

Freedom of Information request: Reference number FOI2026/00722

Date of request: 22nd June

Request:

We are a fire engineering consultancy providing fire strategy services for electrical substations across the UK. We have delivered strategies for more than 30 substations in the past two years. We are currently reviewing best practice for firefighting methodologies within electrical substations, specifically regarding the use of water for controlling or extinguishing fires involving high-voltage equipment. To support the preparation of our current and future projects, we wish to request access to past substation fire incident data from your database.

This data would be really helpful in developing practical fire strategy solutions for electrical substations. For previous substation fire incidents across the UK, we would be grateful to obtain the following details where available:

- Type of equipment involved e.g. transformer, switchgear, quadrature booster, reactor
- Identified cause of fire e.g. electrical fault
- Time taken to isolate the affected equipment and allowing the fire service to enter the site
- Firefighting method deployed e.g. water, foam-defensive cooling only, controlled burn-out, or no action
- Outcome of the incident e.g. extent of damage , environmental impact, injuries/fatalities

If you are able to share this data, or direct us to the appropriate publicly available resources, it would greatly assist our analysis and help ensure realistic fire safety design.

Many thanks,

Response:

I refer to your request for information, received on 22 June 2026, which has been processed under the Freedom of Information Act 2000.

You requested historical fire incident data relating to electrical substations across the UK, including details of the equipment involved, identified causes, isolation times, firefighting methods deployed, and incident outcomes.

With regard to the specific information requested, our incident recording systems do not capture data at the level of detail you have outlined. In particular, we do not hold recorded information on:

- The type of high-voltage equipment involved in individual incidents;
- The time taken to isolate equipment before firefighter intervention; or
- The specific firefighting methods deployed at individual incidents.

As this information is not held by the London Fire Brigade, we are unable to provide these elements of your request.

However, we are able to provide aggregated information from our records relating to fires involving electrical supply infrastructure within Greater London. The tables below provide a breakdown of the 148 recorded incidents by ignition source and primary cause.

Ignition Source	Inci-dents
Batteries, generators	8
Candles/Tea lights - Social use	1
Cigarette	4
Electrical intake head/Main fuse	57
Electrical supply - Fuse board/Consumer unit	3
Electricity meter	1
Intentional burning - out of control	1
Lighted paper or card, or other naked flame	2
Liquids; petrol/oil related	3
Manufacturing equipment	1
Matches	3
Natural occurrence	2
Not known	7
Other	7
Other industrial equipment	8
Storage heater	1
Wiring, cabling, plugs	39
Grand Total	148
Main Cause	Inci-dents
Accumulation of flammable material	2
Bonfire going out of control	1
Fault in equipment or appliance	13
Faulty fuel supplies – Electricity	92
Faulty fuel supplies – Petrol product	1
Faulty leads to equipment or appliance	3
Heat source and combustibles brought together deliberately	7
Natural occurrence	4
Other intentional burning, going out of control	2
Overheating, unknown cause	18
Unsafe use of equipment or appliance (heat source)	2
Unsafe use of heat source - due to sleep or unconsciousness	1
Unsafe use of heat source - due to unsafe disposal	2
Grand Total	148
Firefighting Action	Inci-dents
Beating, stamping	1
Burned out (Allowed to burn under control)	22
CO2 (carbon dioxide)	6
Cutting away	1
Dry powder (DP)	21
Hosereel (high pressure) (HRJ) - augmented supply	6
Hosereel (high pressure) (HRJ) - tank supply only	7
Hosereel (low pressure) (HR) - augmented supply	3

Hosereel (low pressure) (HR) - tank supply only	1
Main branch/Jet (J)	5
No firefighting	67
Other	2
Removal from/of heat source	1
Smothering - use of other method	1
Smothering - use of sand, earth, snow etc	1
Water from fixed hosereel installation	1
Water, soda acid, gas expulsion etc (water stored pressure)	2
Grand Total	148
Damage Spread	Inci-dents
Affecting more than 2 floors (not whole building)	1
External roof only	1
Limited to floor of origin (not whole building)	1
Limited to item 1st ignited	87
Limited to room of origin	42
NULL	14
Whole building	2
Grand Total	148
Number of attending Pumps	Inci-dents
1	28
2	91
3	14
4	11
5	3
6	1
Grand Total	148

We have dealt with your request under the Freedom of Information Act 2000. For more information about this process, please see the guidance we publish about making a request on our website:

<https://www.london-fire.gov.uk/about-us/transparency/request-information-from-us/>