

Data for Centralised Data System

Enduring Forced Asset Outages

HVAC

The data is provided as an Excel file and is a list of forced outages of Transpower transmission circuits, transformers, capacitor banks, synchronous Condensers, and the Islington SVC.

The fields are:-

Ident	Incident Identifier that links all the records associated with one fault.
Fit_Item	The item / equipment causing the forced outage. There is usually one of these per incident. The exception is for a double circuit fault.
Rem_Item	Any equipment in the above categories that has been forced out of service.
Date Time	Date, Time
Duration	Outage Duration in minutes.

Notes:-

- 1) Forced Outages are those for which the equipment was tripped or manually taken out of service within 24 hours of the fault occurring or being discovered.
- 2) A circuit is deemed out of service if any circuit breaker is open. In some cases, a forced outage may be recorded against a circuit section rather than the whole circuit, in particular for three terminal circuits. A transformer is deemed out of service if either the HV or LV circuit breaker is open (an open CB on the tertiary winding is generally not considered to constitute a transformer outage).
- 3) A trip – autoreclose-trip sequence is shown as one incident (with one identifier) if the autoreclose was unsuccessful because of a persisting fault.
- 4) If a second fault occurs or is discovered when attempting to return equipment to service, a second incident is recorded with a second identifier, e.g. failed autoreclose because of a protection fault; or a transformer cannot be returned to service because of a CB problem.
- 5) A number of outages within a relatively short space of time will generally be recorded under one identifier if they all had the same cause, e.g. a tree causes three trippings within 10 minutes. If the outages are caused by separate faults they will have separate identifiers, e.g. if a circuit trips for lightning 3 times in 10 minutes.
- 6) Unplanned outages caused by a delayed return-to-service after planned maintenance works are not included.
- 7) Whilst Transpower has used reasonable endeavours to ensure that this data is accurate, there is no guarantee that it is error free.

HVDC

The data is provided as an Excel file and is a list of forced outages on Transpower's HVDC system.

The fields are:-

Occurrence Date, Time	Date and Time of tripping.
RTS_Date, Time	Date and Time of return to service.
Terminal, Area, Plant Item	Equipment affected

- 1) HVDC Forced outages include both automatic and manual trippings.
- 2) An HVDC outage is categorised as forced if it occurs within 7 days of a fault being discovered.
- 3) System disturbances and restrictions are not included.
- 4) Whilst Transpower has used reasonable endeavours to ensure that this data is accurate, there is no guarantee that it is error free.