

Legal text

3.5 The group demand which is applicable for the assessment of connection capacity requirements for future years is equal to the Network Operator's estimated unrestricted maximum demand for the group which they believe could reasonably be supplied by the Network Operator's system, after taking due cognisance of demand diversity. This should not include any adjustments to take into account demand management or other techniques that could modify demand. Demand taken by electricity storage shall contribute to the *group demand* but only to the extent that is expected to materialise at the time of the maximum demand. ~~dependent on the nature of the associated connections, i.e.:~~

~~3.5.1 where the network associated with a transmission connection comprises demand connections and connections to small or medium power stations (including those in composite-user sites), group demand for future years is equal to the Network Operator's estimated maximum demand for the group which they believe could reasonably be imposed on the onshore transmission system, after taking due cognisance of demand diversity and the expected operation of any embedded small or medium power stations.~~

~~3.5.2 where the network associated with a transmission connection hosts the connection of one or more large power stations, irrespective of whether the large power station is connected at the transmission interface point or embedded within the Network Operator's system, the group demand at the date and time of the system/site maximum demand or other relevant assessment period is equal to:~~

~~3.5.2.1 the Network Operator's group demand in accordance with paragraph 3.5.1, plus:~~

~~3.5.2.2 the output of large power station(s)~~

3.7 The *transmission capacity* for the connection of a particular *demand group* shall meet the criteria set out in paragraphs 3.7 to 3.11 under the following background conditions:

3.7.1 when there are no *planned outages*, the demand of the *demand group* shall be set equal to *group demand*;

3.7.2 when there is a *planned outage* local to the *demand group*, the demand of the *demand group* shall be set equal to *maintenance period demand*;

~~3.7.3 the security contribution of small and medium power stations embedded is implicitly accounted for in the group demand established by the Network Operator as in paragraph 3.5.1 and need not be considered separately~~

3.7.3 the security contribution of **a any power station** embedded within a customer's network (e.g. distribution network) or connected at the transmission interface point **and the security contribution of any flexible demand** shall be as specified in paragraphs 3.13 to 3.15 **and Table 3.2**;

3.7.4 any *transfer capacity* (i.e. the ability to transfer demand from one demand group to another) declared by *Network Operators* shall be represented taking account of any restrictions on the timescales in which the *transfer capacity* applies. Any *transfer capacity* declared by the *Network Operators* for use in planning timescales must be reflective of that which could practically be used in operational timescales; and

3.7.5 demand and generation outside the *demand group* shall be set in accordance with the *planned transfer conditions* using the appropriate method described in Appendix C.

3.13 Where network assets are insufficient to meet the security requirements, it is necessary to assess the contribution to security from *large power stations* connected at either the transmission connection interface or embedded within the *Networks Operator's system* and the contribution from any *flexible demand* within the *Networks Operator's system*. This will identify whether the aggregate generation capacity of *the large power station stations* and the aggregate *flexible demand* connected to the network has the potential to meet any deficit in system security from network assets.

3.14 The combined contribution by *large power stations* and *flexible demand* shall never have a greater impact on system security than the loss of the largest circuit infeed to the group. The contributions from embedded *small* and *medium power stations* and from *flexible demand* provide additional capacity to enable the supply of demand which may not otherwise be met following a *secured event*, but shall not replace the requirement for system connection. The assessment of contribution of generation to group security will therefore consider;

3.14.1 the generation *annual load factor*;

3.14.2 the availability of generation under outage conditions;

3.14.3 the fuel source availability, i.e. whether energy is continuous, stored, storable or predictable;

3.14.4 common-mode failure mechanisms such as common fuel source, connections or plant stability / ride-through capability;

3.14.5 capping of generation contribution in the event that the generation contribution is dominant with respect to circuit infeed capability

~~3.15 The effective contribution of large power stations to demand group importing capacity, shall not exceed the levels indicated in Table 3.2 while taking due account of the considerations detailed in paragraph 3.13. While taking due account of the considerations detailed in paragraph 3.13. The effective contribution to demand group importing capacity shall not exceed~~

~~3.15.1 in the case of small or medium power stations and of flexible demand, the contributions declared by the Network Operators; and~~

~~3.15.2 in the case of large power stations, the levels calculated in accordance with Annex D of Engineering Report 130.~~

Terms and Definitions

Electricity storage plant

A *power station* which converts electrical energy into a form of energy which can be stored, stores that energy, and subsequently reconverts that energy back into electrical energy.

Flexible demand

A subset of a *Group Demand* where the customers agree to change their electricity demand at a given point in time in response to an instruction by or in accordance with an agreement with an *onshore transmission licensee*, or a *Network Operator*. This excludes any change to demand following an emergency instruction.