



Phil Hopkinson is an IEEE Life Fellow and long service Transformer Engineer. He received his BS in EE from Worcester Polytechnic Institute in 1966. He also graduated from GE's Advanced Engineering Course in 1970 and simultaneously received his MS in System Science (EE) from Brooklyn Polytechnic Institute. From 1966 to 2002, Phil held numerous design and engineering management assignments in the transformer businesses of GE, Cooper Power Systems and Square D Co in liquid filled, dry, and cast resin transformers of all power ratings and voltage classes. In 2001, Phil formed a power transformer consulting company, called HVOLT Inc. and since 2002 has managed HVOLT full time. He currently holds 15 US patents, is a Registered Professional Engineer in North Carolina, and is Technical Advisor (TA) to the US National Committee

for IEC TC14 for Power Transformers and past TA for IEC TC 96. He has authored IEEE Transactions papers on the effects of DBPC in Transformer Oil, on Low Voltage surge phenomena in Distribution Transformer windings, panel sessions on Natural Ester Fluids at the 2006 IEEE Transmission and Distribution Meeting and the 2009 IEEE PES General Meeting, led a panel session on High Voltage Bushing Failures at the IEEE 2010 General Meeting, co-authored a paper at the 2011 Doble International Conference, has Chaired NEMA's activities and was primary author of NEMA TP-1 Guide for Energy Efficiency for Distribution Transformers. He has conducted seminars on Circuit Breaker Switching and Transformer Interaction at the IEEE Transformers Committee in 2003 and 2007, the DOBLE International Conference in 2006, and has investigated numerous transformer failure incidents related to switching. He continues into 2014 giving seminars on switching transients for manufacturers and users world-wide. He led an IEEE Panel Session in 2011 to examine High Voltage Bushing failures and co-authored a Doble paper on the same aspects relating to bushings and switching transients. In 2013, he published a Doble paper on Wind Power Transformers. He has chaired many IEEE and NEMA Working Groups and is heavily involved with US Energy Policy at the IEEE USA Committee and the IEEE PES Policy Development Coordinating Committee. An important accomplishment was the issuance of the IEEE Power and Energy Society Policy on Energy and Environment (adopted by the Board of Governors in 2007) and the IEEE USA policy on Energy and the Environment issued in 2009. In December, 2012 he was awarded the IEEE Standards Medal. In 2013 he was awarded the IEC 1906 award for his work to improve harmonization of North American and International Standards globally.

Phil continues to work closely with NEMA, the transformer manufacturers across the industry and the US Department of Energy on new definitions for energy efficient transformers. In 2012 he received a CLASP (Collaborative Labeling and Appliance Standards Program) contract to develop International Standards on Transformer Energy Efficiency which ended in 2013. He also works with IEEE and the IEC to harmonize power and distribution transformer standards toward the improvement of global trade with fewer trade barriers.