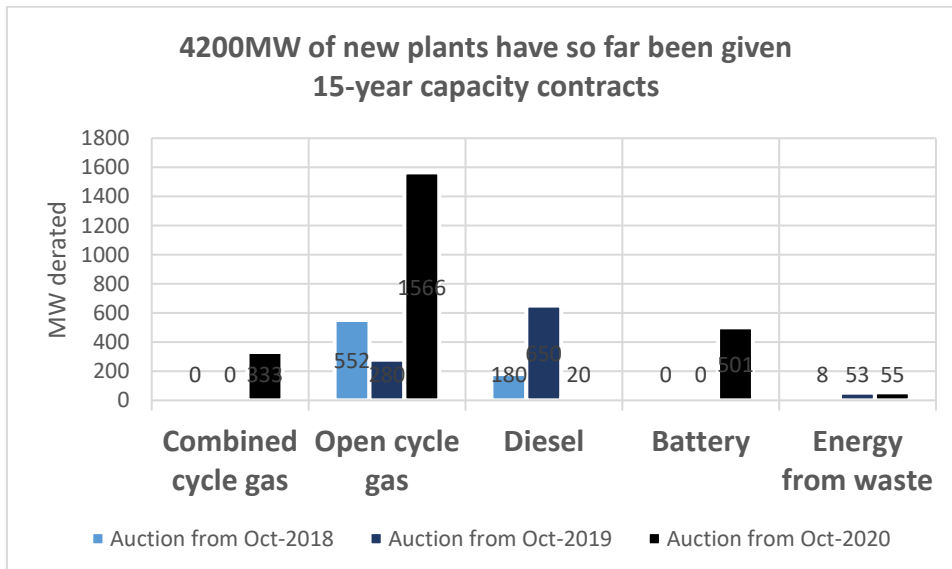


UPDATE 9-MARCH 2017: BEIS confirms <20MW new plant was diesel.

That means, of 2648MW given 15-year contracts...

- <20MW diesel
- 1899MW gas. Of which-
 - 333MW CCGT (on existing King’s Lynn CCGT site)
 - 299MW peaking open cycle gas (at Spalding)
 - 1287MW of small peaking open cycle gas (84 installations; sized 2MW to 47MW)
- 501MW battery
- 55MW energy from waste
- 173MW refurbished pump storage at Ffestinog

This means that over the last 3 auctions, there is now 4.2GW of new capacity that has been given 15-year contracts. It is as follows:



The UK capacity market auction provisional results for October-2020 to September-2021 were announced [here](#) today, and the government response [here](#).

Sandbag has also produced our mini-briefing [here](#), analysing and commenting on the auction results.

Is the Capacity Market slowing UK decarbonisation?

		MW derated				£m, based on MW derated	
		1-year contracts	15-year contracts	Not Contracted	Not Qualified	Cost of this auction for 2020-2035	Cost of this auction in 2020/21 alone
Existing	Coal	5,699	0	3,877	0	£128	£128
	Nuclear	7,878	0	0	0	£177	£177
	Interconnector	2,342	0	770	0	£53	£53
	Other existing >100MW	28,603	0	1,496	0	£644	£644
	Other existing <100MW	3,169	0	434	0	£71	£71
	Demand side response	1,411	0	423	314	£32	£32
New	Big gas (>100MW)	468	632	9,002	0	£224	£25
	Small gas (<100MW)	0	737	689	640	£249	£17
	Gas or diesel	52	474	526	2,902	£161	£12
	Diesel	0	76	0	240	£26	£2
	Battery	0	501	65	1,726	£169	£11
	Pump, hydro or waste	154	228	132	48	£80	£9
TOTAL		49,777	2,648	17,413	5,870	£2,014	£1,180

NOTE: The auction results (still!) do not include fuel type, therefore the in order to have meaningful analysis, so we have done our best to split by fuel above, and we are keen to hear of any inaccuracies.

Summary:

So a lot has changed compared to last year's capacity mechanism...

- GAS:** The government changed to contract more capacity, leading to about 1800MW of new gas contracted, comprised of one CCGT and the rest being open cycle gas.
- DIESEL:** The government acted at the last minute over summer to avert a potential huge influx of diesel.
- COAL:** One more large coal plant (EDF's Cottam) pulls out of auction, so only four large coal plant get payments.
- OTHER:** Battery gets its first look-in.
- COST:** The cost of the auction is high but not terrible. It is £1.18 billion for 2020/21, and £2.01 billion if you include the term length of the 15-year contracts arising from today.

"The auction has delivered good results this year, moving slightly away from coal towards battery and gas peaking plant. Small gas peaking gas is arguably more useful than baseload CCGT as we transition to more wind and solar: it provides cheaper capacity (proved by it undercutting CCGT), more locally, and provides reliable peaking power without the risk of running gas baseload, which would undermine our future climate targets. We ask the Government to lay out how they see gas emissions going forward, as we build more gas plant.

The government acted to avert a huge influx of diesel, which is great; these proposals are however work-in-progress, and still need to be implemented.

Further changes need to be made to the capacity auction. First, to ensure coal phases out by 2025 without a large cliff-edge – they received £128m from this auction alone, so would be in no hurry to close. Second, to further encourage battery technology, which will be increasingly important in the transition as the technology develops."

Dave Jones – Analyst at Sandbag

Is the Capacity Market slowing UK decarbonisation?

Analysis:

GAS: The government changed to contract more capacity, leading to about 1800MW of new gas contracted.

The auction was changed to contract more capacity (more details from our March blog [here](#)).

- **BEIS increased the “target” capacity procured by a minimum of 1GW** –the capacity mechanism changes increase system margin to reduce the chances of very occasional, short-term, localised black-outs.
- **BEIS procured all capacity 4 years in advance.** Previously, they allowed 2.5GW to be procured at only the year-ahead stage. This will make it more likely new, rather than existing plant, will be contracted, thus helping modernise the system.
- **BEIS increased the penalty payments.** Previously, these have not been very punitive, and have led to contracted capacity renegeing on their contracts, meaning if new capacity is contracted, it is more likely to make sure to be built.

We estimate there is 1843MW of new gas plant awarded 15-year contracts in the capacity auction.

- **333MW Centrica’s King’s Lynn CCGT.** This is on the site of the previous CCGT, not entirely clear what, if any, of the previous CCGT Centrica are planning on re-using.
- **299MW Spalding OCGT.**
- **1211MW of small open cycle gas plant.** Comprises of 80 project between 2MW to 47MW in size. (Some of these may be diesel, but we suspect they are mostly gas.)

DIESEL: The government acted at the last minute over summer to avert a huge influx of diesel.

Roughly over 2/3rds of the diesel that initially bid into the auction in summer withdrew before the auction even started – this is seen in the table on page 1 in the “Not qualified” column.

And although some diesel was awarded 15-year contracts, we think it was not much more than 76MW. This compares to [up to 4GW](#) that initially wanted to bid into the auction.

We are in the 3rd auction now, and still the fuel types are not published, so it is impossible to tell an accurate story of how much has been contracted. We await a BEIS estimate to update our analysis with.

The government’s actions that were largely responsible for the withdraw of capacity were:

- The [proposed air quality rules](#) which were designed to reduce diesel emissions
- [A review to limit some of the benefits of embedded generation](#), including to smear capacity mechanism costs back to embedded generators.
- Proposals to close down two tax loopholes: the venture capital trust (VCT) and enterprise investment scheme (EIS).

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COAL: One more large coal plant (EDF's Cottam) pulls out of auction, so only four large coal plant get payments.

It's been an incredible year for coal. Three coal plants shut down this year, and coal generation has fallen by about 66% year-on-year, and the government has put in plans to bring the 2025 coal phase-out into law.

Also, a further two coal plants were due to close in March – Fiddler's Ferry and Eggborough – but in the end got paid to stay open for this winter. **It is reassuring that neither of these coal plants got 2020/21 capacity contracts, so should still be on schedule for closure soon.** (Eggborough did not bid in the auction, but Fiddler's did.)

Surprisingly, EDF's Cottam also did not get a contract, meaning it may be eyeing up closure. Both of EDF's coal plants rescinded their 3-year contracts initially awarded from Oct2018 to Sep 2021, because they did not meet the investment criteria. That means neither Cottam has no capacity contract after September 2019.

Plant	Owner	Coal Contracted			Coal Without contracts		
		2018/19	2019/20	2020/21	2018/19	2019/20	2020/21
Drax	Drax	1220	1220	1220	610	610	610
Ratcliffe	Uniper	1805	1805	1805	0	0	0
West Burton	EDF	1322	0	1322	441	1763	441
Cottam	EDF	1760	0	0	0	1760	1760
Aberthaw	RWE	1486	1486	1486	0	0	0
Fiddlers ferry	SSE	1325	0	0	425	1750	1750
Eggborough	EPH	0	0	0	1840	1840	1840
TOTAL COAL		8918	4511	5833	3316	7723	6401

OTHER 'HIGHLIGHTS': Battery gets its first look-in.

- **BATTERY:** 501MW of battery got awarded 15-year contracts, which is really encouraging, as it is clear batteries will play a key role in the energy mix going forward, when they become cheaper and can store more energy. Some had already won contracts under the enhanced frequency response auction, but many had not. We are not sure why over 3/4 's pulled out before the auction took place, may be that is sign that still more needs to be done to accommodate batteries in the capacity auction?
- **INTERCONNECTION:** No new interconnectors bid in, but also NEMO, the proposed UK-Belgian interconnector, didn't get the 1-year contract it bid for.
- **PUMP STORAGE:** Ffestiniog got 15-year contracts to refurbish units 1 and 2.
- **WASTE:** 2 small energy from waste projects got 15-year contracts.
- **EXISTING CCGT:** The only CCGT that did not get contracts, also did not get contracts last year – and that is Peterhead and Barry.
- **DEMAND RESPONSE:** 1411MW got 1-year contracts for DSR.

About this briefing

Sandbag is a UK-based not-for-profit think tank conducting research and campaigning for environmentally effective climate policies. Our research focus includes the phase-out of old coal in Europe; deep decarbonisation of industry through technologies including Carbon Capture Utilisation & Storage; reform of the EU Emissions Trading Scheme; and increasing ambition in the EU 2020 and 2030 climate & energy packages.

We are grateful to the **European Climate Foundation** for helping to fund this work. Full information on Sandbag and our funding is available on our website (www.sandbag.org.uk).

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The logo for Sandbag, featuring the word "sandbag" in a bold, lowercase, blue sans-serif font.