

## R&D Fund Project

### The Study of Ferrule Design and Performance



Crimped Connector



Mechanical Connector

#### Project Overview

A major contributor for underground cable breakdown is the joint failure, where the main component is the ferrule. In order to reduce the joint failure, the performance of each material inside the joints needs to be studied. Furthermore in Europe, the ferrule has been currently replaced with mechanical connectors in the joints. In this project, the comparison of these two (2) types of connectors will be studied and evaluated. This project was approved in September 2006 and is a continuation from an earlier project, entitled “Cable Joint Assessment Study” which was carried out by TNB Research Sdn. Bhd.

#### Deliverables

The deliverables of this project are :-

- a comparative analysis of ferrule and mechanical connector performances through electrical and mechanical test
- recommendations on the best type of connector to be used in the 11kV system

#### Benefits

The recommendations given are expected to reduce the occurrence of joint failure which in turn will result in reduced MV underground cable breakdown. Consequently, overall system reliability will be improved where with low numbers of breakdowns, the SAIDI can be minimised.