



Study Committee No : B3

WORKING BODY FORM

Group No : B3.10	Name of Convener : Frank Baldinger
TITLE of the Group : Primary /Secondary system interface modelling for total asset performance optimization	
Scope of work : The development of a guide with recommendations for substation asset managers: <ul style="list-style-type: none">• The work will start with a short summary of the reasons for change in a secondary system. For groups of reasons advices will be formulated on possible solutions of which most are already described in B5 reports which will be referenced.• Full focus is given to the interface between the conventional primary high voltage equipment and the secondary system in the light of the very long life of the primary equipment. All relevant IEC standards will be summarized.• Modelling of a long life interface solution that enables improvements on technical, economical and social performance criteria (total cost optimization, system reliability, manageability of fast aging technology).	
Activities: <ul style="list-style-type: none">• Summarizing the reasons for change from conventional to digital secondary systems: Extensions, equipment failure, obsolescence, standardisation, safety and security, risk of future failure, reliability and functional demands, maintainability, retention of knowledge, etc.• Consideration of the fast ageing of digital secondary systems compared to primary plant life time, with special emphasis on the conventional interface between the two systems. Development of new concepts for the interfacing of the two system parts to minimise refurbishment and replacement engineering, installation and site (life) testing. Define an interface principle that remains constant during the (remaining) life of the primary equipment. Investigating the possibilities of future secondary functionality upgrading without any primary outages by selecting a well defined long life interface border.• Study on possible improvements of the reliability of the secondary systems interface to switchgear. Surveys of SC A3 on circuit breaker controls will be used as input.• Study on possible improvements of primary equipment utilization and lifetime extension. For example the use of existing conventional protection current transformers for revenue metering by software profiling of the core so protection CT's can be used for metering.	
Deliverables: Produce a guide which will help the substation owner / asset manager with the evaluation and selection process of the optimal solution for the substation architecture. The result could also be presented on a suitable colloquium.	
Time schedule: Invitation for members to join work: 1 st half 2006 Total period needed approximately 2-3 years Draft report: 1 st half 2007 (comments from B5), Electra report 2 nd half 2008, Publication (guide) 1 st half 2008 Presentation to target groups in 2007-2008 during selected Cigre colloquia and symposia	
Target groups: <ul style="list-style-type: none">• internal: SC B3 & informative for B5• external: asset managers, utilities	
Communication means: <ul style="list-style-type: none">• web-site, colloquia and other suitable events.	
Members : mainly from SC B3, some from SC B5 for liaison, members to be selected	
Approval by TC Chairman : Aldo Bolza	Date : January 16, 2006