

System Analysis and Protection Co-ordination Study for Riverside STW

Background



Thames Water Utilities (TWU) is a part of RWE Energy consortium. The company is a global specialist in water and wastewater operation, product and services, serving more than 51 million people in 46 countries. Thames Water Utilities (TWU) needed to expand and upgrade the electrical system at Riverside Sewerage Treatment Works (STW). In order to specify the new electrical equipment and to validate the capability of the existing equipment, TWU required system analysis and protection co-ordination study for the Riverside STW to be carried out. In addition to the parallel operation of the site generator and DNO system the plant required different supply arrangements for various loading conditions. ERA Technology Ltd conducted system analysis and protection co-ordination studies in order to ensure that new and existing electrical equipment would be suitable for

- proposed future load growth
- predicted maximum system fault level
- the provision of fast selective fault clearance.

Client: Thames Water Utilities (TWU)

Location: UK

Services Provided:

ERA conducted electrical power system analysis, including the provision of protection settings for all the protective devices from the 11kV Distribution Network Operator (DNO) intake point down to the main 415V distribution switchboards.

Benefits:

- specification and validation of electrical equipment
- Plan for future load growth
- Reliable protection system to safeguard equipment and site personnel.
- An electronics database of the electrical network for future in house investigation.
- Assistance in achieving project timescales.

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