**Substantially Modified Examples**

Following the EU Connection Codes Co-ordination Group meeting on 7th April 2016 discussion with respect to Article 4 (of the RfG) a table was developed with some illustrative examples of possible changes that may or may not mean that this could lead to it remaining ‘classified’ as *existing* (in the context of the RfG/ DCC / HVDC) or now be ‘classified’ as *new* (in the context of the RfG/ DCC / HVDC).

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| Example Number | Example Details | This would be classified as ‘new’ because….. | This would be classified as ‘existing’ because….. | Other comments |
| 1 | Existing 20 year old station comprising of synchronous generating units. Excitation and Governor systems to be replaced on a like for like basis | No | No material change to performance – plant replaced with components of the same type and technology as when constructed. | ESO to be notified of change. |
| 2 | Existing Power Station site - old Generating Unit to be replaced with new Gas Turbines | Yes – There is a material change to the plant – a brand new unit is replacing the existing retired unit | No | ESO to be notified and treated in the same way as a new generating unit. |
| 3 | A 100MW wind farm comprises 50 x 2MW turbines. The wind turbines are to be replaced by 20 x 5MW turbines. | Yes – The turbines, control systems and performance are all using new plant even though the Grid Connection assets may remain largely unchanged. | No | ESO to be notified and treated in the same way as a new generating unit. |
| 4 | Generator Transformer replaced at an existing 40 year old coal station with a grey spare | No | Plant is using technology of the same type when the station was build. | ESO would need to assess any alterations in performance if different from the original plant eg tap range. |
| 5 | Change of Generator Ownership – no change to plant | No | No material change to plant | Bilateral Connection agreement to be updated using new terms where necessary (eg removal of MCUSA with CUSC) |
| 6 | An existing wind farm adds additional new turbines | New turbines would need to be Grid Code Compliant | Major issue is that the requirements are based on the module not each turbine.  Additional issue is that if the wind farm is a small power staton and the additional turbines increase the size of the Power Station to Medium or Large Power Station this introduces additional requirements. As a minimum the new turbines would have to be RfG compliant | Same issue as GB Code- Power Park Module extensions.  Difficult to segregate turbine requirements from module requirements. Major issue would be for an old wind farm (pre June 2005 without Grid Code requirements adding new turbines).  One solution to this would be to treat the wind farm in a similar way to a co-located site. The shut down and compliance tests are applied to the new units. Limited compliance tests are then applied to the whole site. If the plant transitioned from a Small Power Station to Medium or Small to Large Power Station the whole site would come under the banner of a Medium or Large Power Station and applicable Grid Code requirements would apply to the whole site. The old turbines would be caught by the CC’s and the new turbines by the ECC’s though some assessment of the whole site would be necessary. In addition, the relative proportions of the site extension need to be considered. For example is the extension adding 2MW to a 49.9MW Small Power Station making it Medium or is the extension substantial so that 49.9MW now becomes a total of 100MW. In this case the criteria proposed under G99 may be more relevant. |
| 7 | Small Power Station replants with a new bigger unit | Yes – There is a material change to the plant – a brand new unit is replacing the existing retired unit | Yes this would be caught by the ECCs as the old plant has been replaced by brand new plant and therefore the full requirements of the ECC’s would apply. | Transfer from Small to Band C or D. Potentially more onerous requirements than previously but would effectively be treated in the same way as a new Generator. |
| 8 | Generator changes its TEC capacity or Connection Dates | Yes / No – depends if Main Plant has been ordered. If main plant ordered no, if main plant not ordered and beyond Q2 2018 - yes |  |  |