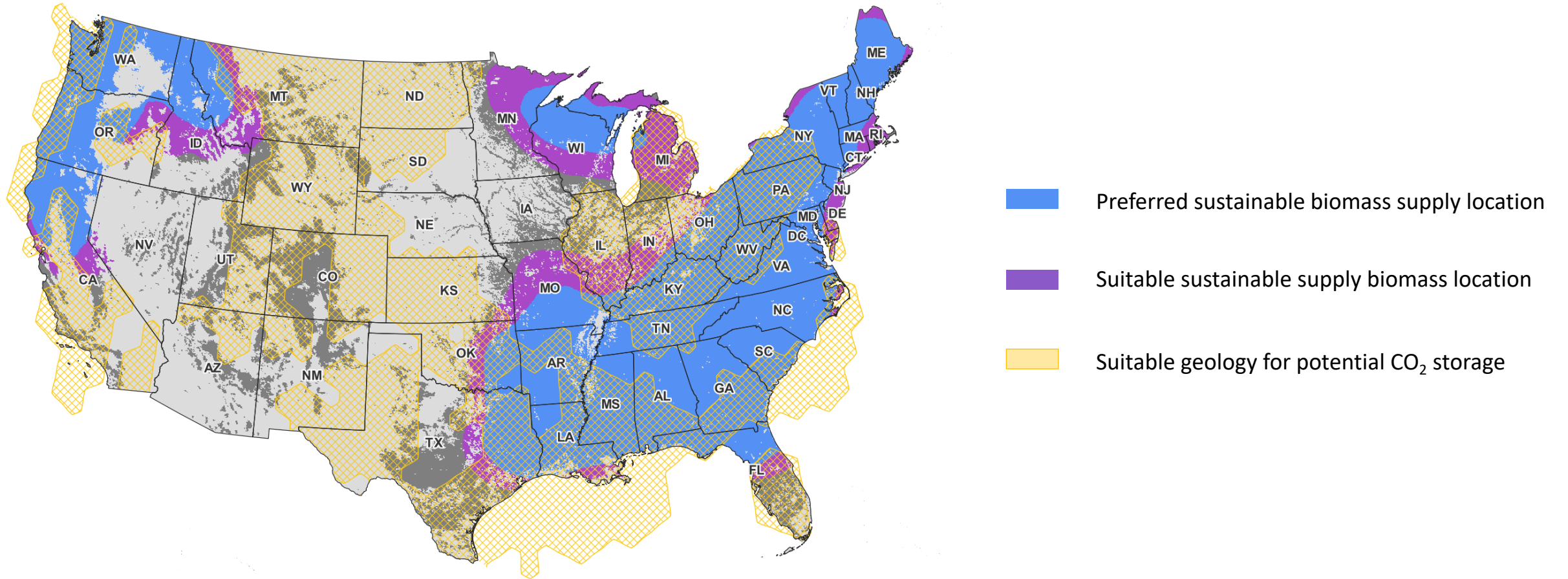
Financial

Targeting attractive returns significantly above cost of capital

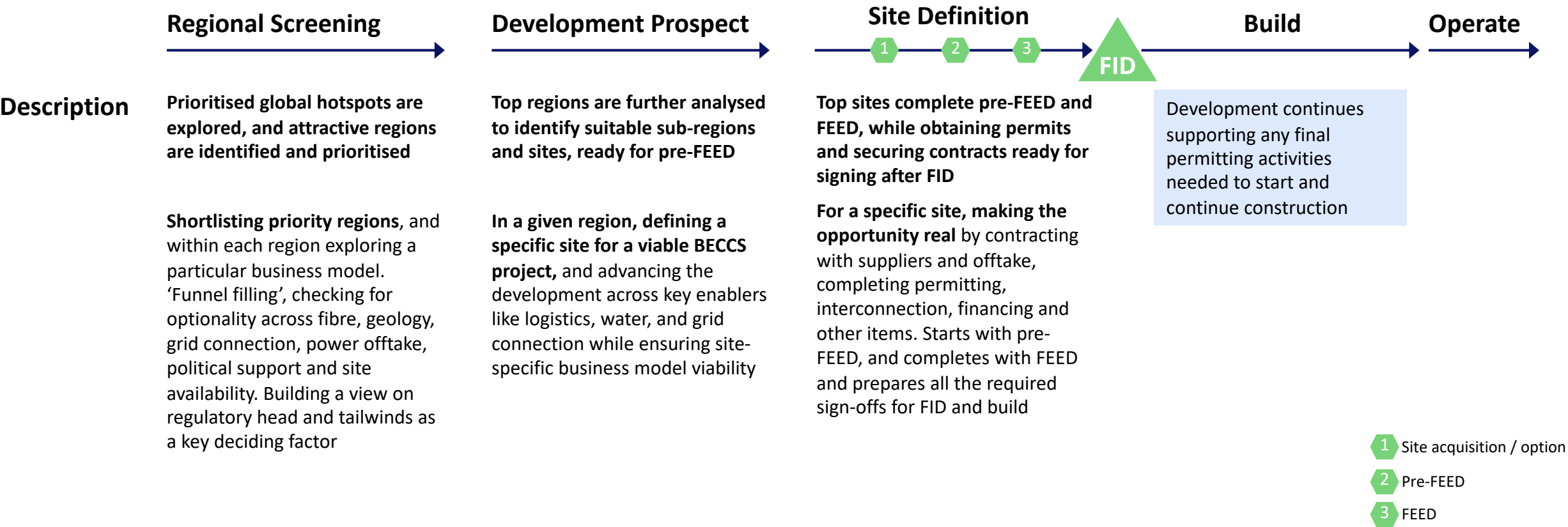
Developing a range of funding options with attractive debt and equity returns accretive to existing shareholder equity

Where Are We Looking in the USA?

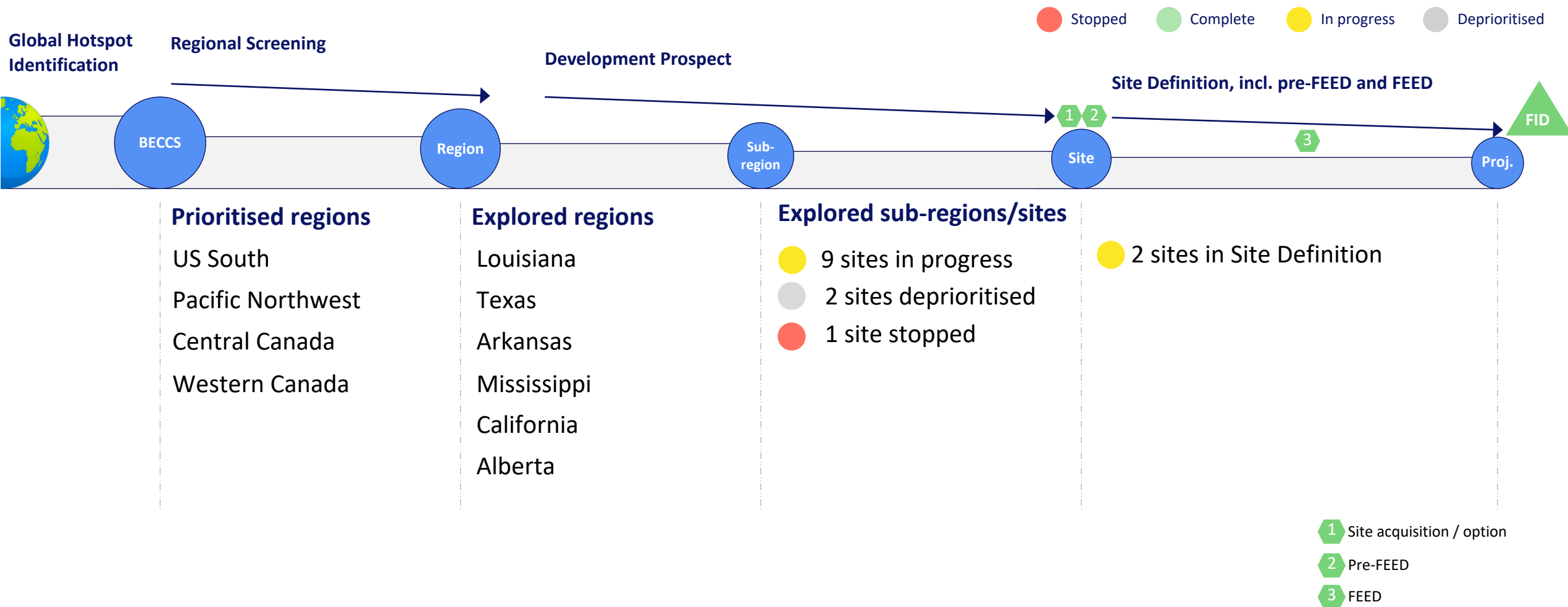
Focus on regions with a sustainable supply of biomass and favourable geology for CO₂ storage



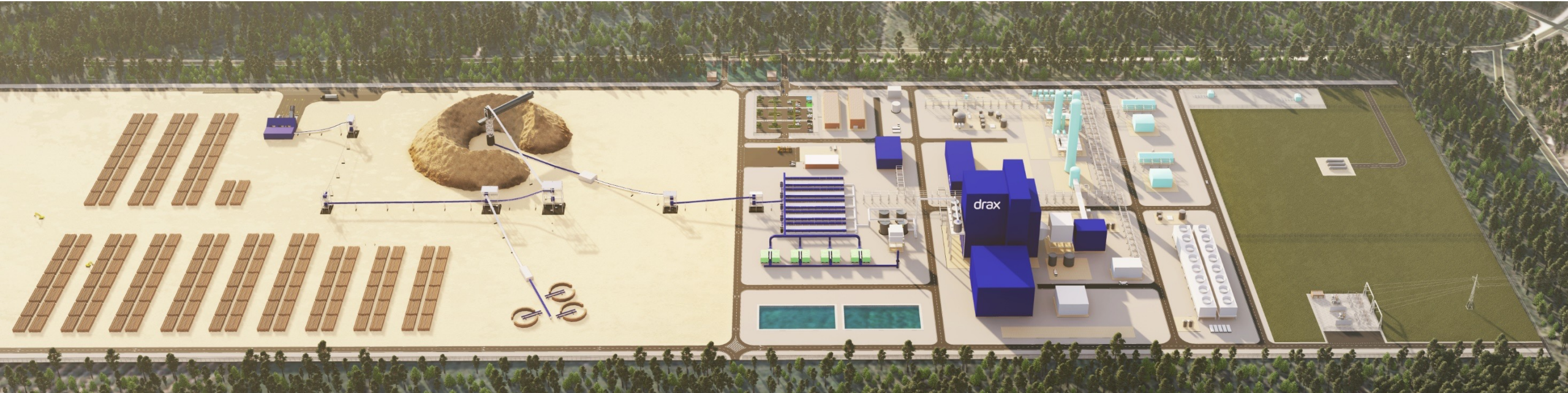
Targeting FID on first two projects in 2026 and commercial operations by 2030



North American funnelling



Feasibility studies conducted with Bechtel and Worley – optimal size identified for new-build BECCS facility



Generation capacity:
c.270MW net
c.400MW gross



Renewable power generated:
c.2.0 TWh
of 24/7 renewable baseload power



Carbon dioxide captured:
c.3Mt
of carbon sequestered annually



Investment:
c.\$2bn
initial capital investment from Drax



Healthy forests:
c.3Mt
green tonnes of low-grade fibre



Job creation:
1,000+
permanent jobs supported by plant
operations and across supply chain

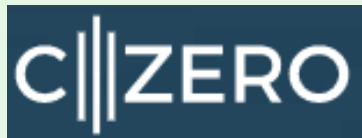


CDR sales

- MoU for sale of 2Mt of CDR with Respira



- MoU with C-zero



Fibre sourcing

- MOUs in place with three leading forestry companies



Transportation and storage

- MoUs in place with T&S providers



Flexible technology deployment – BECCS as a service

- Open to bespoke solutions to particular industries
- SAF, chemicals, retrofit

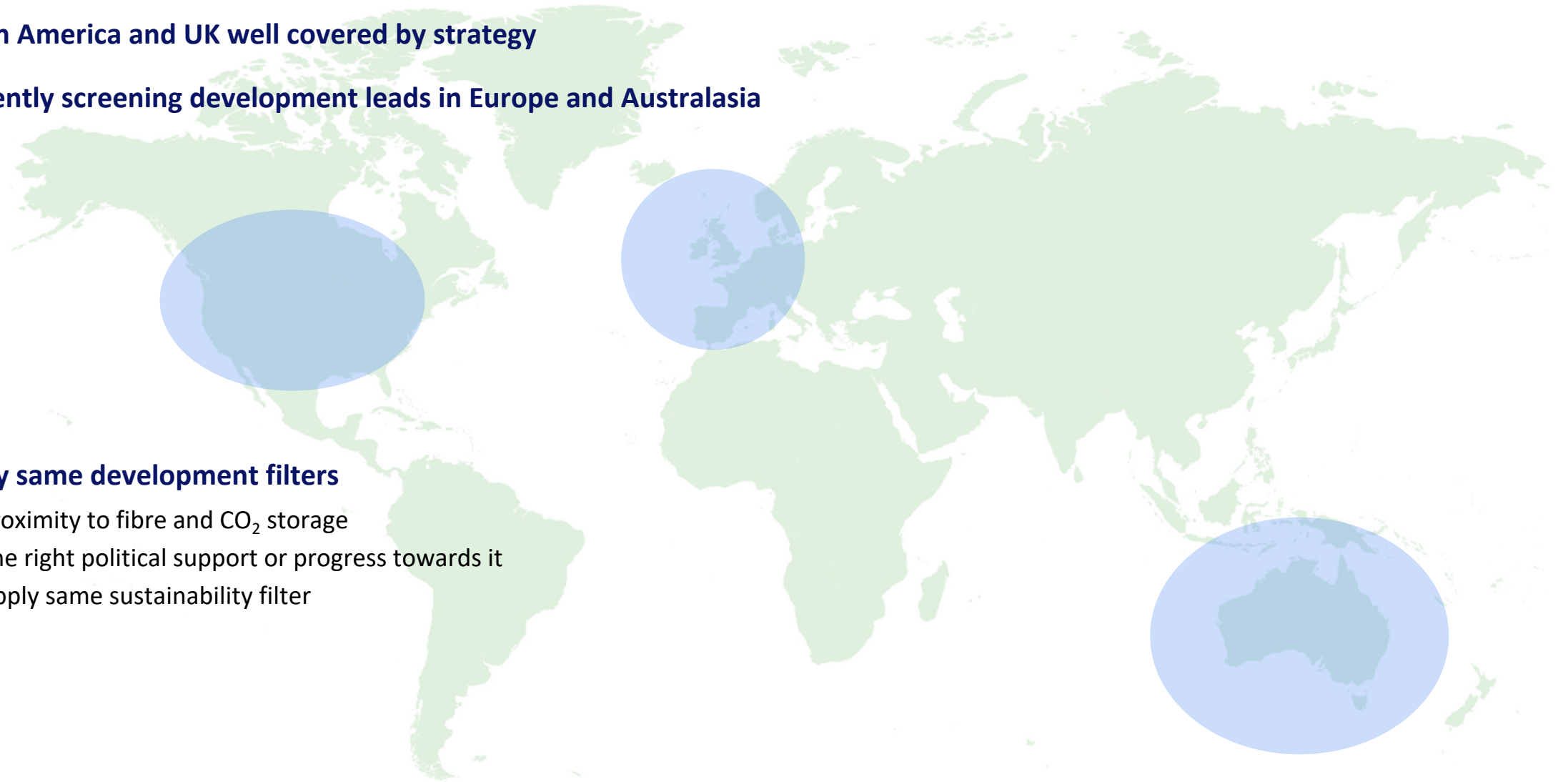
Developing options for BECCS beyond North America and UK

North America and UK well covered by strategy

Currently screening development leads in Europe and Australasia

Apply same development filters

- Proximity to fibre and CO₂ storage
- The right political support or progress towards it
- Apply same sustainability filter



Ambition for >20Mt pa of carbon removals via BECCS – 14Mt pa by 2030

North America

- 2 sites selected and moving to option in US South – targeting FID in 2026 and operation by 2030, c.6Mt pa of carbon removals
- Pipeline of options for potential future development – screening 9 additional sites (greenfield and brownfield)
- Development of option for CCS on a pellet plant – targeting FID in 2024/25, commissioning in 2026

UK

- 8Mt of carbon removals at Drax Power Station by 2030

Global

- Currently screening development leads in Europe and Australasia

Sustainable Business

Alan Knight:

Director of Sustainability



drax

Financial, climate, nature and people positive outcomes

Countries, businesses and individuals are increasingly conscious of sustainability

- But behavioural changes are being offset by growth and new consumption

Drax – long-term financial performance with positive climate, nature and people outcomes

- Supporting more renewable energy
- Helping to restore the climate by removing CO₂
- Supporting the quality and growth of nature systems like forests
- Creating green jobs and supporting communities



Our business is based on what the scientific consensus is telling us

Independent Advisory Board continues to scrutinise our use of science

Creation of a central science function

- Enhance use of existing science
- New research
- Share thinking with stakeholders

Development of BECCS Evidence Book

The Case for BECCS: An Evidence Book

The need and ability to scale up BECCS at an accelerated pace, true to sustainability



2023

‘BECCS Done Well’ report – *Forum for the Future* (November 2022)

- Independent report commissioned by Drax
- Panel of four experts – Jonathon Porritt chair
- Seventy-plus expert stakeholders interviewed
- Supportive of BECCS
- Thirty conditions to ensure BECCS is done well

Since publication

- Extensive internal consideration chaired by Will Gardiner
- Preliminary response due to be published shortly
- Full commitments and policies to follow
- Continue to work with Jonathon Porritt

BECCS DONE WELL

Conditions for Success for Bioenergy with Carbon Capture and Storage

Prepared by
The High Level Panel on BECCS Done Well

November 2022

Biomass sustainability and standards

The world needs more timber for construction, manufacturing and more

- Timber creates sawdust and shavings
- Harvesting forests creates thinnings, branches, unusable logs
- Good forest management includes removal of material
 - Reduce the risk and intensity of forest fires
 - Restoration from disease
- Drax fibre sources are embedded in the timber industry
 - c.98% from sawmill and other wood industry residues, branches and tops, thinnings, low-grade roundwood
 - c.2% agricultural residues



We source from forests that are well regulated to ensure positive people, nature and climate outcomes

- Working forests are well managed
- Healthy managed forests deliver sustained ecological, economic and social outcomes
- Working forests for timber encourages regeneration
- Active management of forests reduces risk of disease and wild-fire

Utilisation of material with limited other uses



**Protection of
sensitive sites**



**Forest Fire protection
and Restoration from
disease**



**Improved
Biodiversity**



**Increased forest
productivity**



Local employment



**Improved access for
recreation**



Historically, commercial uses for residues were limited... particularly in British Columbia...
.....where burning of residues was undertaken

Biomass provides a better alternative and supports long-term investment in good forest management

c.60% of Drax Group fibre comes from USA

- Working forests harvested by landowners for timber and pulp
- Stable / growing carbon stocks
- Engagement with suppliers helps sustain and improve forest management practices
- Working with small and large producers

c.20% of Drax Group fibre comes from Canada

- 80% – sawdust and sawmill by-products

Drax Group sources of fibre

	Sawmill and other wood industry residues	Branches and tops	Thinnings	Low-grade round wood	Arbori and agri. residues	Waste	Total
USA	19.7%	3.0%	13.8%	22.0%	1.4%	-	59.9%
Canada	20.2%	3.3%	-	0.8%	-	-	24.3%
Latvia	2.1%	-	-	6.8%	-	-	8.9%
Portugal	0.1%	0.3%	0.3%	1.2%	-	-	1.9%
Brazil	-	-	0.0%	1.8%	-	-	1.8%
Estonia	0.7%	-	0.2%	0.7%	-	-	1.6%
Other European	0.5%	-	-	-	1.1%	0.1%	1.7%
Total	43.3%	6.6%	14.3%	33.3%	2.5%	0.1%	100.0%

Drax Pellet Production sources of fibre

USA	24.3%	0.0%	16.2%	12.3%	-	-	52.8%
Canada	38.9%	7.1%	0.0%	1.1%	-	-	47.2%
Total	63.3%	7.1%	16.2%	13.4%	-	-	100.0%

Catchment Area Analysis

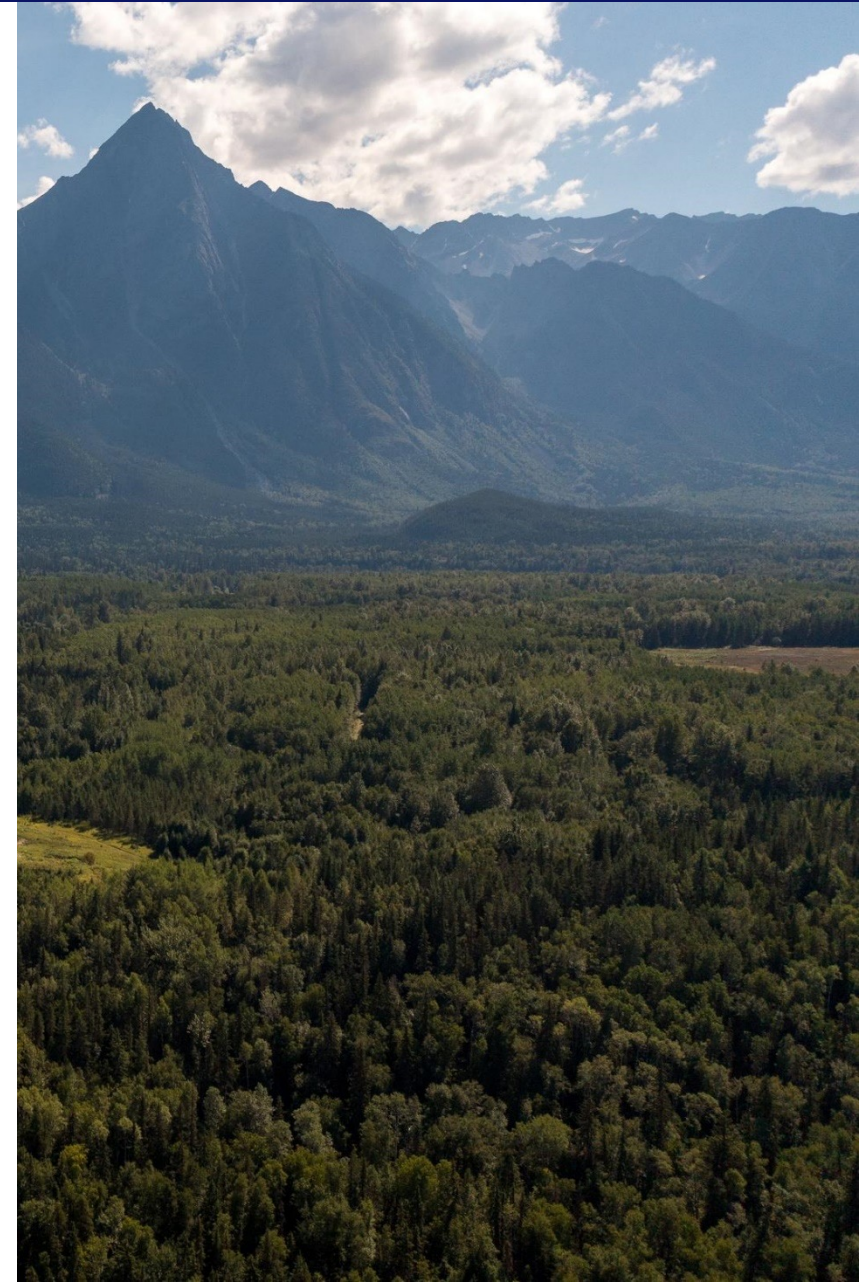
- Tracking of carbon storage and sequestration in regions where we source
- Applied to own-use fibre and third-party suppliers

Catchment Area Analysis considerations

- Amount of carbon stored on landscape (growing stock)
- Sequestration rate of carbon (productivity of forests)
- Harvesting levels vs. productive capacity of area
- Changes in forest management practice
- Wood prices and other markets that use wood

Impact

- Source from working forest areas where there is an established forest industry
- Understand forest carbon factors in areas we source from



Multiple regulations and audits of biomass sources

- In-country forestry regulations for timber sector
- Independent, multi-stakeholder forest standards bodies
 - Forest Stewardship Council® (FSC® C119787), PEFC (PEFC/16-37-1769), SFI (SFI-01578)
- Independent, multi-stakeholder standards for biomass – SBP
- Internal policies and audits



The mark of
responsible forestry



Highlight on:

Sustainable Biomass Program (SBP)

SBP is a certification system designed for woody biomass used in industrial energy production

Originally created by biomass generators, SBP has evolved and has had a multi-stakeholder governance structure since 2019

Sustainable Forestry Initiative (SFI)

Programme for the Endorsement of Forest Certifications (PEFC)

Forest Stewardship Council® (FSC®)

Drax – a leading role in the Glasgow Declaration

Lead the industry in setting sustainability standards for biomass

Clear principles

Forum for users and producers, with others stakeholders to agree a common approach to sustainability

Working with World Bioenergy Association and other sector peers to develop sustainability standards for biomass





The economics of forestry mean we take low-grade material



We buy from regions where forest regulations are tight



Voluntary certification schemes



Sourcing policy, supported by our compliance procedures



UK regulations and compliance



Post-harvesting studies, to track impact



Independent Advisory Board of leading academics



Work with our sector to create a universal gold standard

Towards BECCS and what next?

Geospatial models with sustainability filters...

...exploring three main types of biomass

Modelled current and potential future biomass production

11 geospatial datasets, 7 scientific references and high-resolution data

Criteria



No high conservation value land: intact forest landscape; high biodiversity intactness index; key biodiversity area; peatland; wetland; areas with high soil loss



Leaving enough residue for nature: protect nutrient cycles, floor biodiversity in forests



Good practice forestry and logistics: exclude land steeper than a threshold grade; land far from major infrastructure; containing a low biomass density excluded



Low-grade and forest and sawmill residuals: wood residues, primary residues from forest harvests, secondary residues, and low-grade roundwood
Excludes high-quality roundwood such as sawlogs



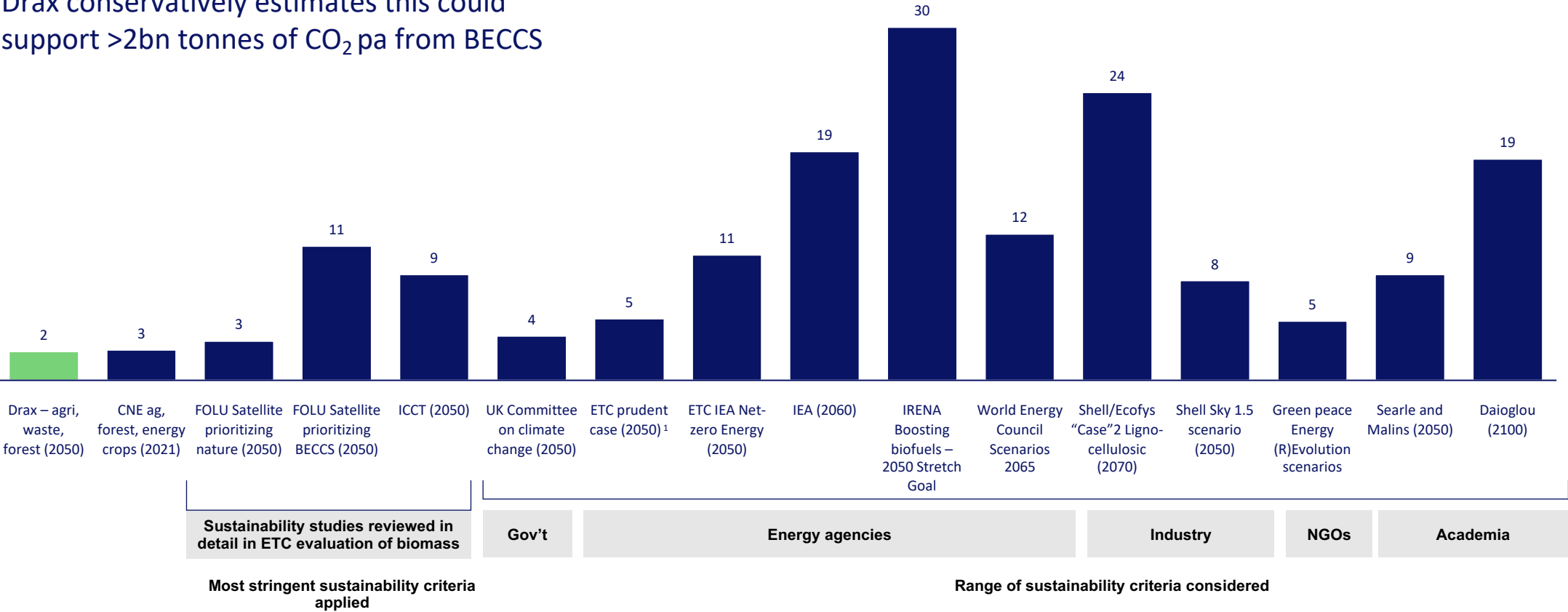
Agricultural biomass: primary residues (e.g., stalks, leaves) and secondary residues (e.g., processing residues like bagasse)



Waste biomass: woody municipal waste, sludges, cooking oils, animal fats, food processing wastes, and other municipal wastes

Theoretical maximum of CO₂ that could be captured by BECCS based on global sustainable biomass supply, billion tonnes of CO₂ pa

Drax conservatively estimates this could support >2bn tonnes of CO₂ pa from BECCS



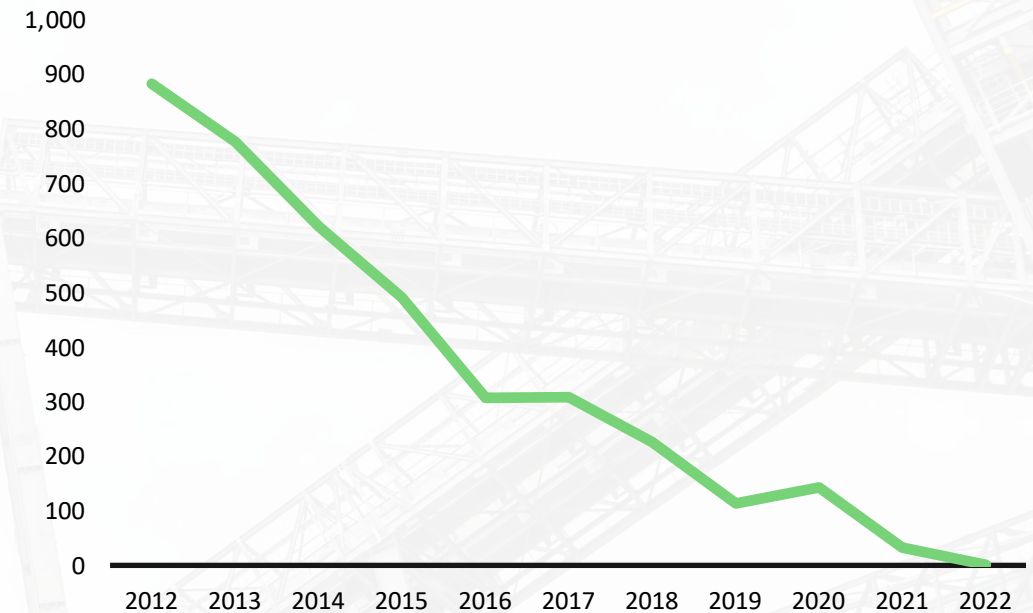
Source: Energy Transition Commission, Drax analysis

Coal reduction saw scope 1 emissions fall

Targets to reduce remaining Group scope 1, 2 and 3 emissions

Targeting net zero by 2030

99% reduction in Generation scope 1 and 2 CO₂ intensity (tCO₂e/GWh) since 2012



- Transition from coal to biomass
- Sale of combined cycle gas generation
- Closure of remaining coal

Well-established science and policies underpins biomass sustainability

Mapping our impact and dependencies on the natural environment to enable us to have a positive impact

- Working with World Business Council for Sustainable Development (WBCSD) and others to establish best practice
- Identifying nature metrics specific to our generation assets and forest sources
- Recruiting nature specialists at corporate and operation level
- Policies and projects in place to protect and enhance nature at our many touchpoints
- Developing partnerships throughout our value chain to deliver benefits to nature
- Member of Task Force for Nature Related Financial Disclosure (TNFD) Pilot

c.£1million investment in 2023 in projects and programmes that support our communities



Drax Foundation

Grant funding for non-profit organizations in the UK, US and Canada



- STEM education and skills development
- Enhancing green spaces and biodiversity in local communities
- Bi-annual grant awards, grants up to £50,000. Supported by employee-led Foundation Committees in each country

Drax Community Fund

Donations to local projects in the communities where Drax operates



- Focus on STEM education and improving local communities
- Projects with high local visibility
- Quarterly donations of up to £2,000 to local community projects.
- Supported by employee-led Charity Committees in each country

Drax Communities in Crisis Fund



- Emergency support for natural disasters, conflict and other humanitarian crises
- Overseen by Drax executive committee



Strengthening governance across the company through a new governance model and ESG reporting

- Sustainability Council
- New executive role for sustainability
- Expert hubs – Climate, Forests, Carbon Reduction, Nature, Biomass
- ESG reporting



A business model that links positive long-term financial, climate, nature and people outcomes

Underpinned by the science and strong governance



Finance Update

Andy Skelton: CFO

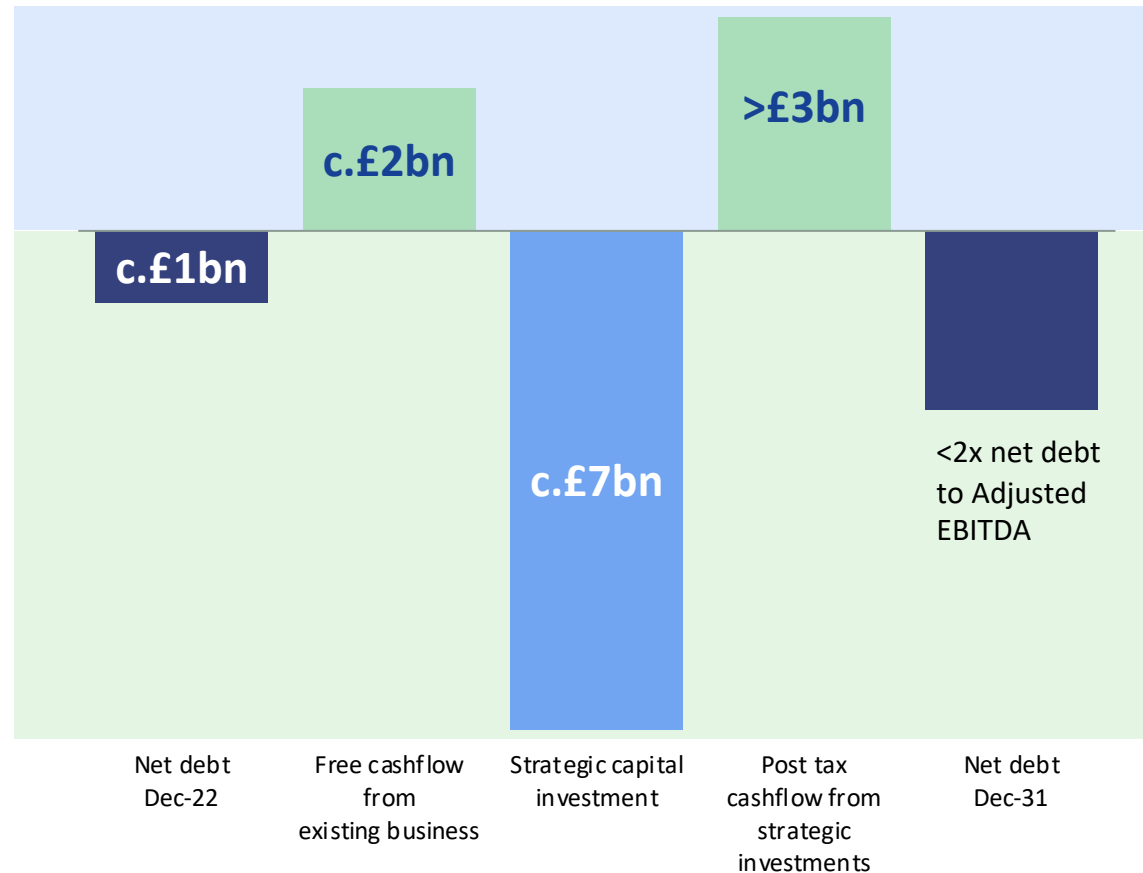


drax

High-quality, strategic asset base aligned with climate solutions, net zero and energy security	• UK – 2.6GW of biomass and 0.5GW of pumped storage / hydro generation • North America – 5Mt of capacity across 18 operational and development plants with access to 5 deep-water ports. Sourcing of sustainable biomass from 4 major fibre baskets • Vertically integrated biomass supply chain and dispatchable UK generation assets support security of supply
Differentiated position with operations across the biomass value chain	• Owner, producer, operator, user and supplier of biomass • c.20 years experience in biomass and long-term relationships with forestry industry • Geographically diversified supply chain with opportunities for trading and optimisation
Strong operational and financial performance	• Adjusted EBITDA underpinned by index-linked revenues extending into the 2030s • £2.3bn of net cash from operating activities since 2017 with strong cash conversion • Strong balance sheet with c.2x net debt to Adjusted EBITDA target
Significant global growth opportunities aligned with climate solutions and net zero	• Attractive investment opportunities in carbon removals, pellet production and dispatchable generation • Investment opportunities aligned with country-level climate policies and rising value of carbon
Clear capital allocation policy	• Longstanding policy which supports investment in the existing asset base, growth and returns to shareholders • 11% average annual growth in dividend per share since 2017 – c.£400m of dividends paid • £200m of additional returns via share buybacks – £50m (2018/2019), £150m in 2023 (in progress)

Strong cash generation from existing assets underpins investment for growth

Net debt to Adjusted EBITDA below 2x in 2031



c.£7bn of strategic investments

- 14Mt of BECCS, pellet plants and pumped storage
- Investment high point 2026-2029, de-lever quickly thereafter, below 2x by 2031
- Significant free cashflows from strategic investments supports further investment opportunities

Investment returns and funding options

- Targeting double digit returns
- High-quality strategic assets and project portfolio provides range of attractive funding options

Long standing capital allocation policy

- Committed to paying a growing and sustainable dividend throughout and return of surplus capital in line with policy

1) Free cashflow from existing business = Adjusted EBITDA less interest, tax, Electricity Generator Levy, dividend and maintenance capex.

2) Free cashflow from strategic investments = Adjusted EBITDA less interest and tax.

Strategic objectives closely aligned with climate solutions, net zero and energy security
c.£7bn of attractive opportunities for long-term growth and value creation for stakeholders

	Description	Capital investment	Risk/Return
Carbon Removals	14 Mt of carbon removals by 2030 2 sites selected and moving to option in US South – targeting c.6Mt by 2030 - Evaluating 9 additional sites in US for green and brownfield BECCS - MoUs agreed for sale of >2Mt 8Mt of carbon removals at Drax Power Station by 2030 - Option for CCS on a pellet plant	c.£5.5-6.0bn	↑ Higher ↓ Lower
Pellet Plants	Targeting 8Mt of production capacity by 2030 c.3Mt of new capacity	c.£0.5-1.0bn	
Pumped storage expansion	600MW expansion by 2030 - Multiple earnings sources aligned with growing system need - Underpinned by long-term earnings stability via a cap and floor mechanism	c.£0.5bn	

Wide range of attractive funding options: reinvestment of cash generated (from existing assets and strategic investments), issuance of new debt in-line with balance sheet targets and other sources of funding including project finance

New-build BECCS – US



Renewable power generated:

c.2TWh

of 24/7 renewable baseload power



Carbon captured:

c.3Mt

of carbon sequestered pa



Capital investment c.\$2bn

- New build c.300MW power station with BECCS located close to fibre source and access to T&S
- Higher capex than retrofit but lower opex



Operating costs:

- Use of **wood chip** and proximity to sustainable fibre source reduces transportation costs and removes need for pelletisation
- T&S varies by project and region



Remuneration:

- Long-term Power Purchase Agreements
- 45Q = \$85/t annual direct pay tax credit for CO₂ permanently removed and stored over 12-year period
- Forward sale of CDRs underpins FID (3m CDRs available per year)



Risk and return

- Commercial structure supports higher returns but requires forward sale of significant volume of CDRs to underpin FID and support financing options
- Reduced FX risk
- Target long-term fibre agreements before FID

BECCS in the UK – Drax Power Station



Renewable power generated:

c.4TWh

of 24/7 renewable baseload power



Carbon dioxide captured:

c.4Mt

of carbon sequestered pa



Capital investment c.£1bn

- Retrofit existing biomass unit
- Lower capex than new build but higher opex



Operating costs:

- Use of **biomass pellets** increases production and transportation cost
- T&S offtake agreement



Remuneration:

- Long-term CfD agreement with UK Government with payment for renewable power generated and carbon captured, linked to UK CPI



Risk and return

- Government backed contract with long-term revenue visibility but lower returns
- CfD required to cover market price of biomass and FX risk to underpin project returns

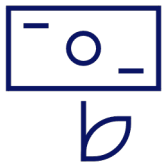
Implemented in 2017, designed to support strategy



1. Maintain credit rating



2. Invest in core business



3. Sustainable and growing dividend



4. Return surplus capital beyond investment requirements

A sustainable long-term business model leveraging on our biomass expertise and objectives aligned with climate solutions, net zero and energy security

A purpose led company

A strategy delivering for shareholders as well as climate, nature and people

Proven financial performance

Attractive portfolio of investments opportunities

A disciplined approach to capital allocation

Carbon Removals

Objective 1: to be a global leader in carbon removals

Pellet Production

Objective 2: to be a global leader in sustainable biomass pellets

Dispatchable, Renewable Power

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

Drax Group Capital Markets Day

May 2023



drax

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"), 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 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; uncertainty as to future investment and support achieved in enabling the realisation of strategic aims and objectives; and/or general economic conditions or conditions affecting the relevant industry, both domestically and internationally, being less favourable than expected, including the impact of prevailing economic and political uncertainty. 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.