Dear Readers,

In the previous issue of Transformers Magazine, my message highlighted how the information on the technology and market trends that the magazine brings can help companies to stay updated and increase their ability to respond promptly to ever-changing requirements and conditions in the industry. Following this, I had discussions with people at some industry events who showed more interest in this, and held presentations on this matter. Considering the stirred interest, I would like to point to important aspects that emerged out of these discussions – one of which is the reliability of transformer operation.

I think there is some kind of a consensus that reliability is a number one requirement driving technology trends today, among other requirements such as extending asset lifetime, reducing operational costs and reducing the impact on the environment. For some applications there are equally important requirements that concern overloading capability, reduction of size/weight, enabling instead of reduced energy, etc.

Coming back to reliability, let me quote a statement that was recently published in our magazine: “Every day across the United States, half a million people on average are impacted by power outages, which carry an estimated annual cost of at least $150 billion and rising.”

Taking into account that these figures refer to the U.S. only, we can only imagine what the global figures are. That being said, blackouts are the nightmare of today’s energy industry, no matter where in the world utilities operate. Therefore, solutions which help increase reliability, i.e. help avoid failures or decrease the impact of failures on the society are precious. I would like to point out some of them, such as the solutions for prevention of transformer explosion which are available for power transformers and are expected to be available for distribution transformers in the near future; a shift to ester liquids due to the fire safety they provide; online monitoring, etc. There are many other solutions that we have published about.

What is important here is that these solutions have to be reliable enough so as not to reduce transformer reliability. I recall a discussion at a conference last year, when we, for the sake of argument, discussed how far the applicability of online DGA systems can go. This brought up a question if it would be useful to have some kind of a micro DGA system for installation on bushings. It