

**Title:** Current Injection Transformer: Design and Build

**Relevant Workstreams:**

Workstream 4, Transition from AC to DC, as part of the FAN project. The objective of this workstream is to assess the implications of the high level of infiltration of DC in AC systems and develop mitigation measures where needed. Furthermore, to enable progressive transition we will evaluate the potential of repurposing AC infrastructure for DC applications.

**Project Description:**

To test cables at rated temperature, we need to be able to inject current into the cable to heat it via joule heating. To do this, we need an appropriately rated current injection transformer. This project is to design and build such a device.

**Specific Requirements:** A good background knowledge of transformers with practical skills for manufacture

**Resources:**

- We will provide modelling tools and expertise to help design the Current Injection Transformer
- Workshop facilities for the manufacture
- Funds for the purchase of materials (Copper, Steel etc) if required.