ETD 48

Shri K Rajaram

Oblum Electrical Industries Pvt Ltd

STANDARDIZATION IN THE FIELD OF UHV AC TRANSMISSION SYSTEMS

Standardization in the field of AC transmission technology at 1000 kV and above, comprising systems-oriented guidance such as that for planning, design aspects, technical requirements, construction, commissioning, reliability, availability, operation and maintenance, processes for specifying requirements and demonstrating whether the required performance of UHV systems is assured.

Power Grid Corporation of India Limited Shri B N De Bhowmick Chairman Power Grid Corporation of India Bureau of Indian Standards Ms Neha Agarwal Member Secretary ABB Ltd. Shri Nihar Raj Principal Shri Nihar Raj Principal Shri Nihar Raj Alternate Shri Ravindra Kumar Tyagi Aditya Birla Insulators Co. Shri Vikas Khosla Principal Shri Govind Shrivastava Principal Shri Govind Shrivastava Principal Shri Rakesh Singh Principal Shri Dipak Kumar Mandal Alternate CEA Shri Vikas Mohapatra Principal Shri S.K.R. Mohapatra Principal Shri S.K.R. Mohapatra Principal Shri Y.K. Swamkar Alternate CG power & Industrial solutions Ltd Shri D Johnyesuraj Principal Shri Pjithin Pauly Alternate Central Power Research Institute Dr. Pradeep M Nirgude Principal Shri BIPIN B. SHAH Principal Kalki Communications Technologies Ltd Shri BIPIN B. SHAH Principal Shri S.HAH Principal Shri S.HAH Principal Shri SUJAL B. SHAH Principal Shri SUJAL B. SHAH Alternate Larsen & Toubro Ltd	
Bureau of Indian Standards Ms Neha Agarwal Member Secretary ABB Ltd. Shri S B R Rao Shri Nihar Raj Principal Shri Vishal Dubey Alternate Aditya Birla Insulators Co. Shri Vikas Khosla Principal Arewa T&D India Ltd (ALSTOM) Shri Sovind Shrivastava Principal Shri Raiye Gandhi Raychem RPG Pvt Ltd. Shri Sasi kumar Shri Govind Shrivastava Principal Shri Simivas Gopa Shri Simivas Gopa Shri Kaustuv Roy Shri Dipak Kumar Mandal Alternate CEA Shri Vikan Mohapatra Principal Shri Kaustuv Roy Shri Virendra Lakhiani Shri S.K.R. Mohapatra Principal Shri Y.K. Swarnkar Alternate CG power & Industrial solutions Ltd Shri D Johnyesuraj Principal Shri Manish yadav Alternate Central Power Research Institute Dr. Pradeep M Nirgude Principal Shri P Jithin Pauly Alternate Kalki Communications Technologies Ltd Shri BIPIN B. SHAH Principal KEC International Limited Shri BUAL B. SHAH Principal Shri SUJAL B. SHAH Principal Shri SUJAL B. SHAH Alternate	Principal
Ms Neha Agarwal ABB Ltd. Shri S B R Rao Shri Nihar Raj Shri Vishal Dubey Aditya Birla Insulators Co. Shri Vikas Khosla Areva T&D India Ltd (ALSTOM) Shri Sovind Shrivastava Principal Shri Asis kumar Shri Sasi kumar Shri Sasi kumar Shri Srinivas Gopa Shri Rakesh Singh Principal Shri Ainivas Gopa Shri Rakesh Singh Principal Shri Nimar Mandal Alternate Transformers & Rectifier (I) Ltd CEA Shri S.K.R. Mohapatra Principal Shri AniruddhaJhala Alternate CG power & Industrial solutions Ltd Shri D Johnyesuraj Principal Shri Manish yadav Alternate Central Power Research Institute Dr. Pradeep M Nirgude Principal Shri Alternate Kalki Communications Technologies Ltd Shri E.V.Rao Principal KEC International Limited Shri BIPIN B. SHAH Principal Kalpa Taru Power Transmission Ltd. Shri S.U.A.B. SHAH Principal Shri S.U.A.B. SHAH Alternate	ia Limited
ABB Ltd. Shri Nihar Raj Shri Vishal Dubey Alternate Aditya Birla Insulators Co. Shri Vishas Khosla Principal Areva T&D India Ltd (ALSTOM) Shri Sasi kumar Shri Govind Shrivastava Principal Bharat Heavy Electricals Ltd. Shri Shri Sinivas Gopa Shri Dipak Kumar Mandal Alternate CEA Shri Vishas Mospa Principal Shri Shri Kaustuv Roy Shri Dipak Kumar Mandal Alternate Transformers & Rectifier (I) Ltd. Shri Virendra Lakhiani Shri Y.K. Swamkar Alternate CG power & Industrial solutions Ltd Shri Manish yadav Alternate Central Power Research Institute Dr. Pradeep M Nirgude Principal Shri PJithin Pauly Alternate Kalki Communications Technologies Ltd Shri E.V.Rao Principal KEC International Limited Shri BIPIN B. SHAH Principal Kalpa Taru Power Transmission Ltd. Shri SUJAL B. SHAH Alternate	Principal
Shri Nihar Raj Principal Shri Vishal Dubey Alternate Shri Ravindra Kumar Tyagi Aditya Birla Insulators Co. Shri Vikas Khosla Principal Raychem RPG Pvt Ltd. Shri Sasi kumar Shri Govind Shrivastava Principal Siemens Ltd. Bharat Heavy Electricals Ltd. Shri Rakesh Singh Principal Shri Kaustuv Roy Shri Dipak Kumar Mandal Alternate Transformers & Rectifier (I) Ltd CEA Shri Virendra Lakhiani Shri S.K.R. Mohapatra Principal Shri AniruddhaJhala Shri Y.K. Swamkar Alternate CG power & Industrial solutions Ltd Shri D Johnyesuraj Principal Shri Manish yadav Alternate Central Power Research Institute Dr. Pradeep M Nirgude Principal Shri BIPIN B. SHAH Principal KEC International Limited Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Principal	
Shri Vishal Dubey Alternate Shri Ravindra Kumar Tyagi Aditya Birla Insulators Co. Shri Vikas Khosla Principal Raychem RPG Pvt Ltd. Areva T&D India Ltd (ALSTOM) Shri Sasi kumar Siemens Ltd. Shri Govind Shrivastava Principal Shri Sinivas Gopa Shri Rakesh Singh Principal Shri Kaustuv Roy Shri Dipak Kumar Mandal Alternate Transformers & Rectifier (I) Ltd CEA Shri Virendra Lakhiani Shri S.K.R. Mohapatra Principal Shri AniruddhaJhala Shri Y.K. Swamkar Alternate CG power & Industrial solutions Ltd Shri D Johnyesuraj Principal Shri Manish yadav Alternate Central Power Research Institute Dr. Pradeep M Nirgude Principal Shri BiPin B. SHAH Principal KEC International Limited Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BiPin B. SHAH Principal Shri SUJAL B. SHAH Principal	Alternate
Aditya Birla Insulators Co. Shri Vikas Khosla	
Shri Vikas Khosla	Second Alternate
Areva T&D India Ltd (ALSTOM) Shri Govind Shrivastava	
Shri Govind Shrivastava Principal Siemens Ltd. Shri Baharat Heavy Electricals Ltd. Shri Rakesh Singh Principal Shri Kaustuv Roy Shri Dipak Kumar Mandal Alternate Transformers & Rectifier (I) Ltd. CEA Shri Virendra Lakhiani Shri S.K.R. Mohapatra Principal Shri AniruddhaJhala Shri Y.K. Swamkar Alternate CG power & Industrial solutions Ltd Shri D Johnyesuraj Principal Shri Manish yadav Alternate Central Power Research Institute Dr. Pradeep M Nirgude Principal Shri P Jithin Pauly Alternate Kalki Communications Technologies Ltd Shri BIPIN B. SHAH Principal KEC International Limited Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	
Shri Rakesh Singh Principal Shri Kaustuv Roy Shri Dipak Kumar Mandal Alternate Transformers & Rectifier (I) Ltd CEA Shri Virendra Lakhiani Shri S.K.R. Mohapatra Principal Shri AniruddhaJhala Shri Y.K. Swarnkar Alternate CG power & Industrial solutions Ltd Shri D Johnyesuraj Principal Shri Manish yadav Alternate Central Power Research Institute Dr. Pradeep M Nirgude Principal Shri P Jithin Pauly Alternate Kalki Communications Technologies Ltd Shri BIPIN B. SHAH Principal KEC International Limited Shri BIPIN B. SHAH Principal Kalpa Taru Power Transmission Ltd. Shri BUJAL B. SHAH Alternate	Principal
Shri Rakesh Singh Principal Shri Kaustuv Roy Shri Dipak Kumar Mandal Alternate Transformers & Rectifier (I) Ltd CEA Shri Virendra Lakhiani Shri S.K.R. Mohapatra Principal Shri AniruddhaJhala Shri Y.K. Swarnkar Alternate CG power & Industrial solutions Ltd Shri D Johnyesuraj Principal Shri Manish yadav Alternate Central Power Research Institute Dr. Pradeep M Nirgude Principal Shri P Jithin Pauly Alternate Kalki Communications Technologies Ltd Shri BIPIN B. SHAH Principal KEC International Limited Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	
Shri Dipak Kumar Mandal Alternate Shri Virendra Lakhiani Shri S.K.R. Mohapatra Principal Shri AniruddhaJhala Shri Y.K. Swarnkar Alternate CG power & Industrial solutions Ltd Shri D Johnyesuraj Principal Shri Manish yadav Alternate Central Power Research Institute Dr. Pradeep M Nirgude Principal Shri P Jithin Pauly Alternate Kalki Communications Technologies Ltd Shri BIPIN B. SHAH Principal KEC International Limited Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	Principal
CEA Shri Virendra Lakhiani Shri S.K.R. Mohapatra Principal Shri AniruddhaJhala Shri Y.K. Swarnkar Alternate CG power & Industrial solutions Ltd Shri D Johnyesuraj Principal Shri Manish yadav Alternate Central Power Research Institute Dr. Pradeep M Nirgude Principal Shri P Jithin Pauly Alternate Kalki Communications Technologies Ltd Shri BIPIN B. SHAH Principal KEC International Limited Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	Alternate
Shri S.K.R. Mohapatra Principal Shri AniruddhaJhala Shri Y.K. Swarnkar Alternate CG power & Industrial solutions Ltd Shri D Johnyesuraj Principal Shri Manish yadav Alternate Central Power Research Institute Dr. Pradeep M Nirgude Principal Shri P Jithin Pauly Alternate Kalki Communications Technologies Ltd Shri BIPIN B. SHAH Principal KEC International Limited Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	td.
Shri Y.K. Swarnkar Alternate CG power & Industrial solutions Ltd Shri D Johnyesuraj Principal Shri Manish yadav Alternate Central Power Research Institute Dr. Pradeep M Nirgude Principal Shri P Jithin Pauly Alternate Kalki Communications Technologies Ltd Shri BIPIN B. SHAH Principal KEC International Limited Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	Principal
CG power & Industrial solutions Ltd Shri D Johnyesuraj Principal Shri Manish yadav Alternate Central Power Research Institute Dr. Pradeep M Nirgude Principal Shri P Jithin Pauly Alternate Kalki Communications Technologies Ltd Shri BIPIN B. SHAH Principal KEC International Limited Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	Alternate
Shri D Johnyesuraj Shri Manish yadav Alternate Central Power Research Institute Dr. Pradeep M Nirgude Principal Shri P Jithin Pauly Alternate Kalki Communications Technologies Ltd Shri BIPIN B. SHAH Principal KEC International Limited Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	
Shri Manish yadav Central Power Research Institute Dr. Pradeep M Nirgude Shri P Jithin Pauly Alternate Kalki Communications Technologies Ltd Shri BIPIN B. SHAH Principal KEC International Limited Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	
Central Power Research Institute Dr. Pradeep M Nirgude Principal Shri P Jithin Pauly Alternate Kalki Communications Technologies Ltd Shri BIPIN B. SHAH Principal KEC International Limited Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	
Dr. Pradeep M Nirgude Principal Shri P Jithin Pauly Alternate Kalki Communications Technologies Ltd Shri BIPIN B. SHAH Principal KEC International Limited Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	
Shri P Jithin Pauly Kalki Communications Technologies Ltd Shri BIPIN B. SHAH Principal KEC International Limited Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	
Kalki Communications Technologies Ltd Shri BIPIN B. SHAH Principal KEC International Limited Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	
Shri BIPIN B. SHAH **Principal** KEC International Limited** Shri E.V.Rao **Principal** Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH **Principal** Shri SUJAL B. SHAH **Alternate**	
KEC International Limited Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	
Shri E.V.Rao Principal Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	
Kalpa Taru Power Transmission Ltd. Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	
Shri BIPIN B. SHAH Principal Shri SUJAL B. SHAH Alternate	
Shri SUJAL B. SHAH Alternate	
Larsen & Toubro Ltd	

Principal