

# Baseline Methodology V1 December 2020

 Flexible Power



## CMZ Baselines

|   | M | T | W | T | F | S | S |
|---|---|---|---|---|---|---|---|
| → | 0 | 0 | 3 | 3 | 0 |   |   |
| → | 1 | 0 | 0 | 1 | 0 |   |   |
| → | 2 | 3 | 2 | 1 | 0 |   |   |
|   |   |   |   |   |   |   |   |

Each month Flexible Power will use the first three full weeks of data to calculate the Average Demand from the previous month

## CMZ Generation Baselines

|   | M | T | W | T | F | S | S |
|---|---|---|---|---|---|---|---|
| → | 0 | 0 | 3 | 3 | 0 |   |   |
| → | 1 | 0 | 0 | 1 | 0 |   |   |
| → | 2 | 3 | 2 | 1 | 0 |   |   |
|   |   |   |   |   |   |   |   |

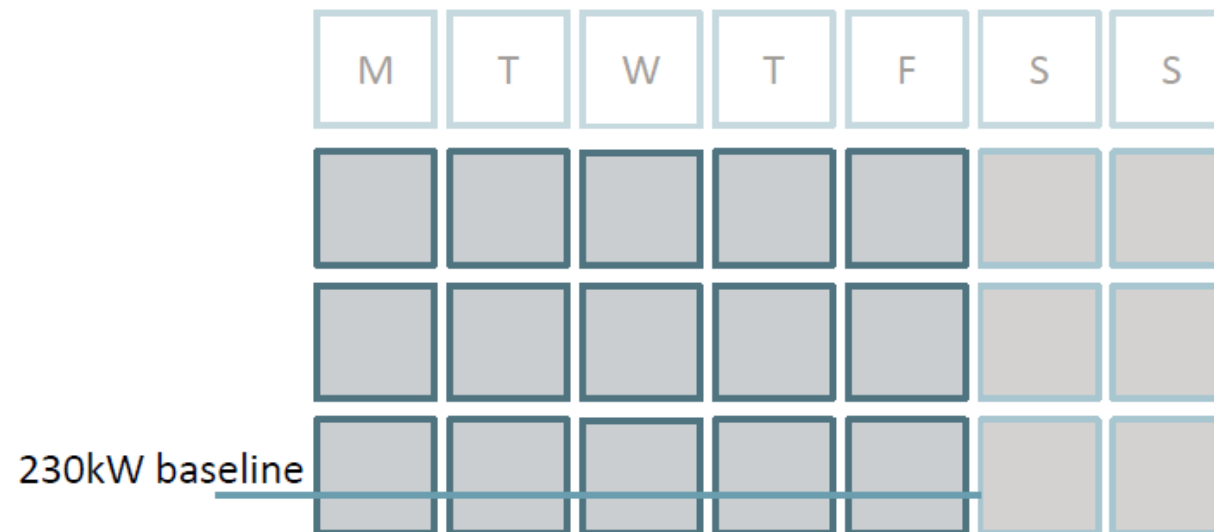
We are only assessing the generation output data for the period 3pm to 8pm weekdays. This is gathered at the point of generation and not the site settlement.

## CMZ Generation Baselines

|   | M | T   | W   | T   | F   | S | S |
|---|---|-----|-----|-----|-----|---|---|
| → | 0 | + 0 | + 3 | + 3 | + 0 |   |   |
| → | 1 | + 0 | + 0 | + 1 | + 0 |   |   |
| → | 2 | + 3 | + 2 | + 1 | + 0 |   |   |
|   |   |     |     |     |     |   |   |

The average from the 75 hours being assessed is calculated and updated to the participants 'customer portal' by the 1<sup>st</sup> of the following month

## CMZ Generation Baselines



Average Demand on Generator = 0.23MW baseline

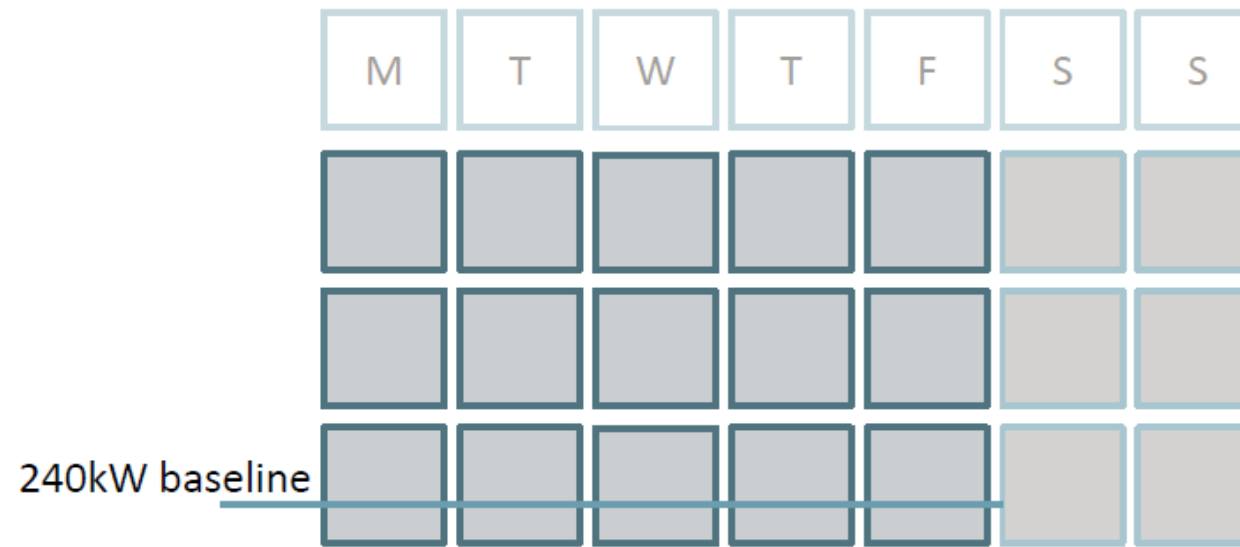
Where behaviour is clearly erratic it is acceptable to forecast output at zero. If generation is consistently supplying the site during the previous month then it requires a baseline that reflects this

## CMZ Demand Reductions Baselines

|   | M | T   | W   | T   | F | S | S |
|---|---|-----|-----|-----|---|---|---|
| → | 1 | 1   | 1.5 | 1.5 | 1 |   |   |
| → | 1 | 1.5 | 1.5 | 1   | 1 |   |   |
| → | 2 | 1.5 | 1.5 | 1   | 1 |   |   |
|   |   |     |     |     |   |   |   |

As with the generators, we calculate the average demand by totalling the consumption over the same 75 hours.

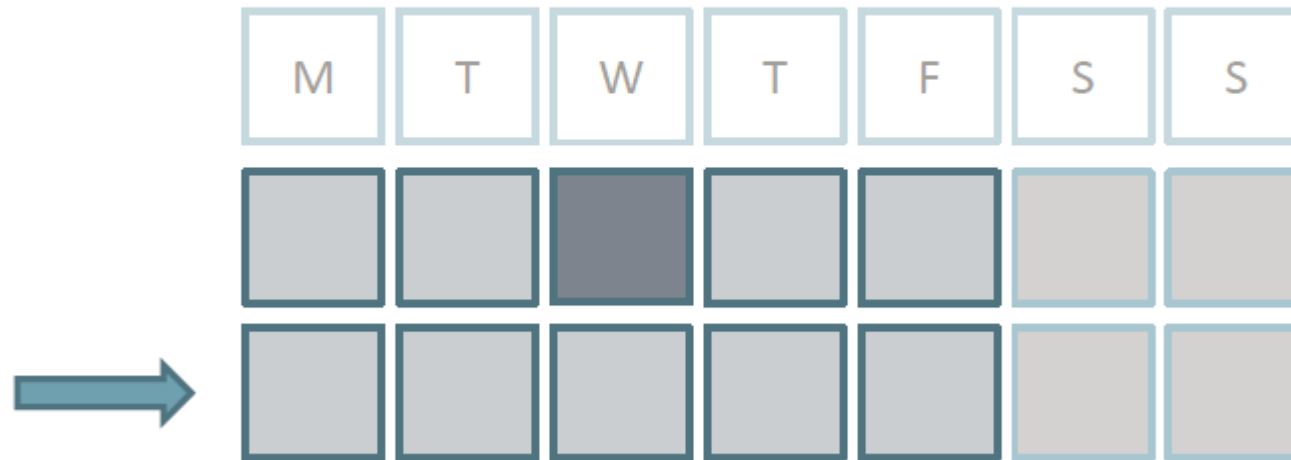
## CMZ Demand Reduction Baselines



Average Demand on Generator = 0.24MW baseline

As this behaviour is relatively consistent we would expect an aggregator to provide detailed evidence if a different value was to be considered.

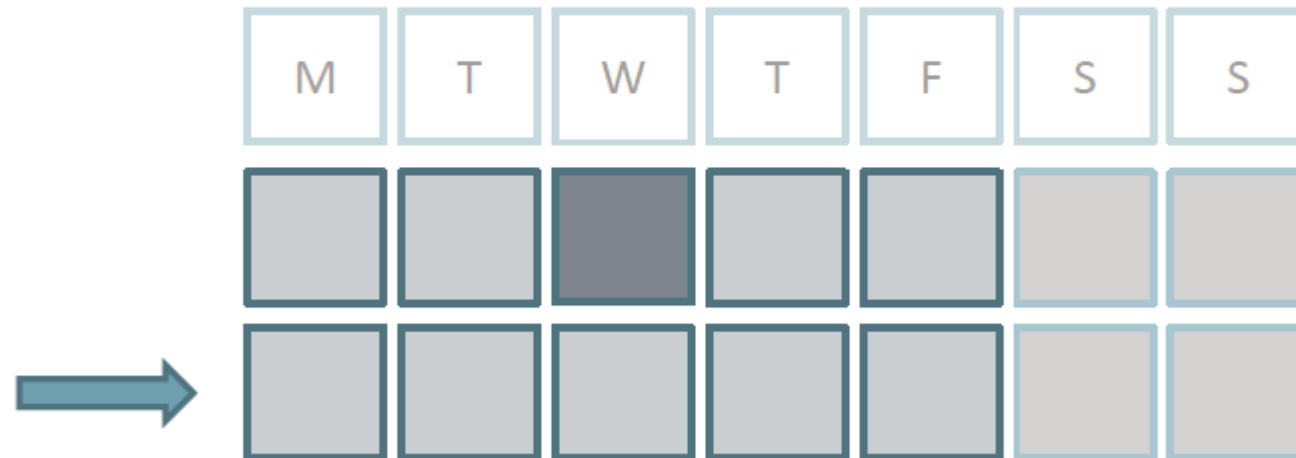
## Weekly declarations



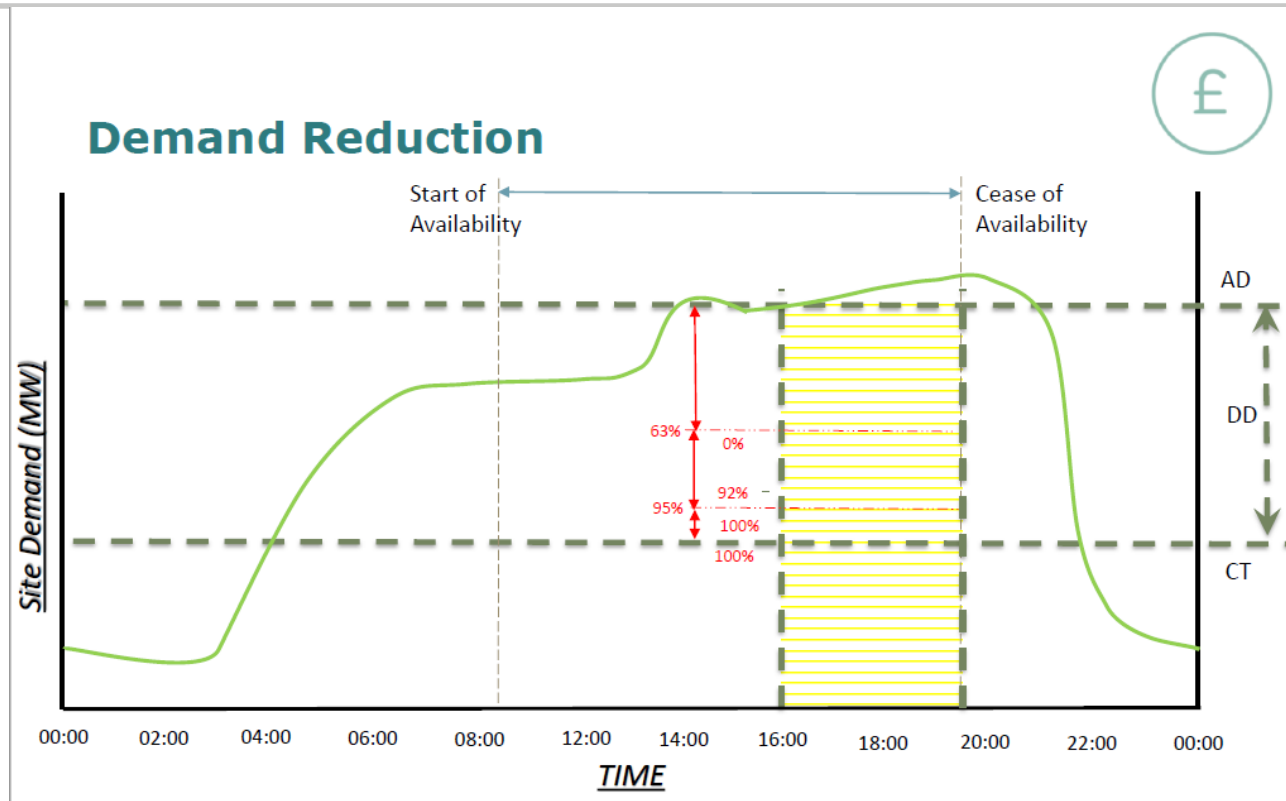
By midnight Wednesday each week, an aggregator can access their CMZ declarations to set their target output capacity for generation for the following week for each CMZ. This can be treated as a static value simply by allowing the previous week's declaration to roll over.



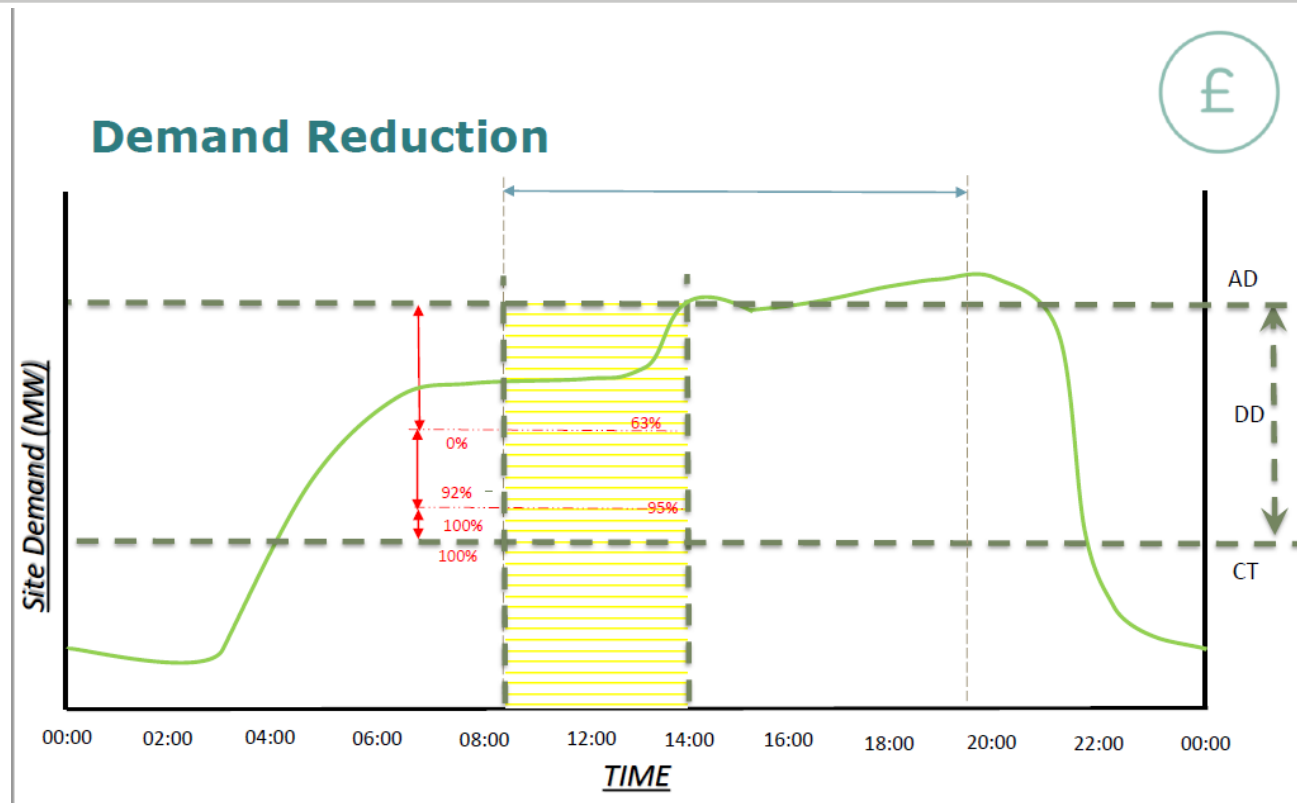
## Weekly declarations



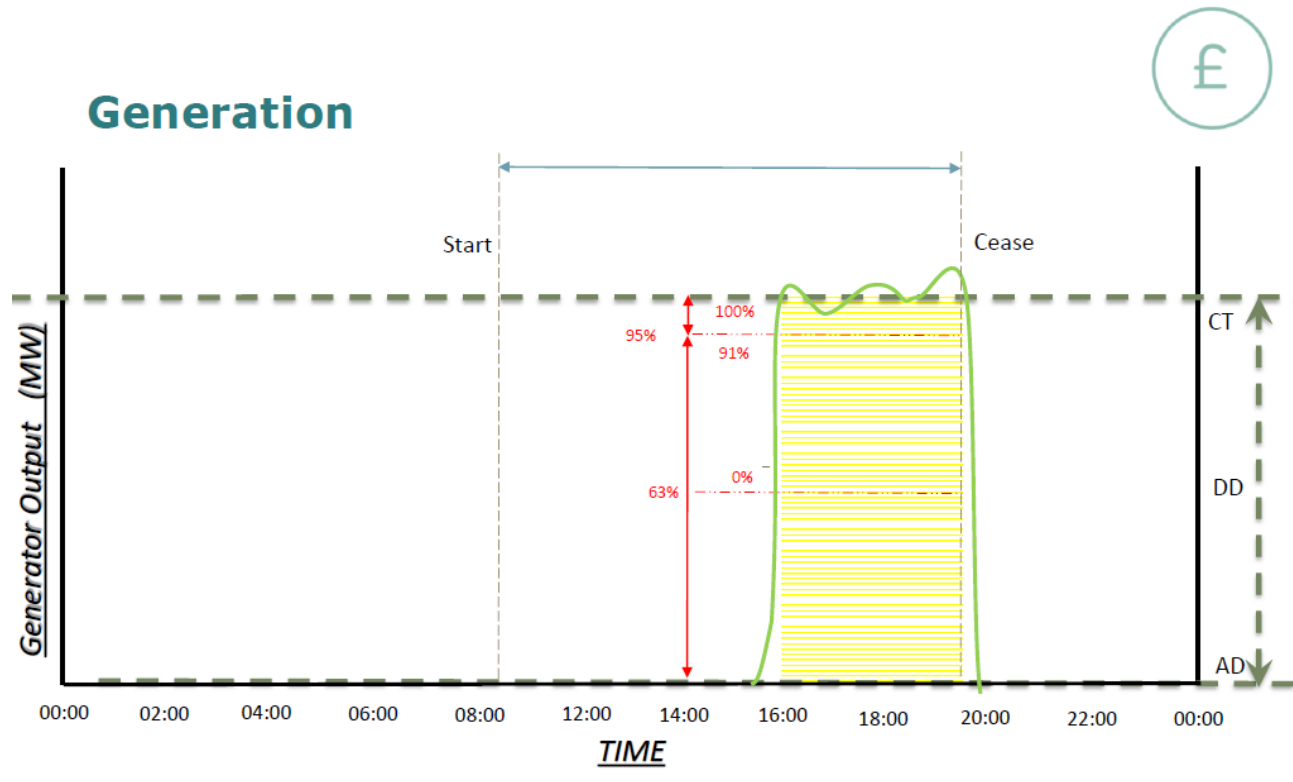
Generation declarations are for the expected combined output of generating units for the following week  
Demand Reduction declarations should be a combined maximum demand the site(s) should not exceed.



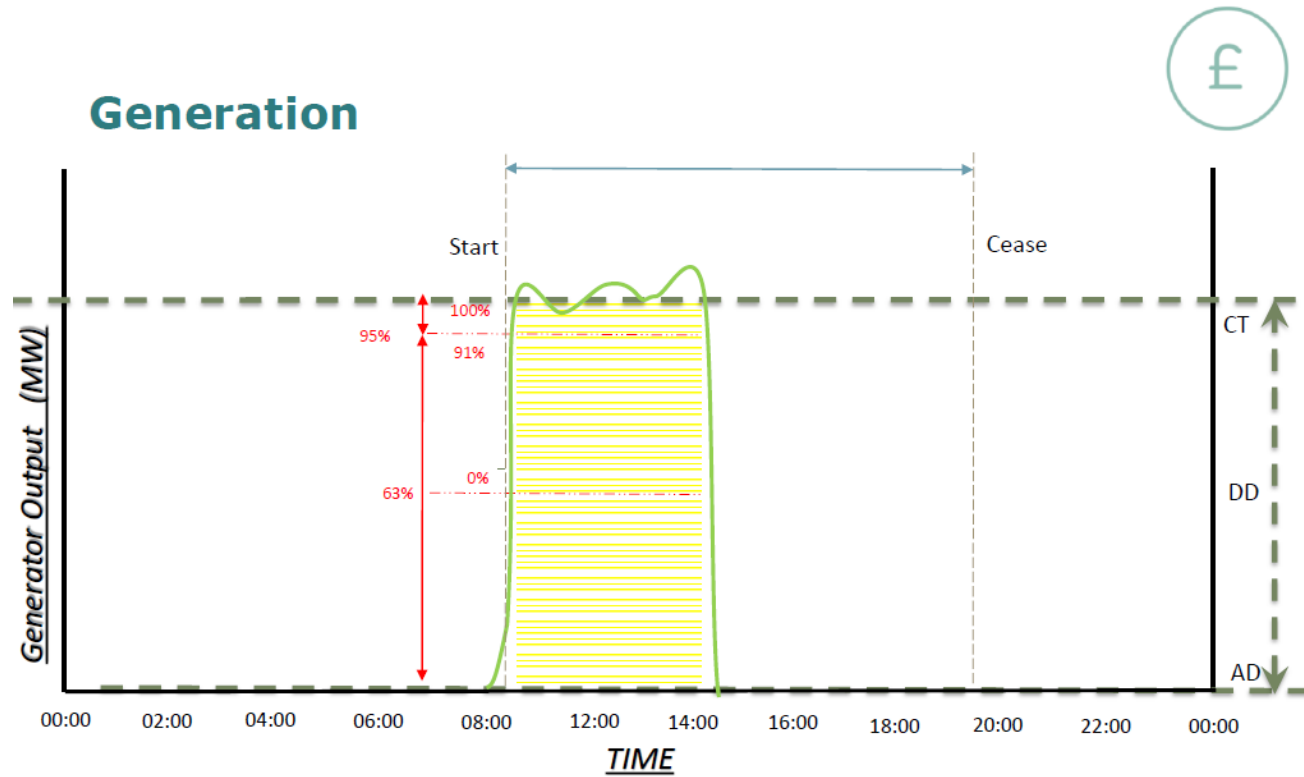
An Aggregator can set the window of availability and also the capped demand (CT) which should not be exceeded when an event is dispatched. The Average Demand (AD) is used to calculate the payment



If a dispatch instruction is sent at a time of day when the demand is lower, the delta that the site requires to deliver is smaller in order to get to the CT, but the payment is still calculated from the higher AD value.



An intermittent generator should be easier to set the CT as it is likely to have a more static output value. As with Demand Reduction the declaration should cover the duration of availability window as well as the CT.



The time of day and fluctuation of demand at the site is likely to have little impact on the CT for a generator(s) if they are not being used as a primary source of power.