

# An introduction to our role



# Our CFD Portfolio

LCCC is managing 57 CFDs with an estimated value of around £76bn<sup>†</sup>. The counterparties are contracted to build and operate over 13GW of new low carbon capacity by the mid-2020s.

Offshore Wind	24	●
Onshore Wind	15	●
Advanced Conversion Technology	8	●
Dedicated Biomass with CHP	3	●
Solar PV	2	●
Biomass Conversion	2	●
Energy from Waste with CHP	2	●
Nuclear	1	●
Operational facility		⚡

Walney Phase 1  
19/12/2017\*  
330MW

Burbo  
11/04/2017\*  
258MW

Edinburgh

Newcastle upon Tyne

Leeds

Manchester

Nottingham

Birmingham

Triangle Farm  
18/07/2017\*  
10.9MW

Hinkley

Dudgeon Phase 1  
27/04/2017\*  
90MW

Dudgeon Phase 2  
02/08/2017\*  
210MW

Dudgeon Phase 3  
01/10/2017\*  
102MW

\* Dates for projects that became operational in 2017/18

<sup>†</sup> including the value of the Hinkley Point C Nuclear CFD.

# Our role in the energy transition



**Neil McDermott**  
Chief Executive

“Our vision is to be at the heart of the delivery of the UK’s goals for secure, affordable and sustainable electricity.”

**Low Carbon Contracts Company (LCCC)** is an independent, not-for-profit company, wholly owned by the Secretary of State for Business, Energy and Industrial Strategy (BEIS). The company carries out two key roles that are central to the delivery of the government’s objective of “ensuring that the country has secure energy supplies that are reliable, affordable and clean”<sup>1</sup>.

## CFD Counterparty

LCCC manages Contracts for Difference (CFD) with low carbon electricity generators under the CFD scheme<sup>2</sup>. This also involves managing the Supplier Obligation Levy that funds CFD payments, which we forecast using sophisticated models.

## Capacity Market Settlements Body

In addition, we carry out the obligations of the CM Settlement Body<sup>3</sup> to manage Capacity Market payments on behalf of our sister company, **Electricity Settlements Company (ESC)**. This includes holding credit cover for Capacity Auction participants and conducting meter assurance.

Key to both roles is providing feedback to BEIS on the schemes – and to Ofgem on the Capacity Market rules – to support them in making improvements in line with our guiding principles.

LCCC's Guiding Principle is **to maintain investor confidence** in the CFD scheme and **minimise costs to consumers**.<sup>4</sup>

ESC's Guiding Principle is **to maintain market participants' confidence** in the Capacity Market settlement process and **minimise costs to consumers**.<sup>5</sup>

<sup>1</sup> BEIS Single Departmental Plan, published December 2017: <https://www.gov.uk/government/publications/department-for-business-energy-and-industrial-strategy-single-departmental-plan/department-for-business-energy-and-industrial-strategy-single-departmental-plan>

<sup>2</sup> Reference is made to the Energy Act 2013 and the CM related regulations. The regulations are available at: <http://www.legislation.gov.uk/all?title=ELECTRICITY%20CAPACITY>

<sup>3</sup> Reference is made to the Energy Act 2013 and the CFD related regulations. The regulations are available at: <http://www.legislation.gov.uk/all?title=Contracts%20for%20Difference%20regulations>.

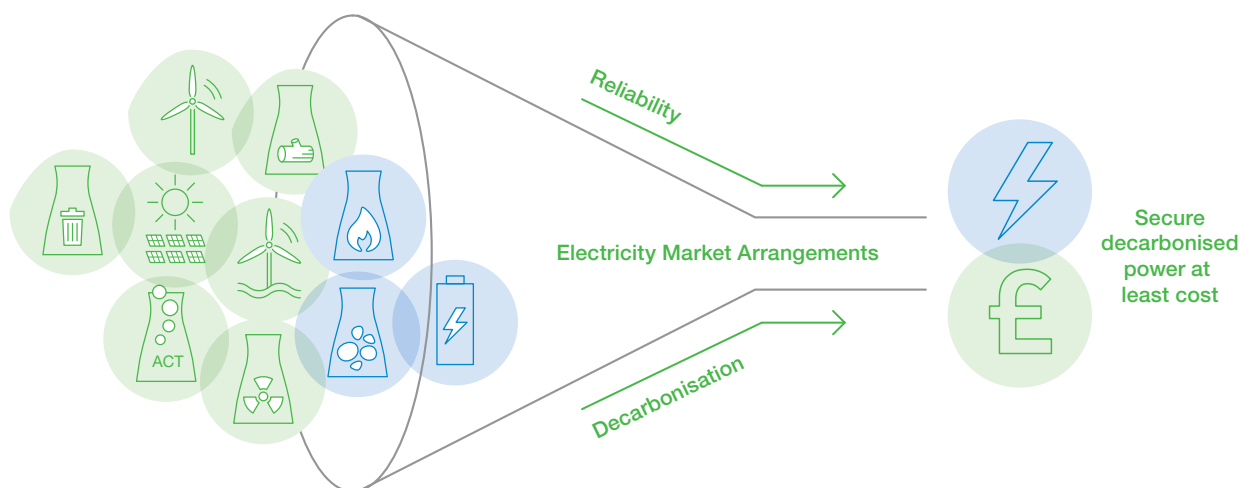
<sup>4</sup> LCCC Framework Document, available at <https://lowcarboncontracts.uk/corporate-governance>

<sup>5</sup> ESC Framework Document available at <https://lowcarboncontracts.uk/corporate-governance>

## Our Schemes

### Reliable, affordable and clean

The CFD and Capacity Market schemes were designed by the government as “market based” incentives that would work within the structure of the existing electricity market to contribute to the government’s objective of **clean** and **reliable** electricity, using competition to deliver **affordability**.



In 2017 both schemes became fully operational, with LCCC making payments to operational CFD generators and, on behalf of ESC, to capacity providers across Great Britain. Outcomes in support of policy objectives are beginning to emerge.



©Ørsted

Walney Extension offshore wind farm, located around 19km off the coast of Cumbria, in the Irish Sea. According to Ørsted, the wind farm will be capable of generating enough clean electricity to power more than half a million UK homes each year.

<http://walneyextension.co.uk>

# Our Schemes

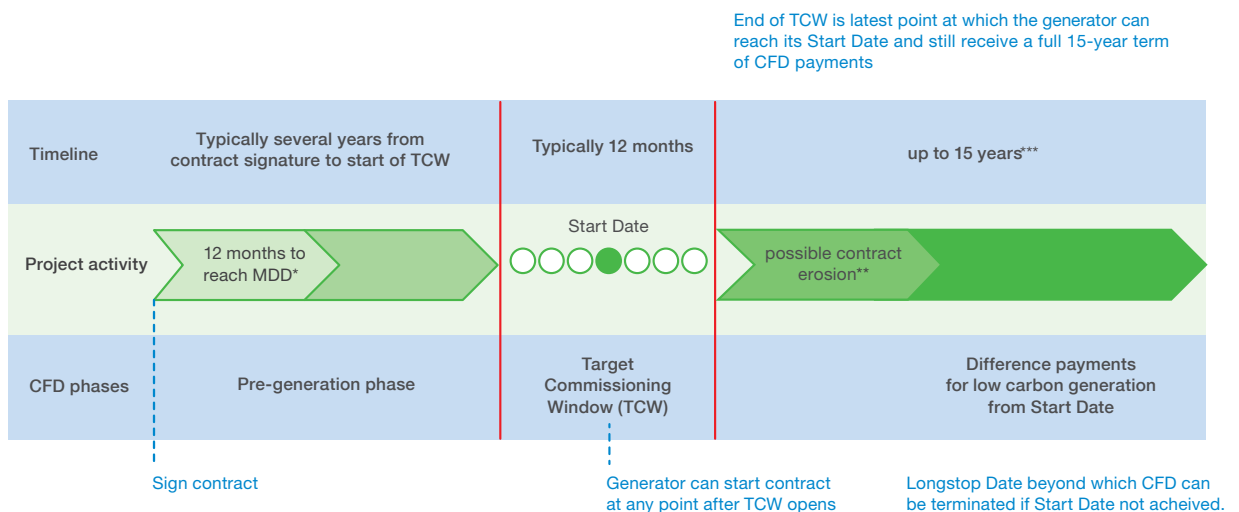
## CFD Overview

A CFD is a long term contractual agreement between a low carbon electricity generator and LCCC, designed to provide the generator with price certainty over the lifetime of the contract.

The contract is awarded through a competitive allocation process which determines the pre-agreed price (the “Strike Price”).

The CFD generator then has a number of milestones to meet within the first few years of the contract in order to preserve the term for payments, which is typically 15 years. This includes proving commitment to the project within 12 months of contract signing, and commissioning 80% of the initial capacity estimate within the target commissioning window (see Figure 1).

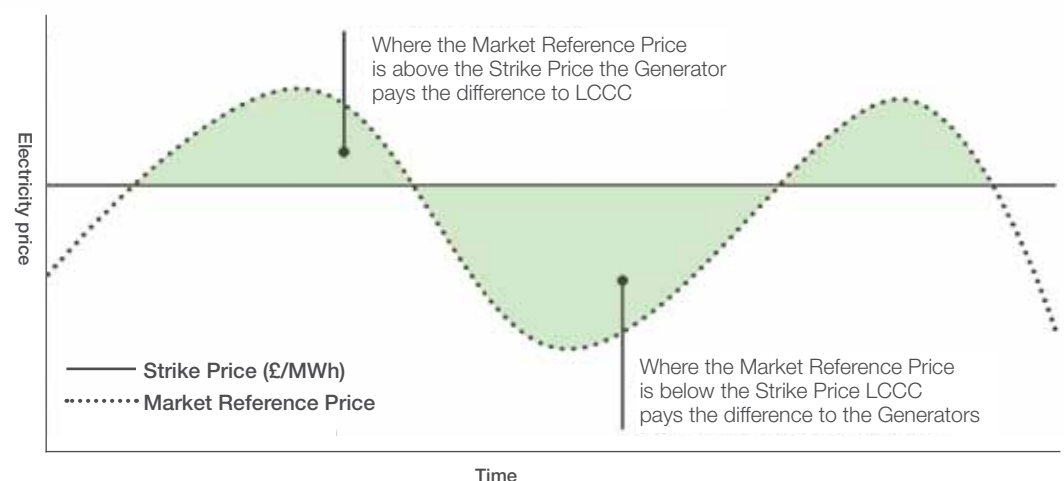
**Figure 1: Stages and processes of a CFD 15-year life cycle**



\*MDD: Milestone Delivery Date by which project must have met 10% spend or significant financial commitment requirements (see glossary)  
 \*\*contract erosion is possible if Start Date is after end of TCW  
 \*\*\*CFD expires 15 years after the earlier of either the Start Date or the TCD

Once 80% of the generating capacity is operational, a two-way payment process is established to award “difference payments” for the remaining term of the contract. In cases where the Market Reference Price (MRP) is less than the Strike Price, LCCC makes a difference payment to the CFD generator. Where the Market Reference Price is greater than the Strike Price, the CFD generator pays LCCC the difference (see Figure 2).

**Figure 2: CFD difference payments**



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## Our Schemes

### CFD Supplier Obligation Levy

Electricity suppliers are required by regulation to fund the CFD payments made by LCCC to generators through the CFD Supplier Obligation Levy. We determine one quarter in advance of each quarter what amount will be needed in that quarter to make difference payments to generators, and set the Levy accordingly. LCCC is also required to collect a Reserve Amount from each electricity supplier, which is also based on assumed levels of electricity generation. We are able to reduce the levy and also the Total Reserve Amount prior or during a given quarter, if assumptions change due to events. We publish all of our quarterly assumptions in the Transparency Tool, accessible via our website.



©Equinor

The installation vessel Sea Challenger behind the very first turbine installed at Dudgeon Offshore Wind Farm.  
Photo: Rix Leopard-Byron Price.



©Bouygues Energies & Services.

Triangle Farm, the 12MW solar farm at Soham, built by Cambridgeshire County Council and Bouygues Energies & Services, started generating in 2017, thanks to CFD support from LCCC.

[www.bouygues-es.co.uk](http://www.bouygues-es.co.uk)



## Our Schemes

### Capacity Market Overview

The Capacity Market was introduced to ensure that there is sufficient investment in the overall level of reliable capacity to provide secure electricity supplies to meet peak demand - for example, during cold, windless periods. It is designed to use competition to achieve a defined level of electricity security in Great Britain at the lowest cost to consumers<sup>6</sup> and also to support the development of more active demand management in the electricity market.

'Capacity Payments' are made by ESC to either generators or Demand Side Response providers throughout the year on a monthly basis in return for the delivery of electricity or reduction of demand at times of system stress. These capacity arrangements help to keep the lights on across Great Britain.

### Capacity Market Settlement

LCCC has continued to deliver Capacity Market settlement and related activities on behalf of its sister company, the Electricity Settlements Company, via a cost-sharing arrangement. ESC's role is to oversee the settlement of the Capacity Market to ensure that regular payments are made to capacity providers who have agreed to provide capacity at times of system stress, to provide meter assurance for sites not already validated by the Balancing System Code operator and also to enable volume reallocation required for secondary trading, which is permitted between those capacity providers who have under – or over – delivered their obligation during a stress event.

Participants in the Capacity Market ('capacity providers') can be new or existing generators, electricity storage providers and significant users of electricity who provide voluntary demand reduction.



©Gateshead Council and Flexitricity

One of the Gateshead Energy Centre CHP engines, fulfilling a capacity agreement via Flexitricity



©2018 Low Carbon: <http://www.lowcarbon.com>

Glassenbury battery storage park, a 40MW storage project in Kent, was awarded a three-year capacity agreement in 2016 and became operational in 2018.

<sup>6</sup> BEIS Publication: "Capacity Market Consultation – Improving the Framework", published December 2017: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/664272/capacity-market-consultation-improving-framework-response.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/664272/capacity-market-consultation-improving-framework-response.pdf)

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## Building on our strengths



**Ruth Herbert**  
Director of Strategy  
& Development

“Our 2018 strategy review provided us with the opportunity to refresh our mission to increase our outward focus, including by finding ways to provide added value to our key stakeholders.”

Our competitive CFD and Capacity Market schemes are successfully delivering reliable capacity and low carbon generation, significantly below expected costs. We have played a central role in supporting the development of these schemes and are very proud of this success.

However, the electricity market continues to transform as we transition towards a more decentralised, decarbonised and digital energy and transport system. So it is right that we, as an organisation, continue to evolve alongside it.

We reviewed our company strategy during 2017/18. The review confirmed that our vision remains appropriate. Our strategy sets out how we intend to use the strong foundation of our ‘Delivery Excellence’ to develop as a ‘Centre of Expertise’ and ‘Trusted Advisor’ on scheme development and implementation. This will enable LCCC to position itself to assist government and industry in navigating the inevitable changes ahead for the electricity market as the market adapts to become more flexible, localised and digitalised.

Our new operating model reflects these new strategic priorities, placing greater emphasis on our unique scheme management capabilities and ensuring that policy interpretation and change management – key to our continual translation of policy into action – are supported by insight and analytical capability to exploit fully our electricity market scheme data. We believe this places us in a strong position to participate in the future evolution of the electricity market.



©Energy Works Hull

Aerial view of gasifier train, Energy Works, Hull.



# Our Strategy

**Our vision:** is to be at the heart of the delivery of the UK's goals for secure, affordable and sustainable electricity.

**Our mission:** is to implement and develop electricity market schemes, providing operational independence, expertise, insight and leadership.

**Our objectives:** The company strategy is articulated in three fundamental objectives, all of which are underpinned by the company's fundamental "people centric" objective that focusses on motivation of our staff to achieve our strategy and mission. The four strategic objectives will drive the focus of our activities over the next three years.



**LCCC provides:**

- assured delivery of CFD Management and Capacity Market Settlement responsibilities
- strong independent governance
- commercial skills and industry knowledge
- a close working relationship with government, focussed on adding value



**Catherine Gan**  
Chief Finance Officer



**Neil McDermott**  
Chief Executive



**Ruth Herbert**  
Director of Strategy and  
Development



**Claire Williams**  
Director of Legal  
(Company Secretary, DPO)



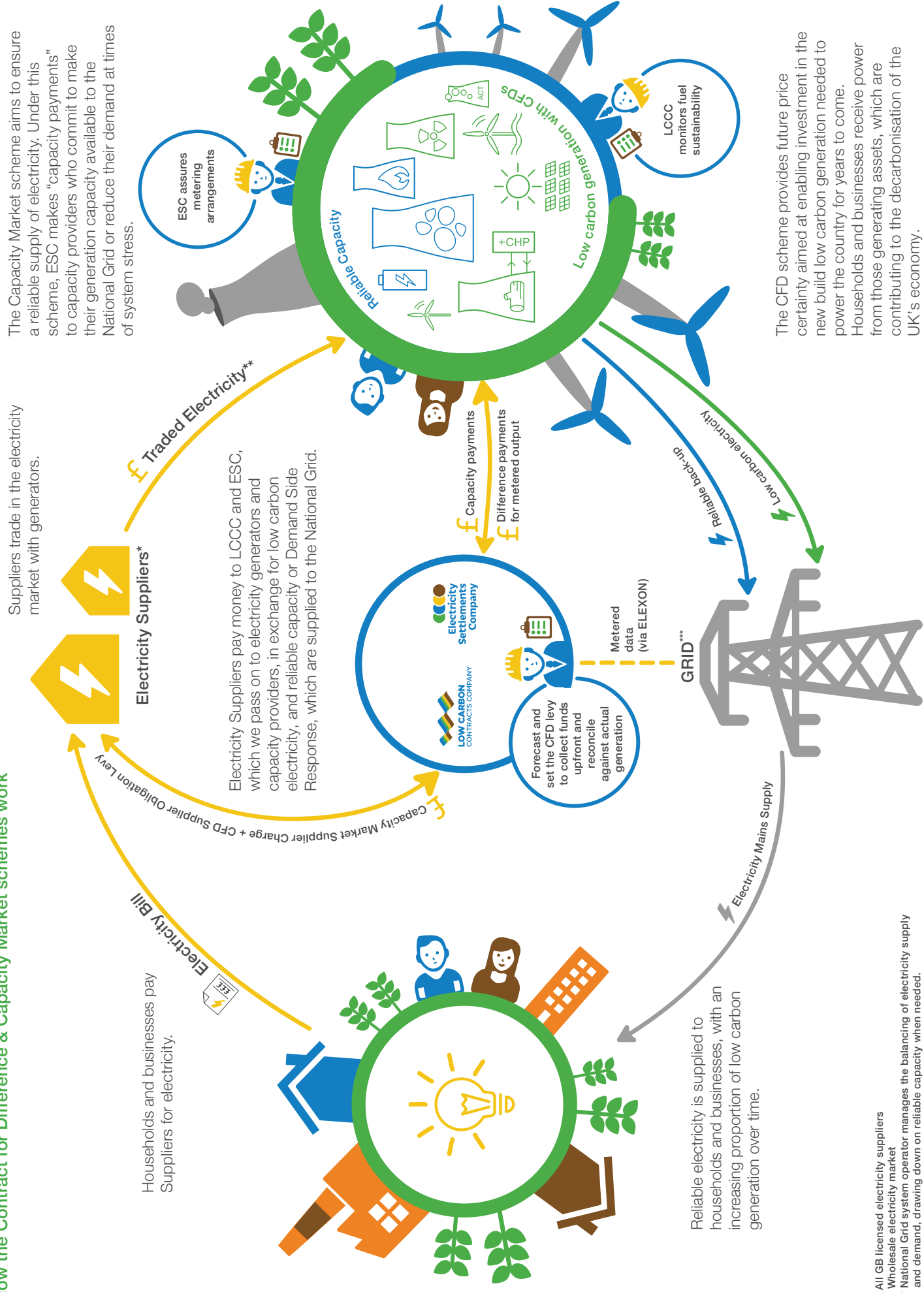
**Cynthia Duodu**  
Director of People and  
Organisation Development



**James Rushton**  
Director of Scheme Delivery



## How the Contract for Difference & Capacity Market schemes work



Suppliers trade in the electricity market with generators.

The Capacity Market scheme aims to ensure a reliable supply of electricity. Under this scheme, ESC makes "capacity payments" to capacity providers who commit to make their generation capacity available to the National Grid or reduce their demand at times of system stress.

Electricity Suppliers pay money to LCCC and ESC, which we pass on to electricity generators and capacity providers, in exchange for low carbon electricity, and reliable capacity or Demand Side Response, which are supplied to the National Grid.

Reliable electricity is supplied to households and businesses, with an increasing proportion of low carbon generation over time.

The CFD scheme provides future price certainty aimed at enabling investment in the new build low carbon generation needed to power the country for years to come. Households and businesses receive power from those generating assets, which are contributing to the decarbonisation of the UK's economy.

\* All GB licensed electricity suppliers

\*\* Wholesale electricity market

\*\*\* National Grid system operator manages the balancing of electricity supply and demand, drawing down on reliable capacity when needed.

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Fleetbank House  
2-6 Salisbury Square  
London EC4Y 8JX  
[lowcarboncontracts.uk](http://lowcarboncontracts.uk)

Company registration number: **08818711**