Flexible Connections Offered

(1) Timed: Generation curtailed within specific times
   - Sub 1 MVA
   - Modelled Seasonal Capacity Variations
   - Localised control only
   - No comms
   - Non optimised

(2) Soft intertrip: Releases pre fault capacity with trip facility
   - 11kV and 33kV
   - Real time monitored values
   - Small clusters on generation or simple pinch points
   - Existing monitoring with localised control

(3) Active Network Management: Fully optimises capacity based on all constraints
   - Management of generation using LIFO principles
   - Real time granular control of output
   - Requires new active networks management control and monitoring systems

Note: Costs, complexity and network optimisation increase 1 – 3. Option 3 being the Most complex and costly.

Definitions

Timed

Some of our networks have predictable load and generation patterns which enable us to determine when the limitations will occur. Connections will be given an operating schedule which will define the times and levels of capacity available to them. The method of curtailment can either be provided by Western Power Distribution or developed by the customer and submitted for approval.

This alternative connection is suitable for capacities under 1MVA and does not require remote communications. On-going enforcement of the curtailment will be collected from the standard metering flows.

Soft-Intertrip

Some networks are constrained due to a single upstream asset requiring reinforcement, or a single limit being infringed under certain conditions. Through monitoring these conditions, further capacity can be released when these limits or assets are within normal operating parameters. When there is no further capacity available, the connection will be curtailed to a predefined limit, which may be zero.

This alternative connection is suitable for all capacities and voltage levels, although due to the coarse method of curtailment, there will be a maximum number of participants per area.

Active Network Management

In areas where there are multiple complex constraints affecting a number of customers over a long time period, full active network management systems will be implemented. Distributed control systems continually monitor all the limits on the network and then allocate the maximum amount of capacity to customers in that area, based on the date their connection was accepted. This Last In, First Out
(LIFO) hierarchy prioritises the oldest connections when issuing capacity, but is scalable so that new entrants will get access to the capacity when it becomes available.

**Further Information Available From**


https://www.westernpower.co.uk/Connections/New-Connections/Apply/Online.aspx