

ABOUT KIPO

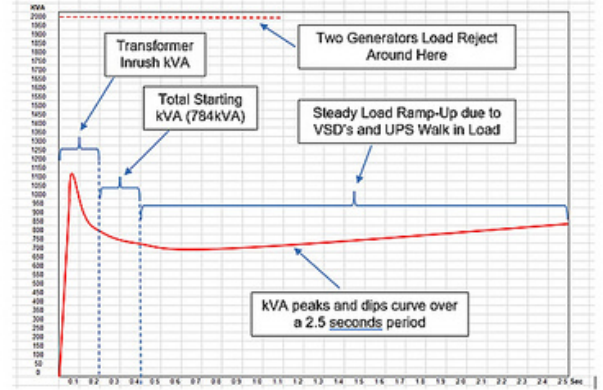
We understand that experience and attention to detail are vital to the success of each project. We are trusted by our clients to bring our extensive knowledge and experience to deliver designs and workable solutions for data centres, energy centres and power stations

Projects include:

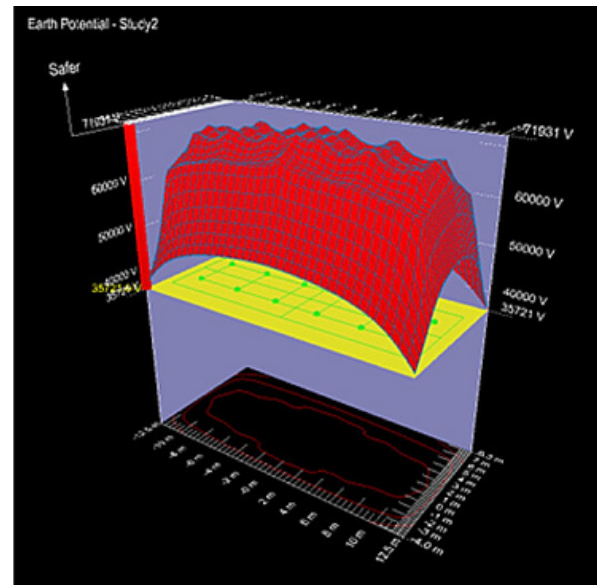
- Colt Data Centre: MV Study
- Digital Realty Data Centre: MV Study
- Telehouse Data Centre: MV/LV Study
- China Mobile Data Centre: MV/LV Study
- NTT Data Centre: MV/ LV Study
- Global Switch Data Centre: MV/ LV Study
- Ark Data Centre: MV/LV Study
- KPMG HQ: MV Study
- Virgin Data Centre: LV Study
- 138kV/13.8kV Lavaca Bay Design
- 66kV/33kV/11kV Knowsley Design
- 22kV Power Generation Singapore Gardens
- 11kV Transient Stability Study
- 11kV Liverpool Street
- 11kV National Grid
- 11kV Design Cyrus One London
- 400kV/6.6kV West Burton Power Station
- Containerised 11kV Switchrooms at 33kV

We cover an average of 50 Protection Studies a year.

Generator Transient Stability and Transformer Inrush Generator Load Acceptance Studies

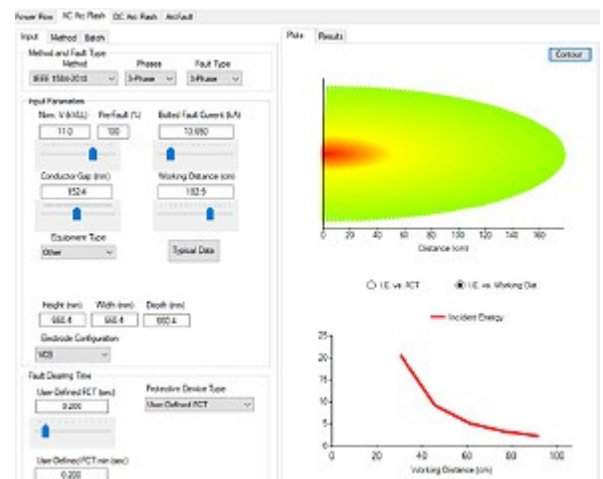


Earthing Potential Rise Studies



HV AND LV ARC FLASH

HV and LV Arc Flash Studies are essential factors in the design of any electrical installation. We carry out an exhaustive analysis of the electrical protections needed to guarantee the Arc Flash is understood in terms of safe distance in front of the equipment



SUMMARY OF SPECIALIST SERVICES

SPECIALIST PROTECTION ENGINEERING

Including protection studies and switching cause and effect with dedicated computer models, built to carry out power flow analysis anticipating the different switching scenarios, including mains, generators and loss of the main or generator (s) conditions. Directional protection and earth fault charges in conditions require studies to capture worse-case scenarios for the faults to be picked up by the nearest protective device.

HV BREAKER SELECTIVITY

Including all manufacturer ranges of relays, overcurrent and earth fault protection, differential protection, VAR's reversal, neutral voltage displacement, voltage vector shift, rate of change of frequency, voltage resistance and directional protection.

GRADING STUDIES

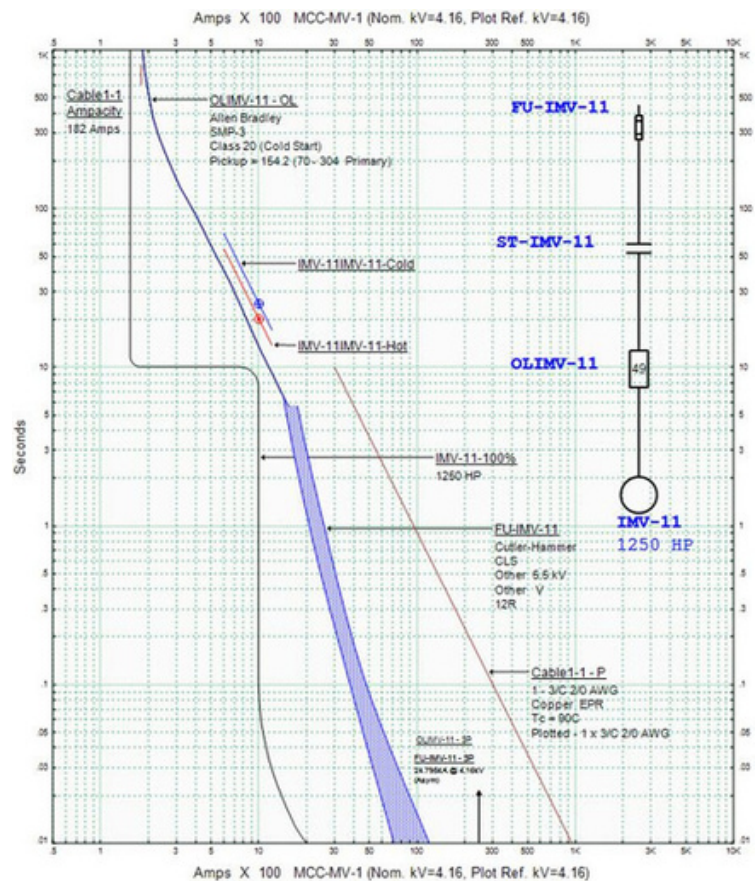
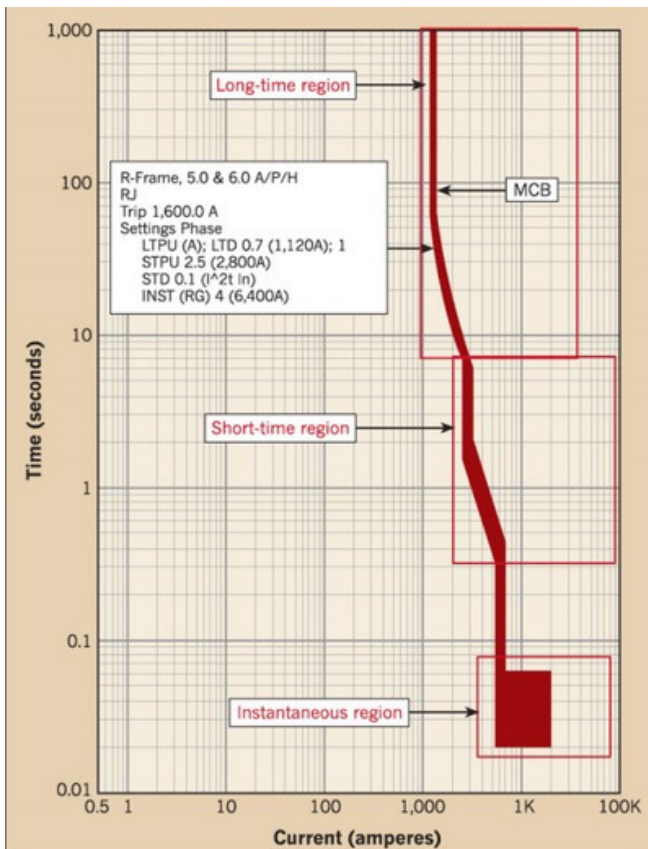
Protection Grading is an essential part of the electrical network, ensuring discrimination and selectivity of downstream faults. It is of vital importance that the protection system on any distribution network operates swiftly and correctly to minimise potential damage.

COORDINATION STUDIES

Coordination studies help facilities avoid accidents, providing a harmless, reliable and effective operation of an electrical distribution system.

LV BREAKER SELECTIVITY

Including the manufacturer's coordination of breakers guidelines. Studies include ACB protection for the distribution transformer, generator protection, and UPS protection, coordinated with the downstream MCCBs settings.





High, Medium and Low Voltage Design

Our High, Medium and Low Voltage designs consider the overall design of the electrical network relating to power generation, distribution switchgear, protection and relay selection and power/distribution transformers.



Discrimination Studies

A Discrimination Study can help you to prevent unwanted power loss and breaker tripping. The objective of the study is to ensure safety and continuity of power to your electrical network.



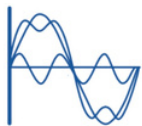
Short Circuit Studies

Short Circuit Studies assess whether your switchgear has been sized correctly in the terms of three phase fault current withstand and that disconnection times are optimal to ensure safety of the installations. We provide in-depth reports for the design of both low voltage and medium voltage networks.



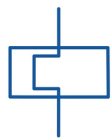
Earthing & EPR Survey

We conduct earthing potential rise surveys to ensure that earthing has been undertaken in the safest way possible, which is particularly important around MV/HV switchgear and substations. These surveys are crucial where there is a high potential of hazard to people or equipment.



EMC and Harmonics

We carry out strategic studies to ensure that your electrical design or installation complies with the Electromagnetic Compatibility (EMC) standards (IEC EN 61000). This can involve harmonic calculations, a power quality and harmonic survey, voltage studies and surge immunity studies.



Commissioning of HV Switchboards

To undertake the commissioning of HV Switchboards, including relay protection settings established for all Arc Flash Studies



HV and LV Arc Flash Studies

HV and LV Arc Flash Studies are used to identify the extent of a specific hazard within your facility and to minimise or mitigate the hazard when servicing the switchgear.



EMF Survey and Reports

Electromagnetic Field surveys and reports are used to detect magnetic fields in areas of work, hotels and offices. We provide EMF surveys and reports, compliant with WHO guidelines, for areas near MV/HV substations, transformers, ageing cables, undersized equipment and mobile phone masts.



Detailed Visual Survey, Compliance, Corrective Feasibility, Surveying

We carry out detailed surveys and feasibility studies to gather information, identify conditions, and make observations without the need for in-depth measurements or analysis.



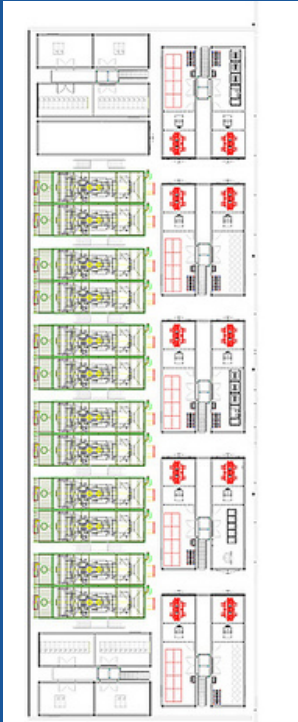
Nuisance Tripping Investigations, Fault Finding and Reporting

Resolving nuisance tripping issues often requires identifying and addressing the underlying cause to ensure reliable and uninterrupted electrical supply. We provide seamless process of fault finding and reporting to ensure the best solutions.

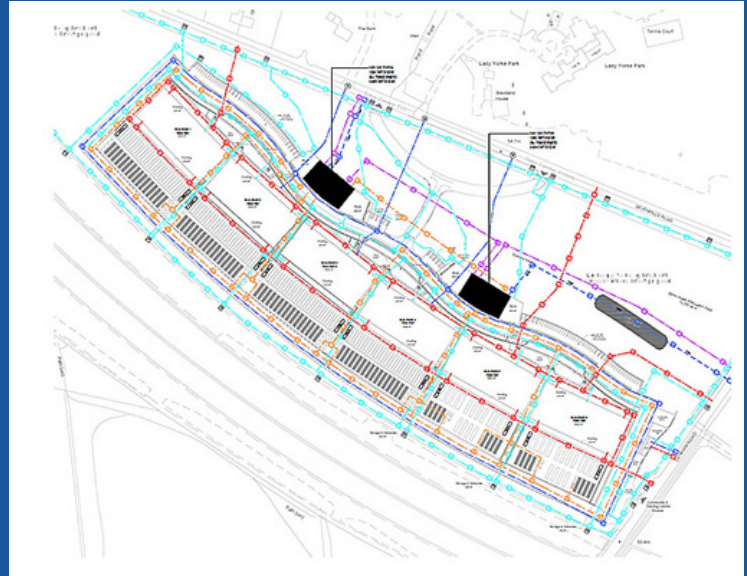
KIPO Stage 4 Level Drawings

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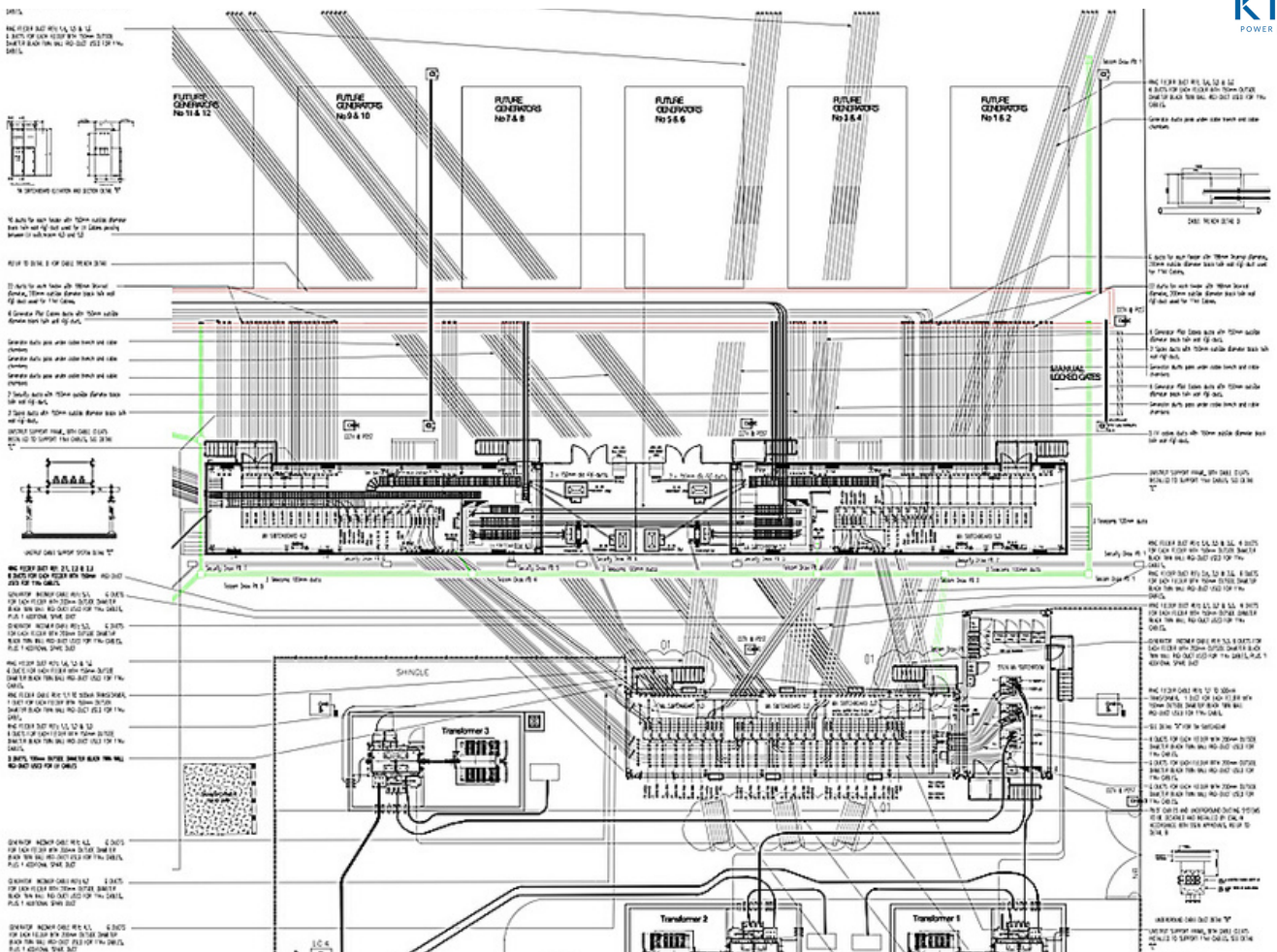
Detailed Layout of a
Generator Compound

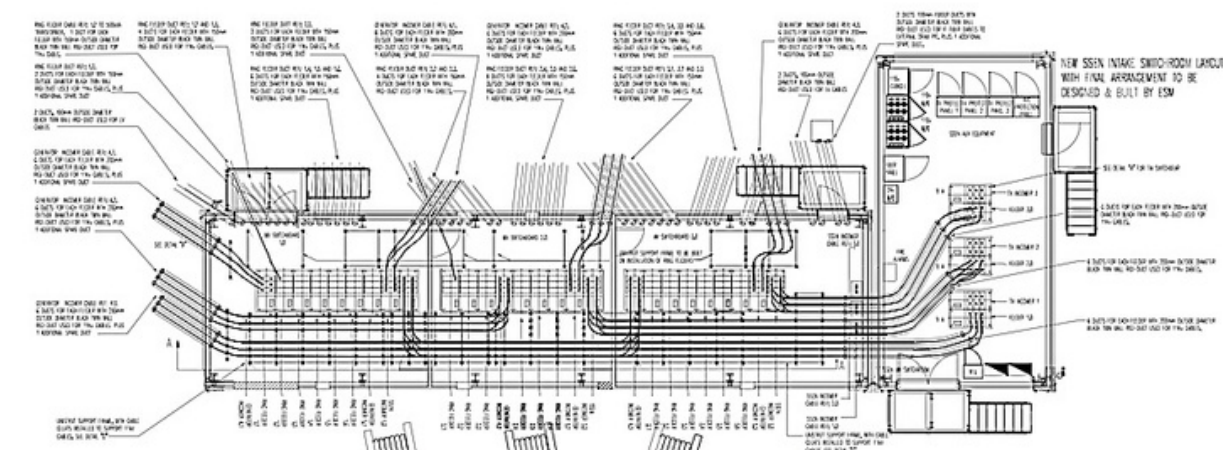
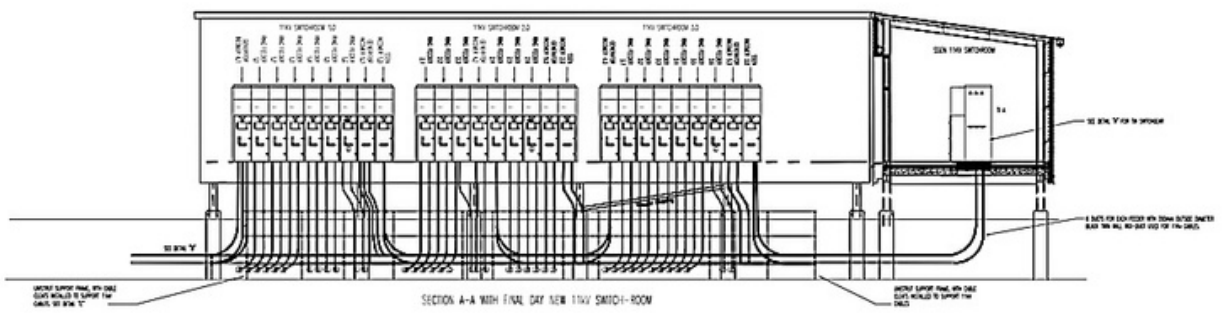
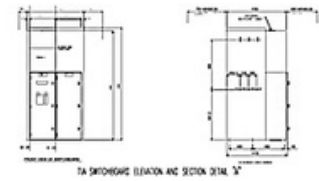
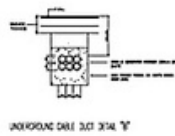
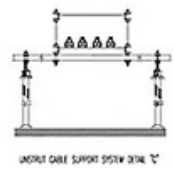
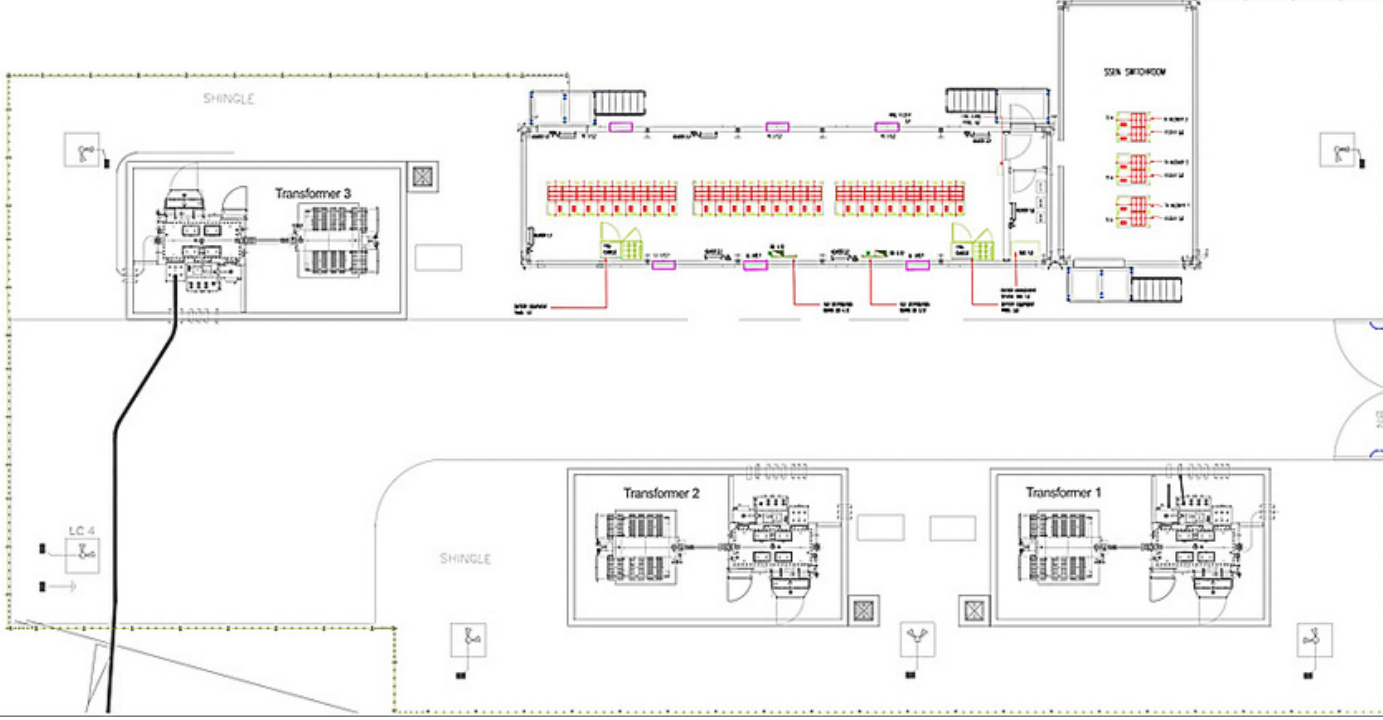
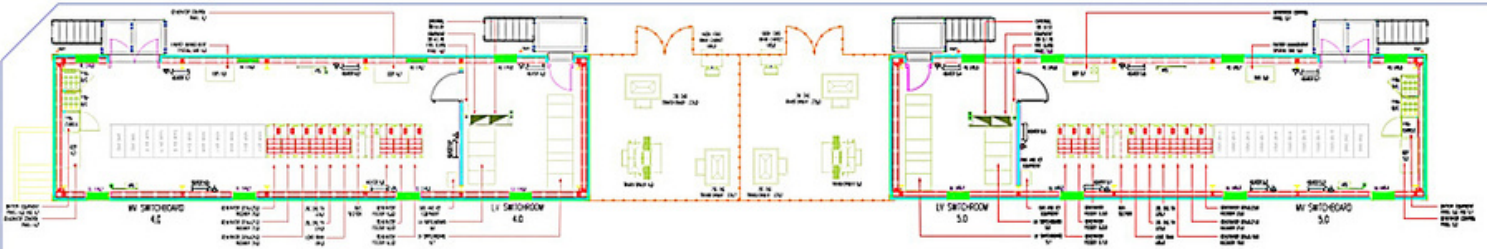


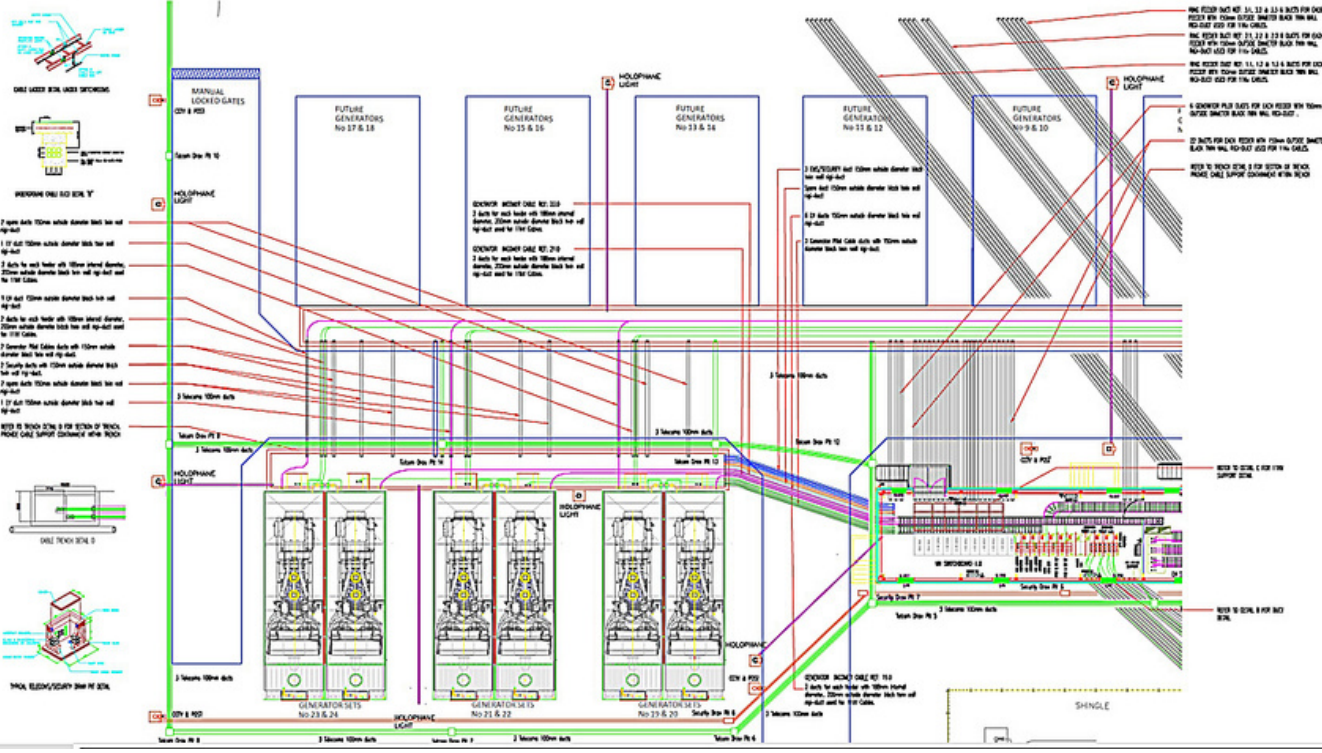
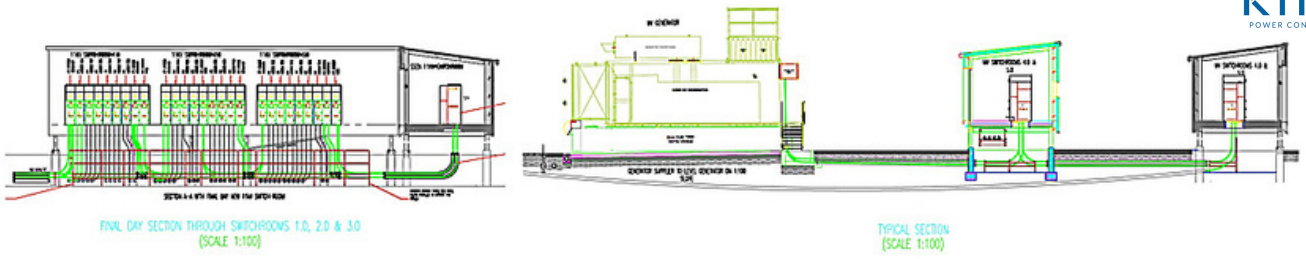
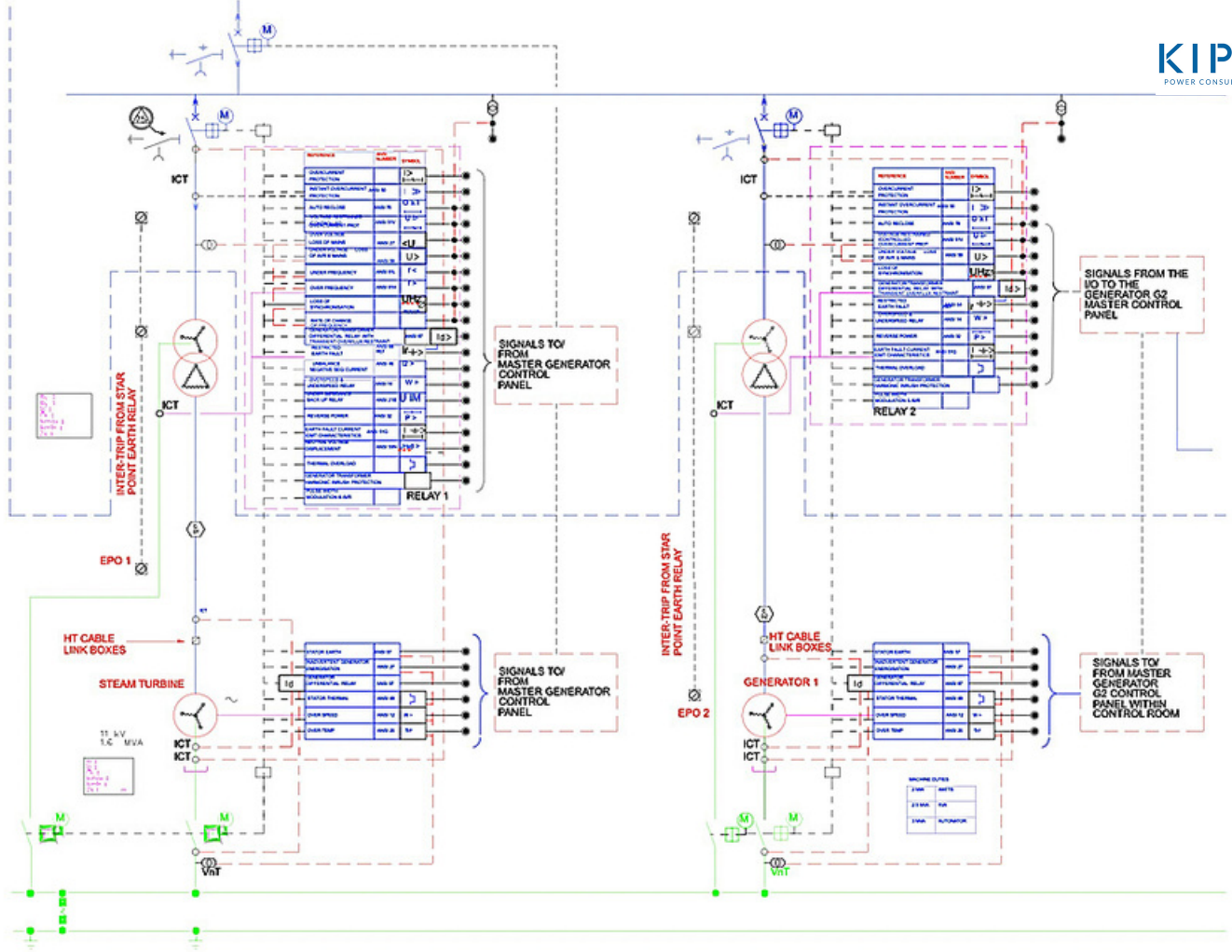
Concept Scheme



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A technician wearing a high-visibility yellow vest is working on a server rack. The technician is holding a red and black probe connected to a multimeter. The background shows a server rack with various cables and components.

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