



Dear Readers,

The idea about a transformers magazine was born from discussions on LinkedIn Transformers forum, where people worldwide, from over 130 countries, take part in 24/7 discussions, share their experiences and learn about the latest issues related to transformers. There is a truly wide range of broad, comprehensive

topics which include all aspects of transformers' lifetime and its components such as: parameter specifications from the grid viewpoint, including smart grid, reliability and efficiency, design, manufacturing, testing, operation and maintenance, protection, monitoring, diagnosis, failure, research of the failure causes, standards, education etc.

Some of the most accomplished experts have told me that through the forum they can still expand as well as refresh their knowledge, despite spending decades in the transformers field in the best possible environment. The content is specifically valuable to the somewhat less experienced, those with limited knowledge in this field. In order to prevent the content from being lost somewhere in virtual world in the electronic form, the idea of a magazine was born. A group of more active transformer community members made great effort in preparation of the magazine and, despite their numerous private and work commitments, the magazine has become a reality.

The website has been active for some time now, and it regularly brings current global news related to transformers. The comments received so far have been very positive and encouraging, especially for the website maintenance team who endeavour not only to keep up the good work but to also strive for improvement in time.

Print magazine brings technical articles regarding the most recent topics, with a particular focus on efficiency increasing solutions and solutions for smart grid.

Influence of transformers on the environment is often si-

gnificantly underestimated, probably because it is a highly efficient device with efficiency at rated load even greater than 99%. However, the efficiency on a system scale is not so high, due to a series of transformers on the electricity's way from power plants to consumers, due to loading lower than rated, and due to lower efficiency of smaller transformers.

It is estimated that about 10% of globally generated electricity is dissipated in grid losses, 40% of that being the losses in transformers. That means 4% of globally generated electricity is wasted in transformers. Significant power generation (and transmission) capacity and corresponding energy resources are needed just to supply transformer losses globally, which is a huge amount and a solid potential for reduction of the environmental impact.

The additional problem is that transformer fleet ages globally. This significantly increases not only financial risks for utilities and industry, but also the risk of even larger environmental impact.

Therefore, we encourage thinking and writing about solutions and strategies to lower environmental impact through further increase of efficiency, i.e. lower CO emission, failure prevention, extension of transformer lifetime, and decrease of other risks, particularly risks of endangering people's lives and health. We would like to use this opportunity to invite you to participate in creation of the Transformers Magazine upcoming issues.

The first issue covers some of the fundamental topics such as reviews of transformer types, insulation design, diagnosis, lifetime, failure research and transformer replacement.

I wish you a pleasant reading.

Mladen Banovic , Editor in Chief