

## Two Shift Limit Definition and Application

## **Background**

The common understanding amongst the majority of generators in the UK is that the Two Shift Limit ("TSL") notifies National Grid (Grid) of the number of times a generator is prepared to desynchronise a generating unit within a 24 hour time period. Two Shift Limits are submitted to Grid on a frequent basis by generators by denoting a number with the 'S' marker. A Two Shift Limit of 1 would have an S marker of 1.

The Operating Code defines the Two Shift Limit as follows:

"OC2.A.10 Two Shifting Limit – the maximum number of times that a Genset may De-Synchronise per Operational Day."

This definition makes no mention of, and draws no distinction between a two shift for Balancing Mechanism (BM) activities and a generator's Physically Notified (PN) contract position.

Eggborough Power Limited ("EPL") has planned and operated its plant under these guidelines and on the above understanding since NETA went live in 2001.

On Wednesday 6<sup>th</sup> October, EPL had S markers set to 1 for all of the Eggborough Gensets. Based upon EPL's understanding of the Operating Code, this meant that EPL was prepared to two shift each Genset a maximum of once on that Operational Day.

## TSL Events at EPL

Tuesday 5<sup>th</sup> October

On Tuesday 5<sup>th</sup> October, T\_EGGPS-4 was on a BM offer and Grid spoke with Merrill Lynch (who act as the Energy Management Centre (EMC) for EPL) asking if they could take the Genset off load at the end of the offer. Merrill Lynch said that was not acceptable as the Unit had an S marker of 1 and that it had an evening PN. If the unit desynchronised in the morning, the later synchronisation to fulfil its contract position would have resulted in an S marker of 2. Grid accepted this position and the unit stayed on load on an offer through to its PN.

Wednesday 6th October

Eggborough Genset T\_EGGPS-4 ("Unit 4") was un-contracted in the morning of 6<sup>th</sup> October but had a contract position in the evening with a PN to synchronise for 1600hrs (BST) and desynchronise 2150hrs (BST).

Unit 4 was offered on by Grid at 0555hrs (BST). As the Unit had an S marker of 1, in EPL's opinion this meant that the unit should then have stayed on load on the BM offer through to 1600hrs – the time of the original PN.

All dynamic parameters (S markers, MZT, MZT, and NDZ) remained unchanged during the BM offer. At around 1000hrs Grid spoke with Merrill Lynch. Grid said that Unit 4 was to be desynchronised at the end of a normal 4hr offer. Merrill Lynch said that this did not comply with the S marker of 1 and that the unit should stay on load through to its PN position at 1600hrs.

The unit desynchronised at 1055hrs.



## **Consequences for EPL and Coal Generating Fleet**

All coal fired generating units are given a number of starts and running hours between outage inspections. Planning the units' running regimes and pro-rating the starts across this period allows generators to make best use of starts within its start quota. Using the S marker to indicate how many starts the unit can do per day allows generators to manage this situation. If the TSL has a different interpretation to that given above then this would deprive generators of the facility to manage their unit start positions effectively. This might deter generators from offering their BMUs for Balancing Actions in order to have control over their starts as opposed to having an unknown number of starts that Grid may use through a different interpretation of TSL to that of the majority of the coal fired industry.

Therefore, clarity is sought on the TSL definition and its application by Grid as it appears to have changed in recent weeks to that of the previous 9 years under NETA and then BETTA.

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