



Green Gas & Carbon Capture

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Policy advisor

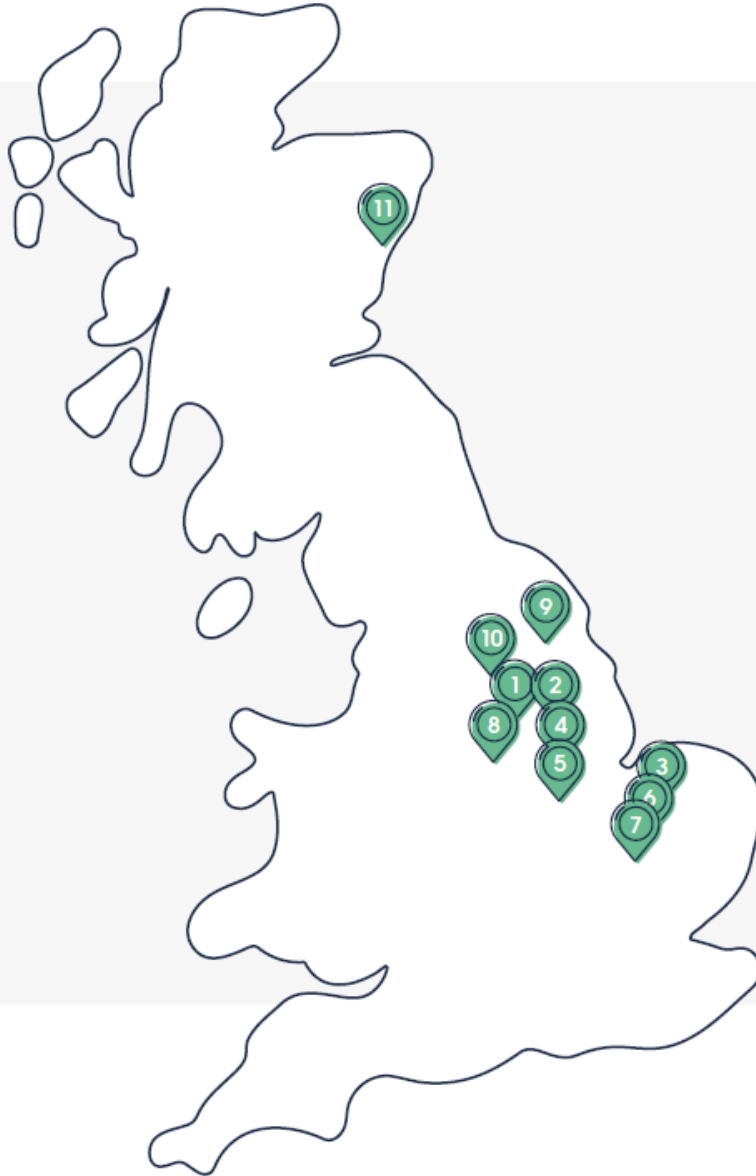
June 2022 2

Largest Biomethane Producer in the UK



11

AD Plants



Green Gas

489 GWh/per year capacity



Clean Electricity

73 GWh/per year capacity

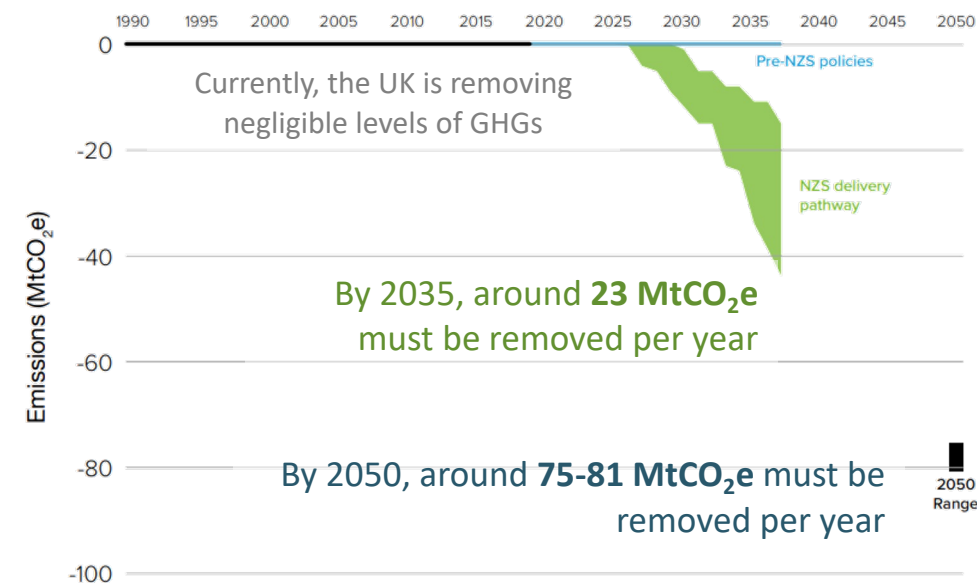
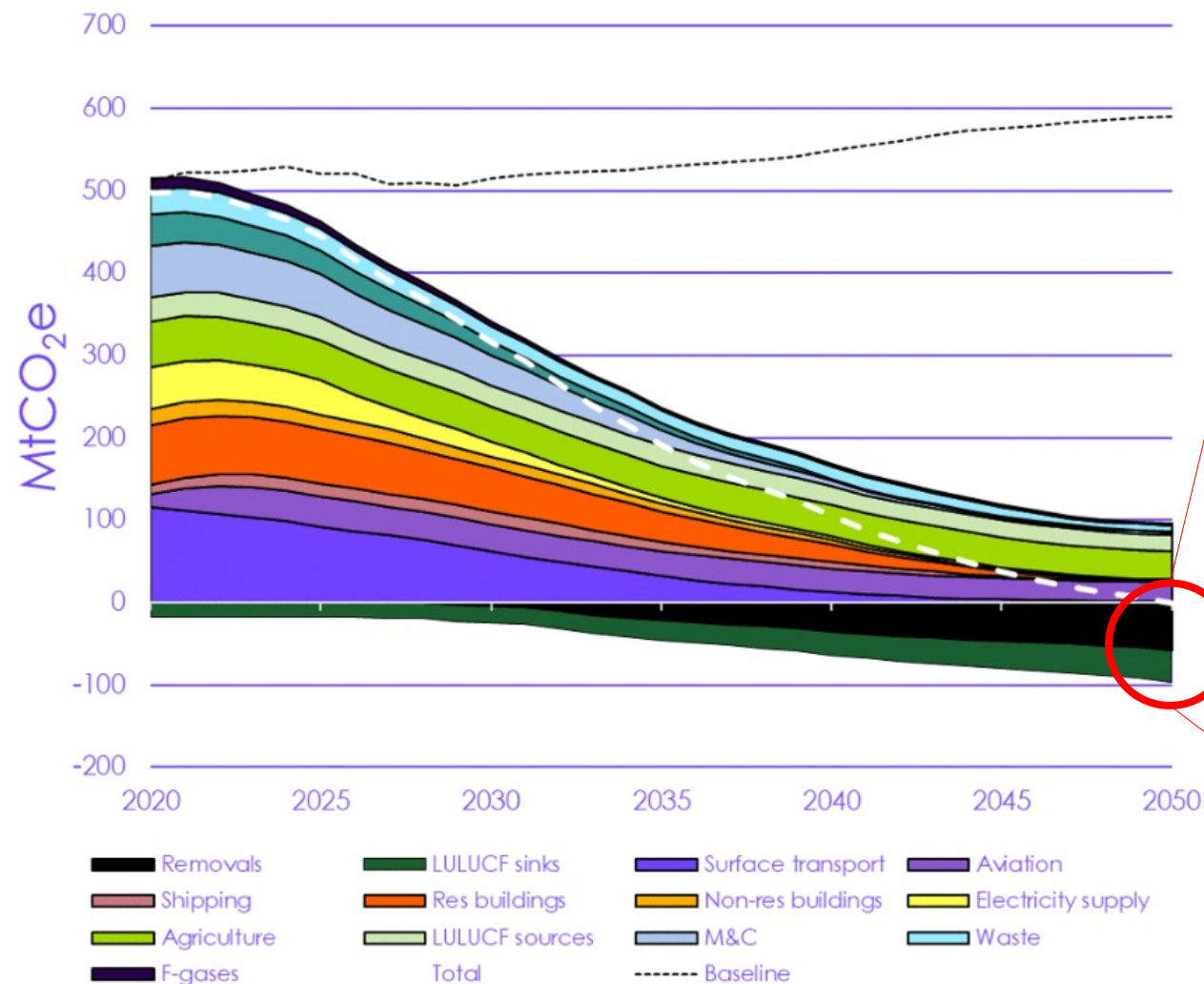


Working with over

400 farmers

GHG removal and Net Zero

UK balanced pathway GHG emissions



GHG removals

Engineered removals

- + Permanent removal
- + Low risk of re-release
- + High integrity
- Expense (at present)



Carbon is derived from the atmosphere and captured within an AD tank.
Bio-CO₂ can be liquefied and stored within geological storage.

Nature-based removals

- + Cheaper
- + Positive externalities
- Not permanent
- Difficult to quantify

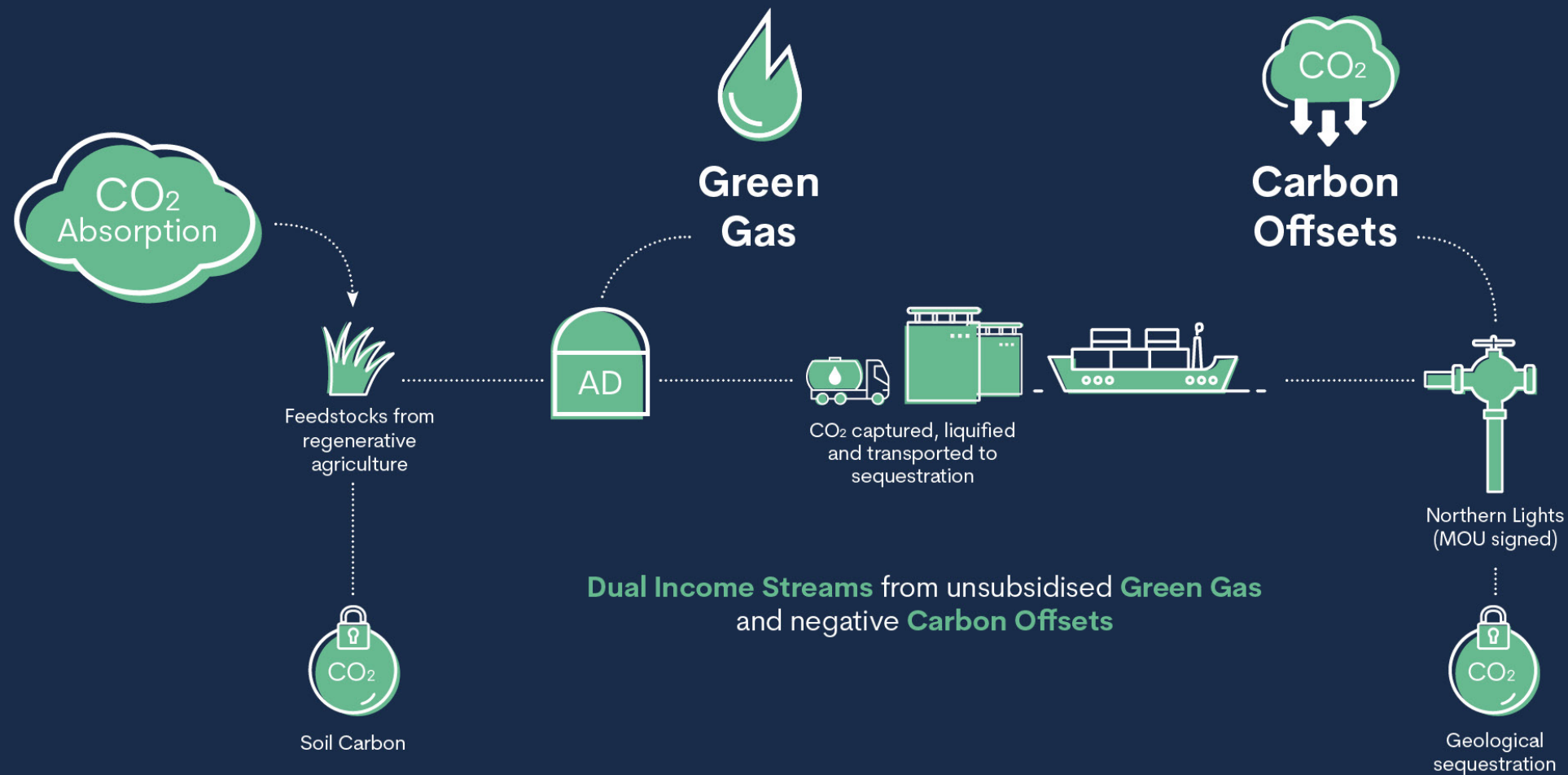


Carbon-rich digestate spread back to land, sequestering biogenic carbon in soils



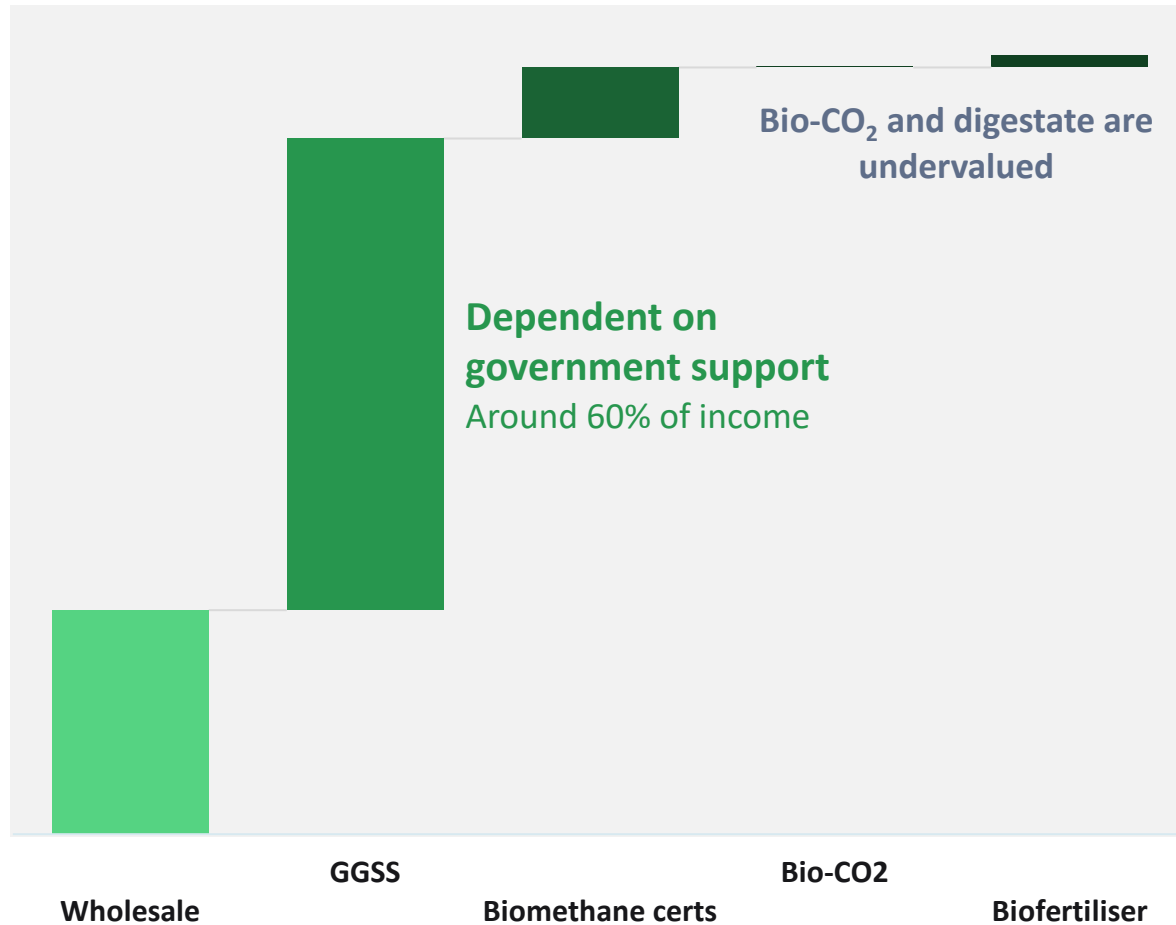
Sustainable agricultural practices reduce maintain higher levels of soil carbon

Bio-CO₂: the key to AD's future

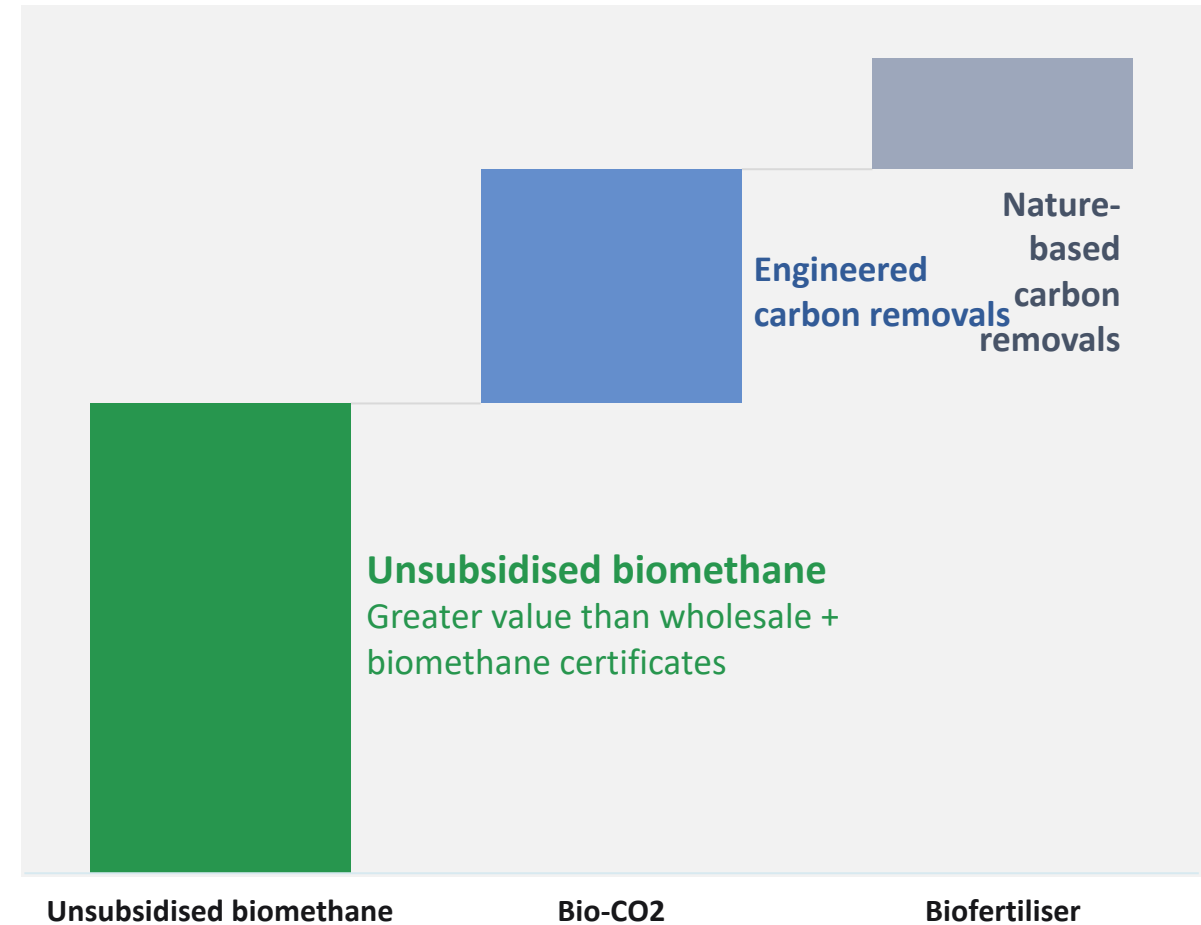


Shifting focus to Net Zero targets

Conventional AD income revenue streams

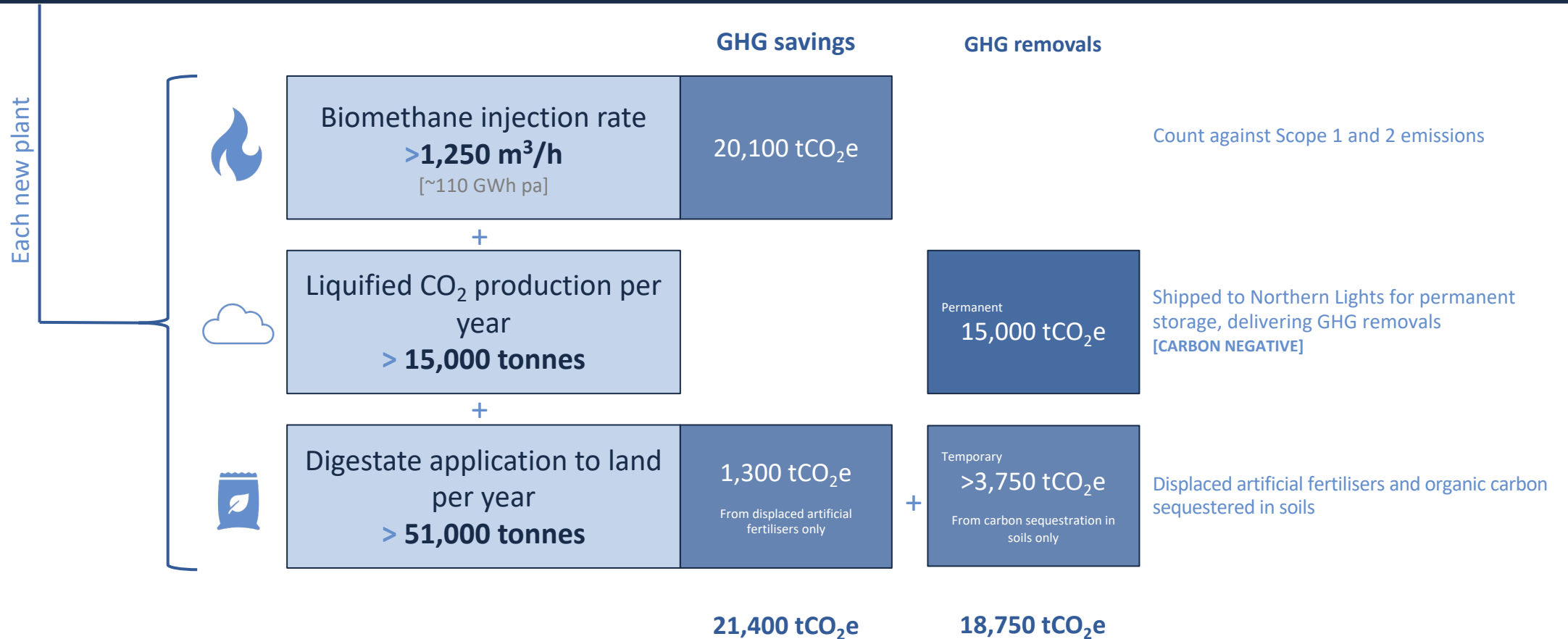


BECCS plant revenue streams



Project Carbon Harvest

25 new BECCS plants...



... each fed by **zero-carbon crops** grown under long-term contracts with sustainable farmers.

Placing farms at the heart of GGR

Much of the current agricultural system is **NOT** sustainable

- High use of carbon-intensive, artificial fertilisers
- High use of pesticides and herbicides
- High rates of soil degradation
- Low levels of biodiversity

AD can be integrated into sustainable agriculture

- + Recycling nutrients
- + Restoring soil health
- + Returning carbon to soils
- + Enhancing biodiversity

Focusing on sustainably agriculture is key to unlocking full potential of AD – benefiting all parties:

Farmer



- Diversify income
- Improve soil structure
- Reduce demand for fertilisers

AD plant



- Rewards for environmental services
- Improves feedstock security
- Removes dependence on subsidies

UK



- Supports delivery of Net Zero
- Enhance **food security** and **energy security**
- Creates jobs in the rural and green economy

Northern Lights Project

CO₂ Sequestration

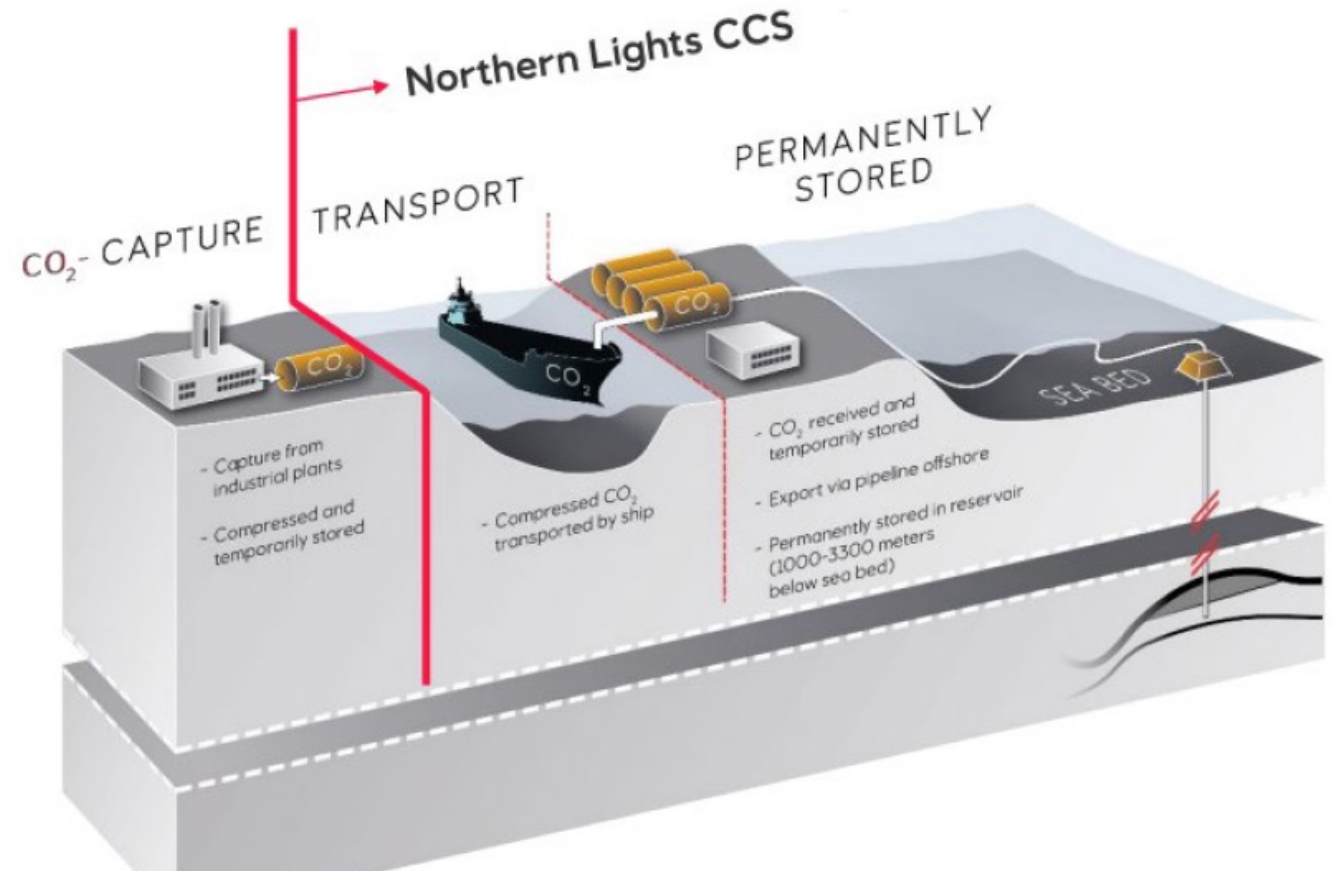
- In construction
- Permanent geological storage
- On schedule for 2024 operations

Northern Lights JV

- JV between Equinor, Shell and Total
- 16.8bn NOK (£1.4bn) funding from Norwegian State



TOTAL equinor



Project Carbon Harvest aims to:

- **Remove 375,000 tonnes bio-CO₂** per year
- **Generate 2.75 TWh unsubsidised biomethane** per year

Thank you

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