



## **GB Plant Performance Summary December 2017**

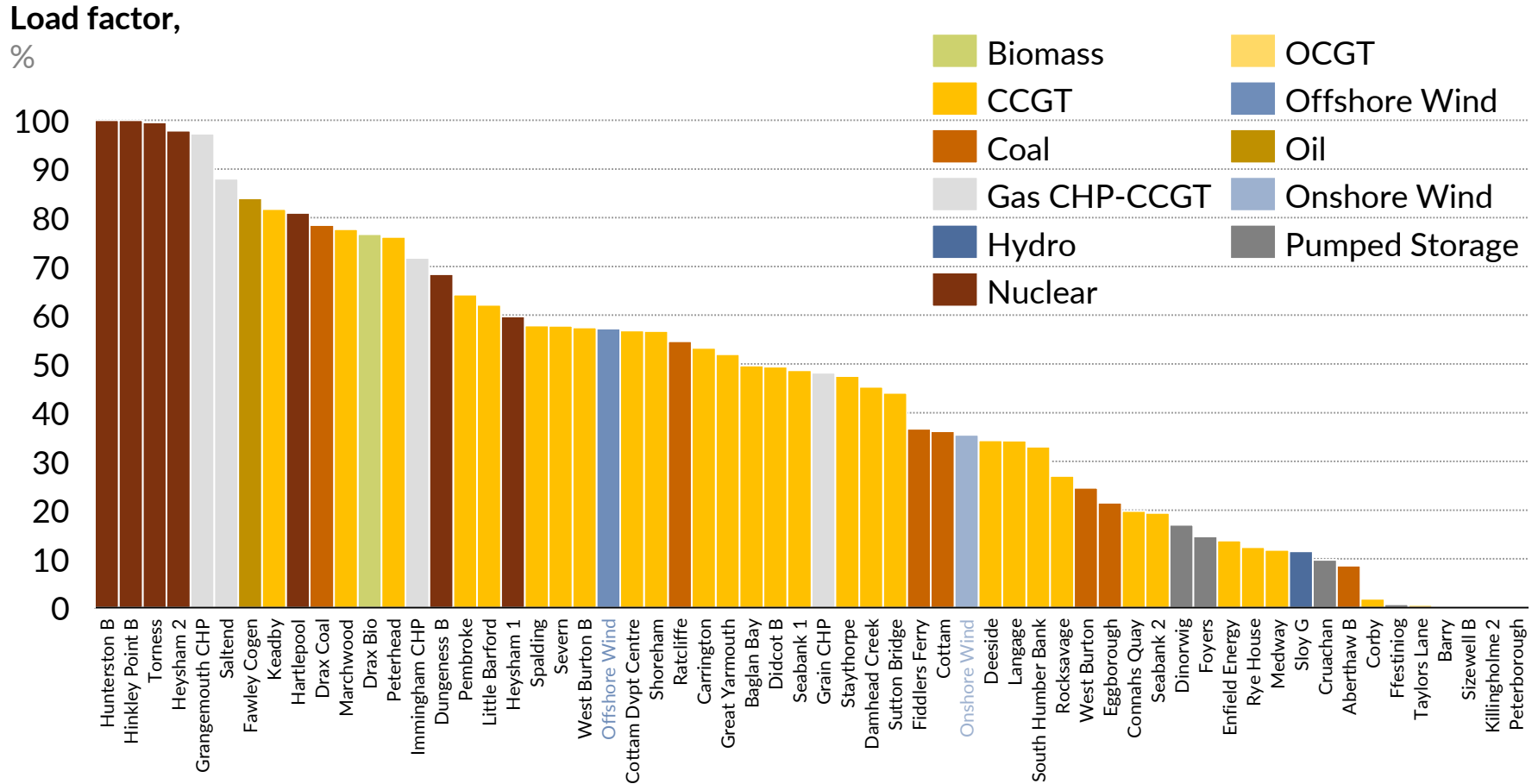
Published January 2018

## Executive summary

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1. Sizewell B was out of operation for the whole of December as its planned outage was extended, and is now due to come back online in February. **See slide 3.**
2. Aberthaw B was the only coal plant running below 20% load factor this month; Drax Coal remained near 80% load factor. **See slide 3.**
3. In tandem with the rise in baseload power price, the average capture price across technologies has risen to £57/MWh. **See slides 7 and 8.**
4. Wind output has risen by over 0.3TWh since November, as offshore wind registers a high average load factor of 57%. **See wind report slides 2 and 7.**

# Plant utilisation – load factors by plant

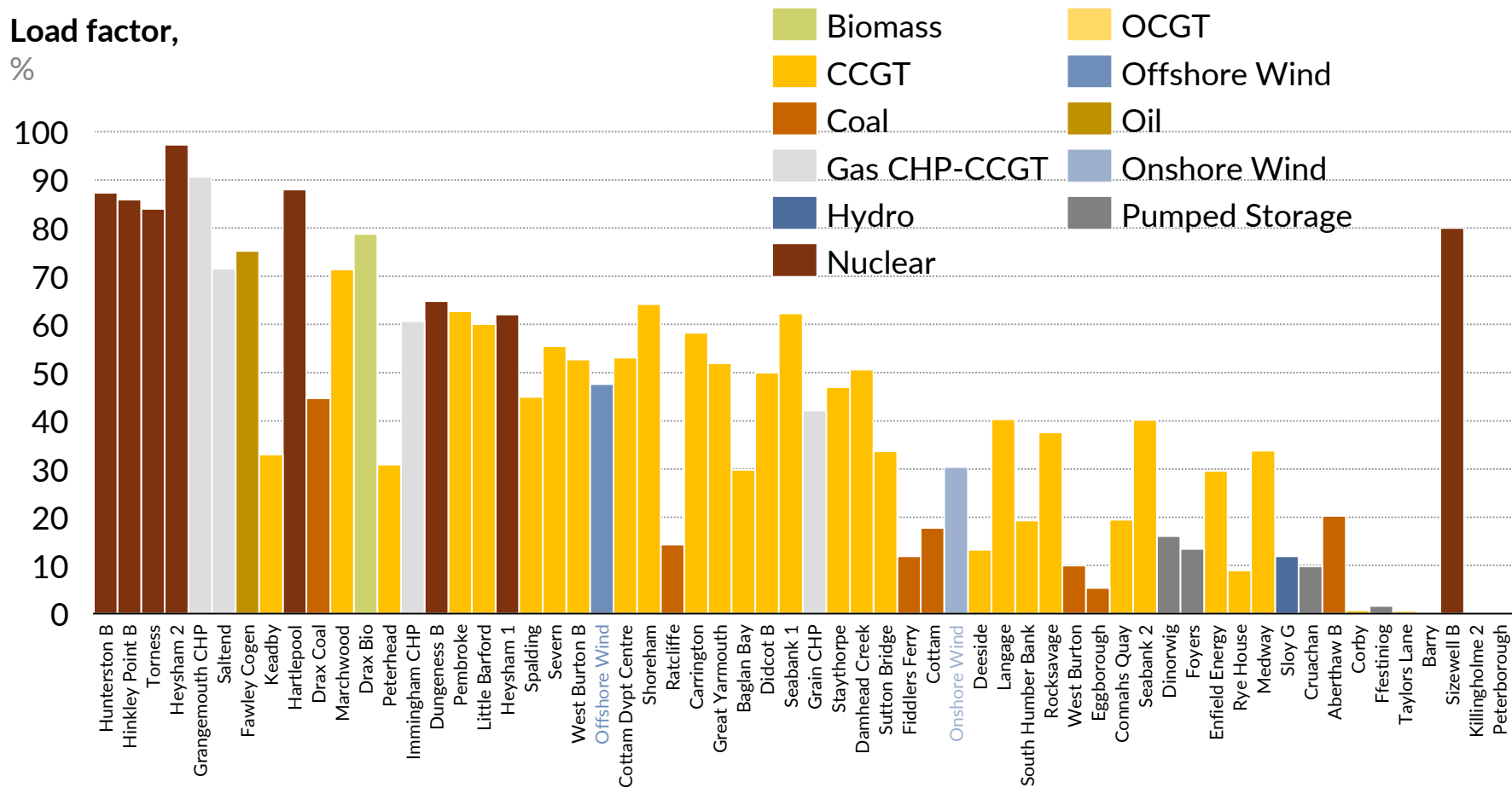


Represents 60 plants with highest capacity according to the Balancing Mechanism (BM) database, as well as aggregated data for offshore and onshore wind farms reporting to the BM. Capacity of each plant represents the sum of capacities of all its generators that have been active at least once in the last three months.

Please refer to slide 10 for the list of onshore and offshore wind farms aggregated into respective categories.

Please refer to Appendix for a detailed description of the data used and categories presented.

# Plant utilisation – average load factors by plant over the last 12 months



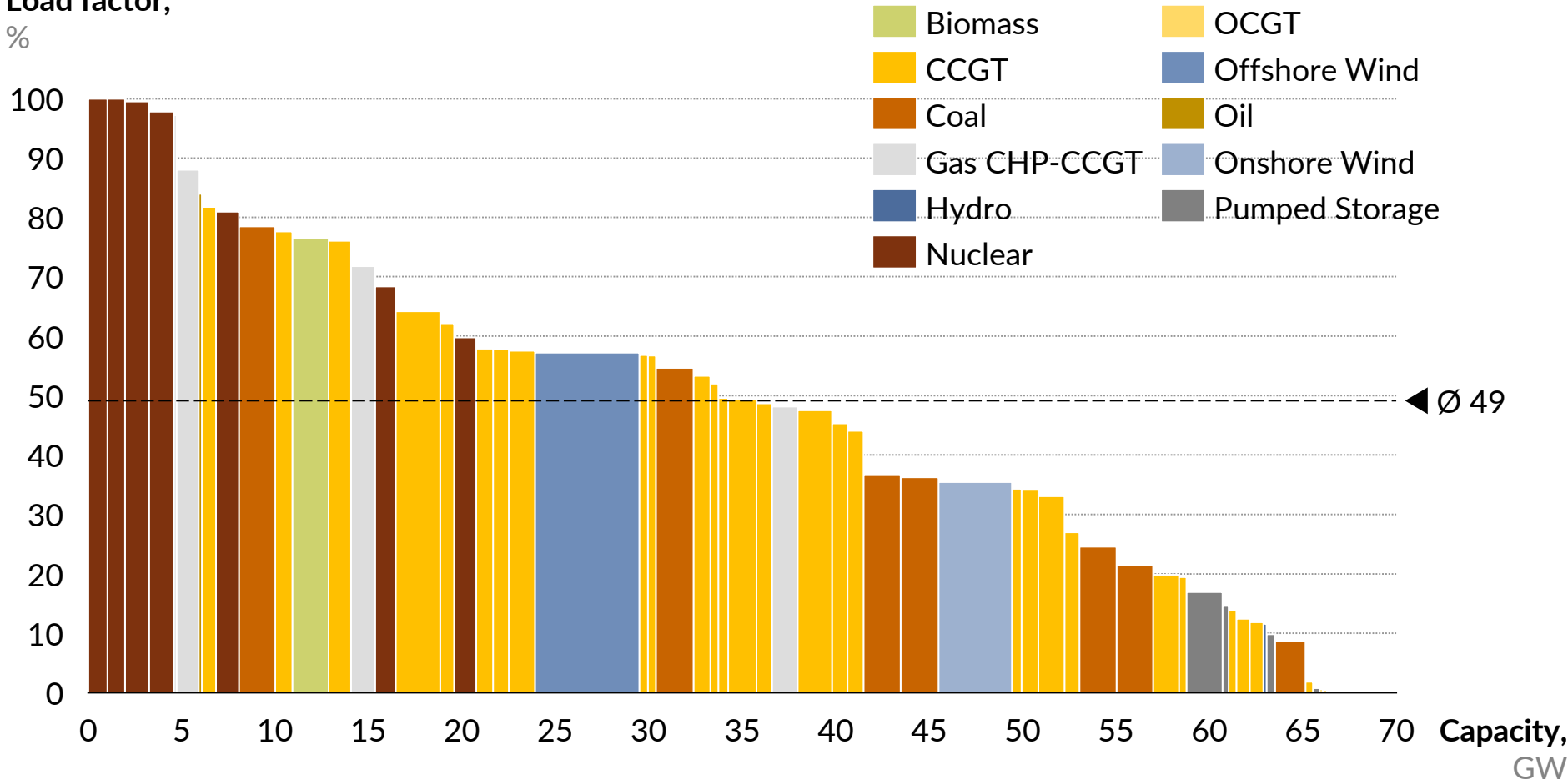
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# Plant utilisation – load factors by plant (column width reflects capacity)

Load factor,  
%



Please refer to slide 3 for plant names.

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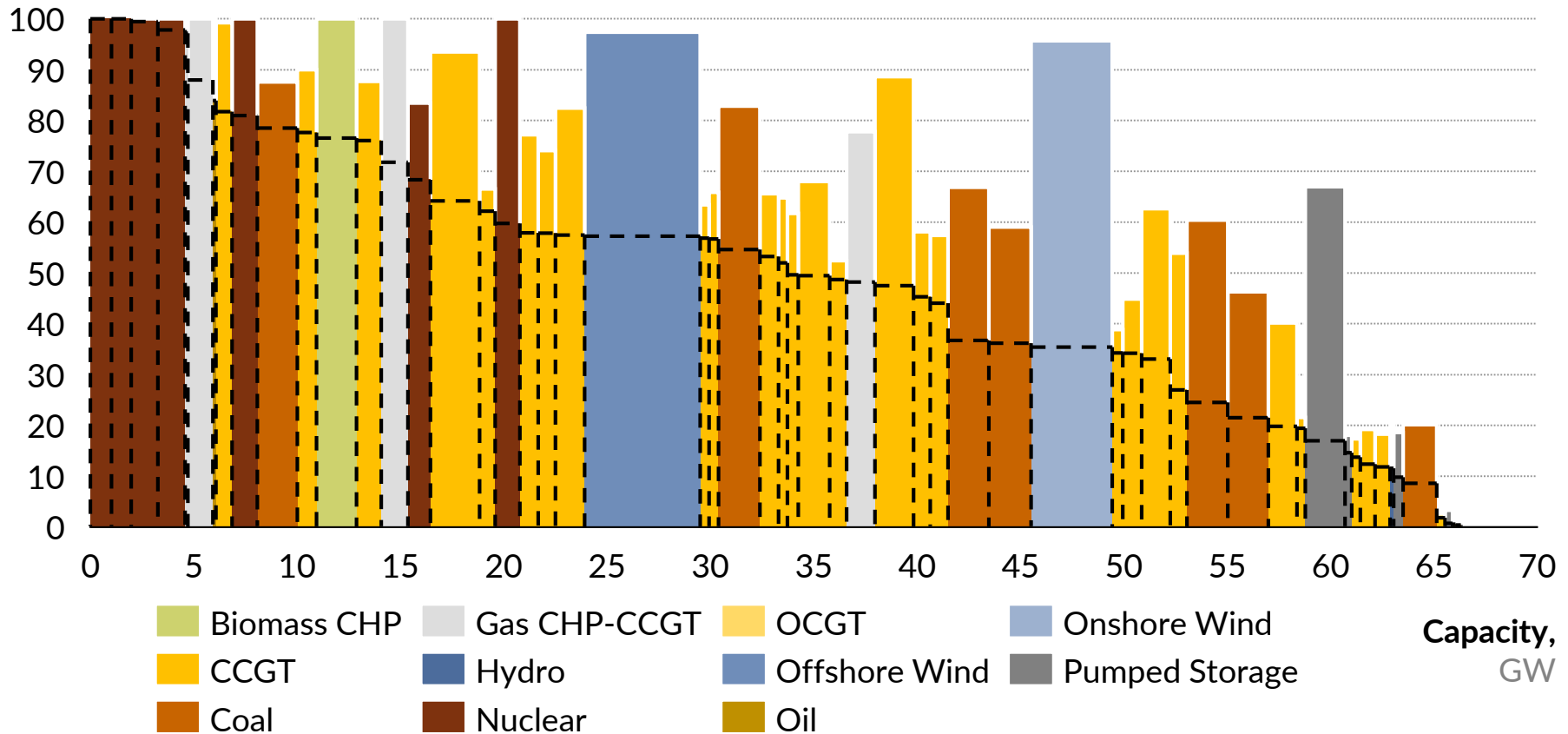
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# Running hours versus load factor

Running hours,  
% of total for the period

Load factor, %



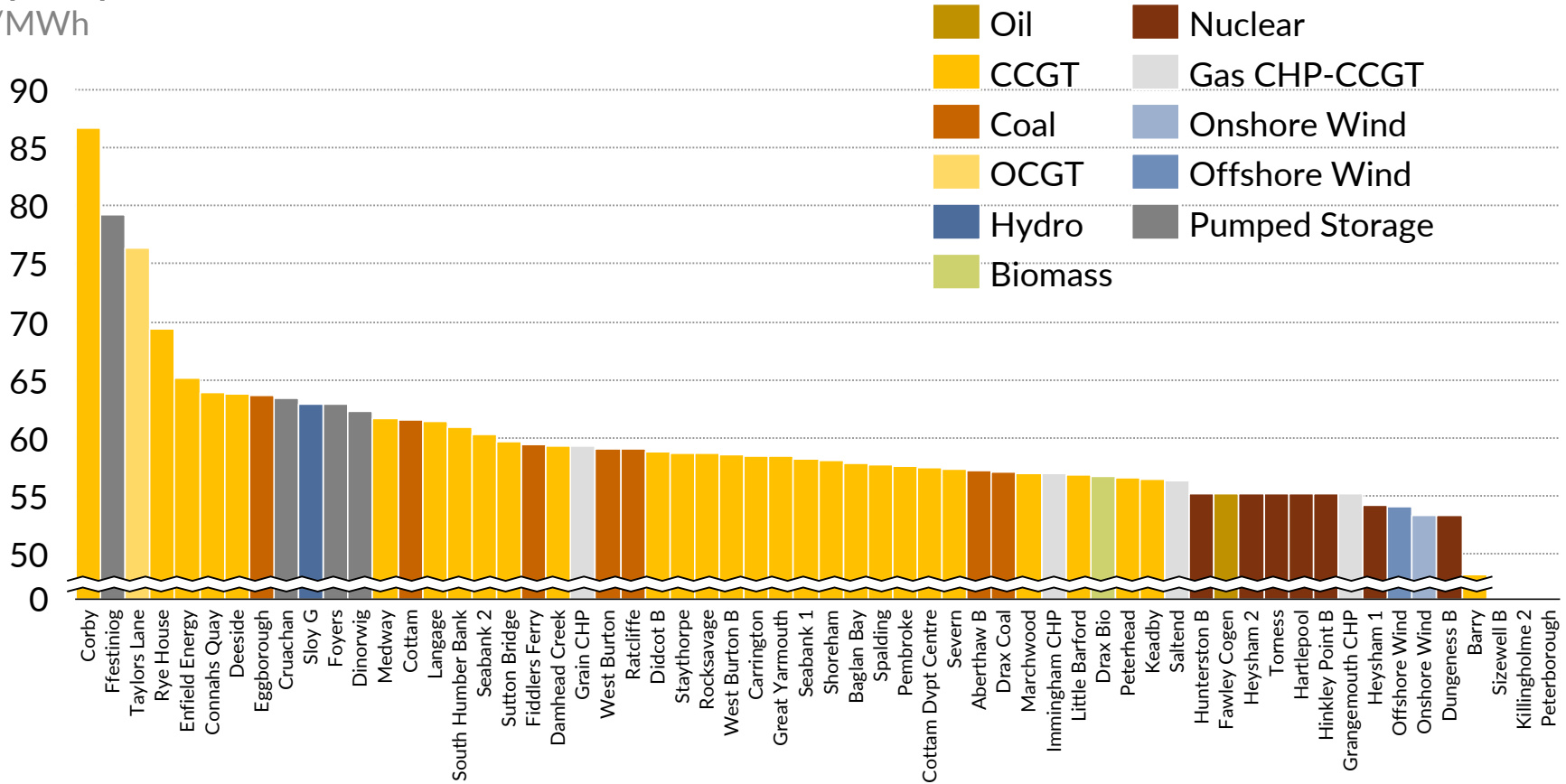
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# Capture price per MWh

Capture price,  
£/MWh



Uses APX half-hourly Reference Price Data.

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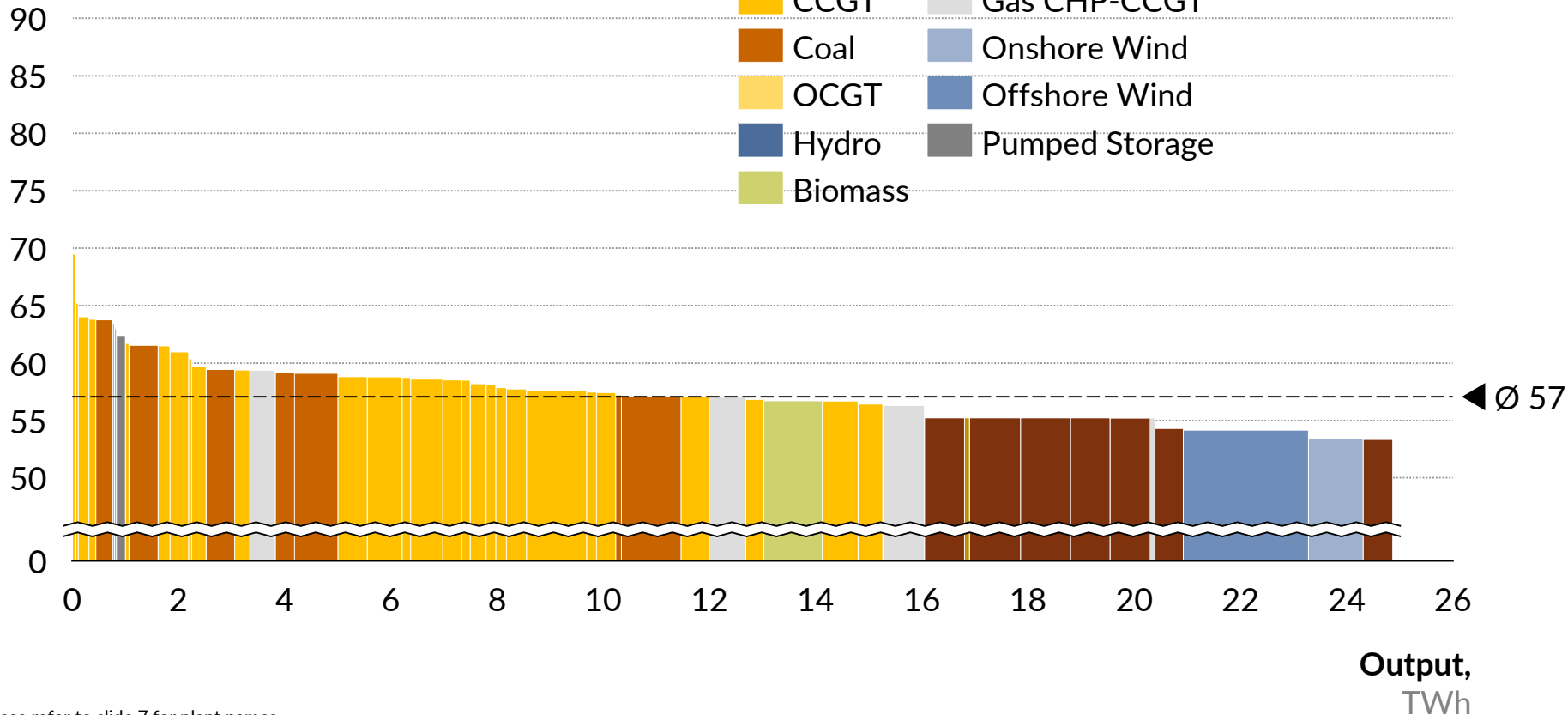
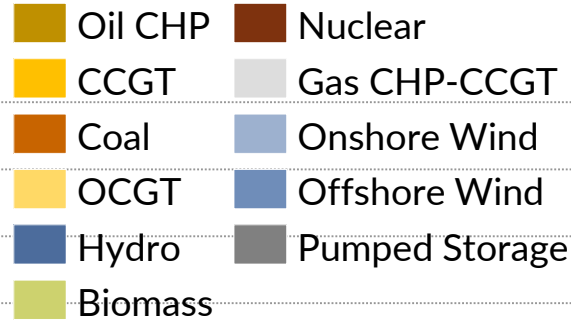
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# Plant-level wholesale revenues

## Output × capture price per MWh

Capture price,  
£/MWh



Please refer to slide 7 for plant names.

Revenues calculated as the sum of products of half-hourly outputs multiplied by the corresponding APX prices. The figure does not include revenues from any other sources.

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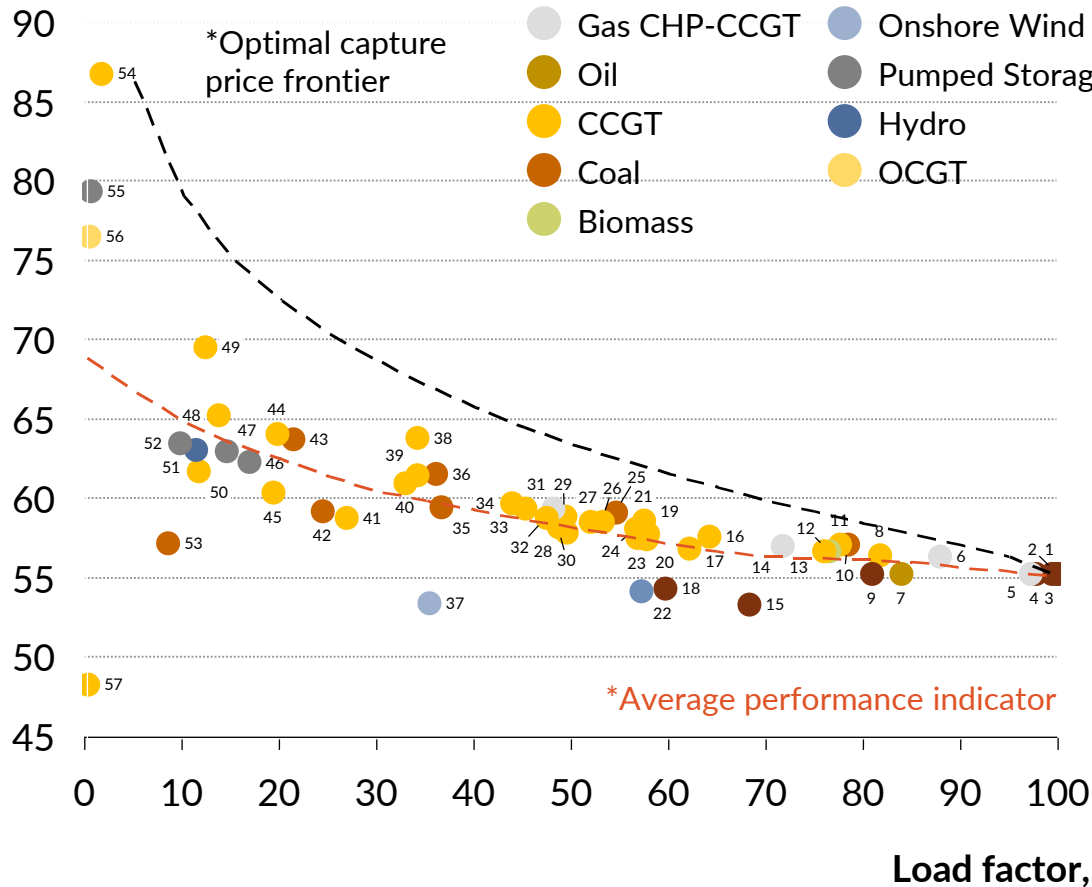
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# Plant utilisation versus capture price – by plant

Capture price,  
£/MWh



1	Hunterston B	30	Seabank 1
2	Hinkley Point B	31	Grain CHP
3	Torness	32	Staythorpe
4	Heysham 2	33	Damhead Creek
5	Grangemouth CHP	34	Sutton Bridge
6	Saltend	35	Fiddlers Ferry
7	Fawley Cogen	36	Cottam
8	Keadby	37	Onshore Wind
9	Hartlepool	38	Deeside
10	Drax Coal	39	Langage
11	Marchwood	40	South Humber Bank
12	Drax Bio	41	Rocksavage
13	Peterhead	42	West Burton
14	Immingham CHP	43	Eggborough
15	Dungeness B	44	Connahs Quay
16	Pembroke	45	Seabank 2
17	Little Barford	46	Dinorwig
18	Heysham 1	47	Foyers
19	Spalding	48	Enfield Energy
20	Severn	49	Rye House
21	West Burton B	50	Medway
22	Offshore Wind	51	Sloy G
23	Cottam Dvpt Centre	52	Cruachan
24	Shoreham	53	Aberthaw B
25	Ratcliffe	54	Corby
26	Carrington	55	Ffestiniog
27	Great Yarmouth	56	Taylors Lane
28	Baglan Bay	57	Barry
29	Didcot B		

\*Please refer to Appendix for the definitions of optimal capture price frontier and average performance indicator. %

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# List of wind farms aggregated into wind categories

## Onshore Wind

Whitelee Wind Farm	Baillie Wind Farm
Clyde Wind Farm	Hill of Towie Wind Farm
Griffin Wind Farm	Carraig Gheal Wind Farm
Fallago Rig Wind Farm	Beinn An Tuirc Wind Farm
Crystal Rig Wind Farm	Edinbane Wind Farm
Hadyard Hill Wind Farm	Minsca Wind Farm
Black Law Wind Farm	Goole Fields Wind Farm
Arcleoch Wind Farm	Dalswinton Wind Farm
Harestanes Wind Farm	Beinn Tharsuinn Wind Farm
Farr Wind Farm	Dun Law Extension Wind Farm
Braes of Doune Wind Farm	Glens of Foudland Wind Farm
Gordonbush Wind Farm	An Suidhe Wind Farm
Kilbraur Wind Farm	Clachan Flats Wind Farm
Millennium Wind Farm	Berry Burn Wind Farm
Mark Hill Wind Farm	Lochluichart Wind Farm
Toddleburn Wind Farm	Clashindarroch Wind Farm
Gordonstown Wind Farm	

## Offshore Wind

London Array Wind Farm  
 Greater Gabbard Wind Farm  
 Walney Wind Farm  
 Thanet Wind Farm  
 Sheringham Shoals Wind Farm  
 Gwynt y Mor Wind Farm  
 West of Duddon Sands Wind Farm  
 Robin Rigg Wind Farm  
 Gunfleet Sands Wind Farm  
 Ormonde Wind Farm  
 Barrow Wind Farm  
 Burbo Bank Wind Farm  
 Lincs Wind Farm  
 Westermost Rough Wind Farm  
 Humber Gateway Wind Farm

## Data used:

1. Output values used in this summary reflect the sum of Final Physical Notifications (FPN) submitted by all BM Units of a given plant that have been active over the last three months.
2. Capacity values used in this summary reflect the sum of capacities of individual BM Units, as reported to the Balancing Mechanism, that have been active over the last three months. They reflect long-term capacities and exclude temporary fluctuations due e.g. to plant failures or scheduled maintenance.
3. Prices used in this summary are the APX half-hourly Reference Prices for half-hourly, two-hourly and four-hourly spot products.

## Categories presented:

1. Full-load hours represent the plants' load factors, calculated as the ratio of the output produced in a given month to the maximum possible output given the plants' capacity.
2. Running hours represent the proportion of time in a given month when a plant has been active, i.e. when at least one of its BM Units produced output greater than zero.
3. Capture prices (or average output-weighted prices) are calculated as an average of APX half-hourly prices per MWh weighted by the plants' corresponding half-hourly outputs for all periods.
4. Optimal capture price frontier represents the set of highest possible price, in £/MWh, that a plant could theoretically capture at any given load factor in a given month. For example, for a load factor of 20%, the frontier indicates the highest average achievable capture price given this load factor, i.e. the average of the highest 20% of prices in a given month.
5. Average performance indicator represents the locally weighted expectation of capture price conditioning on load factor.

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