

Technical Program

SC B1 INSULATED CABLES

Preferential Subjects

PS 1: Technical challenges that have been overcome in newly installed underground and submarine cable systems

- Current state-of-the-art in the design of AC and DC submarine and underground traditional cable systems.
- Current state-of-the-art in cable systems installation techniques.
- Experiences of operation of cable systems.

PS 2: Key factors in current and foreseen development of cable systems

- Environmental impact.
- Balancing capital costs (including costs for Right of Ways) vs operational costs (including costs for operation and maintenance, social costs, losses, dismantling, etc).
- Prospects of UHV cable systems.

PS 3: State-of-the-art and trends for cable system testing

- Qualification, type testing, routine, sample, after installation testing of cable systems.
- Representation of installation and operational stresses in testing of cable systems
- Diagnostic testing of cable systems.

General Program for SC B1

- Monday 23rd August: Welcome of new National Members
- Tuesday 24th August: Study Committee B1 meeting
- Wednesday 25th August:
 - Submission of contributions
 - Preparation of the discussion
 - Poster Session (Morning)
- Thursday 26th August: Group Meeting

PS1: Technical challenges that have been overcome in newly installed underground and submarine cable systems

- ***B1-101 Dynamic Rating of Transmission Cables***
E. JACOBSEN, J. F. NIELSEN, S.B. NIELSEN, S. T. SALWIN, J.U. PETERSEN, W. NOLDEN, K-H COHNEN
- ***B1-102 The new technologies for replacement and upgrading of EHV cable lines in Japan***
S. TSUCHIYA, T. KIGUCHI, M. NISHIUCHI, S. KATAKAI, T. NAKAJIMA, M. OWASHI
- ***B1-103 Experiences in manufacturing, testing, installing and operating of 500 kV cable systems including PD monitoring***
A. AVILA
- ***B1-104 HVAC submarine cable links between Italy and Malta. Feasibility of the project and system electrical design studies***
L. COLLA, M. GABRIELI, A. ILICETO, M. REBOLINI, B. ZECCA, P. GRIMA, J. VASSALLO, S. LAURIA
- ***B1-105 200 kV DC extruded cables crossing the San Francisco Bay***
M. BACCHINI, R. GRAMPA, M. MARELLI, T. WESTERWELLER, D. PARQUET, S WEHN, D. LORDEN
- ***B1-106 NorNed - world's longest power cable***
J.E. SKOG, H. VAN ASTEN, T. WORZYK, T. ANDERSRØD
- ***B1-107 HV AC power transmission to the Gjøa platform***
M. JEROENSE, M. LARSSON-HOFFSTEIN, C. SONESSON, O. ELLEFSEN, T. TVEIT
- ***B1-108 Transition joints for connection of fluid filled to extruded cables from 33 kV to 400 kV***
J.G. HEAD, R. LEWIS, D. QUAGGIA, H. GEENE

PS1: Technical challenges that have been overcome in newly installed underground and submarine cable systems

- ***B1-109 Re-empowerment of 132 kV OF cables - Situation analysis***
A. VILLAFANE, L. BEITONE, A. MEDAGLIA, I. RUIZ
- ***B1-110 Statistic of failures on underground high voltage power cables in Brazil***
C.D. PEIXOTO, E.K. FILHO, N.H.G.R. DE LOUREDO
- ***B1-111 A novel method of restoring a 525 kV submarine cable following a catastrophic breakage of a termination at a cable landing site***
T. KOJIMA, S. CHERUKUPALLI, C. MCWHIRTER
- ***B1-112 Insulation state analysis of existing AC 10 kV XLPE distribution cables in Jiangsu power grid of China***
X. CAO, Y. XU, Y. LIU, J. LIU, Z. ZHANG, Y. FEI
- ***B1-113 Implementation and operation of a cable monitoring system in order to increase the capacity of a 220 kV underground cable***
M. SCHMALE, R. PUFFER
- ***B1-114 Development of the HVDC ± 250 kV MI submarine cable system in KOREA***
T.H. LEE, S.I. SHIM, S.Y. KIM, J.B. PARK, H.D. PARK, C.S. GO, I.H. LEE, S.I. JEON
- ***B1-115 34,5 kV submarine cables from Playa del Carmen to Cozumel Island, Mexico. Corrosion specification and operative experiences***
H. A. FLORES
- ***B1-116 Power loss and inductance of steel armoured three-core cables: comparison of “2.5D” FEA results and measurements***
J.J. BREMNES, G. EVENSET, R. STØLAN
- ***B1-117 New in land cable installation***
P. ANDERSSON, L. CARLSSON, M. JEROENSE, K. NILSSON
- ***B1-118 Fixing arrangements and accessories for flexibly installed HV cable systems in underground cable Tunnels***
A. BOOTH, A. HANEKOM

PS2: Key factors in current and foreseen development of cable systems

- ***B1-201 Minimising the impact on water resources when making, installing and operating an underground high voltage cable system***
P. MIREBEAU, P. ARGAUT, L. BÉNARD
- ***B1-202 Study of direct burial of high voltage underground cables***
P. HONDAA, N. BOUDINET, X. BOURGEAT, C. MOREAU
- ***B1-203 Assessment and technical trend for high reliable XLPE cable accessories for transmission line in Japan***
S. TSUCHIYA, S. UMEDA, S. NISHIKAWA, K. KIGUCHI, S. GOTOH, G. OKAMOTO
- ***B1-204 Upgrading of existing 400 kV FF HV cable link by redesigning and implementing forced cooling apparatuses in Vienna***
G. SVEJDA, M. WANDA, R. GASPARI, M. BECHIS

PS3: State-of-the-art and trends for cable system testing

- ***B1-301 Full-scale test on a 100 km, 150 kV AC Cable***
F. FARIA DA SILVA, W. WIECHOWSKI, C. LETH BAK, U. STELLA
GUDMUNSDOTTIR
- ***B1-302 A new concept for test equipment for testing large HV and UHV cables on-site***
P. MOHAUPT, A. BERGMAN
- ***B1-303 Experience of withstand testing of cable systems in the USA***
R.N. HAMPTON, J. PERKEL, J.C. HERNANDEZ, M. BEGOVIC, J. HANS, R. RILEY,
P. TYSCHENKO, F. DOHERTY, G. MURRAY,
L. HONG, M.G. PEARMAN, C.L. FLETCHER, G.C. LINTE
- ***B1-304 On-site commissioning test and diagnostics of 220 kV XLPE cable system***
M.M. AWAD, F. TAHOUN, A. EL FARASKOURY, O.E. GOUDA
- ***B1-305 Use of on-line UWB PD techniques to evaluate a 161 kV underground cable after repetitive joint failures***
V.R. GARCIA-COLON
- ***B1-306 Partial discharge monitoring system for high voltage cables***
F. GARNACHO, M.A. SANCHEZ URAN, F. ALVAREZ, J.L. VALLEJO, A. GUERRA