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Dear Readers,



If you examine closely the topics we will discuss in this issue, you will find many themes ranging from rural areas electrification projects to megacities. Megacities and rural areas are two extreme cases for transformers. Rural areas, which are usually vast and scarcely populated, have simpler technical requirements, however, the building of needed infrastructure is harder to finance. Densely populated urban areas, where many people live in a smaller area, usually have the finances for infrastructure projects but the technical requirements are extremely demanding. Since megacities are to some extent the highlight of this issue, let me say something about this topic.

Namely, according to the UN definition, megacity is a city or urban area that has more than 10 million inhabitants. Also, according to the UN by 2050 about 68 % of the global population will live in urban areas. There are already huge mega clusters worldwide, 28 of them, with nearly 500 million people, what makes 6.5 % of the world's population. More than half of these megacities are situated in Asia.

Some megacities have tens of millions inhabitants. Thinking in terms of the vast amount of energy needed for so many people, interesting questions emerge. The first one is how to deliver enough energy for tens of millions inhabitants living in a relatively small space, including all the additional needs for energy required by industry, transportation, construction, medical facilities, services, etc.? The second is how to ensure the continuity. i.e. reliability of energy supply, because the power outage is usually not an option? Thirdly, how to distribute the energy efficiently with lower losses. How to ensure that the energy is mostly generated from renewable sources? How to cope with extremely high energy demand in megacities? How to operate the grid, keep it running under such difficult conditions and, most importantly, how to ensure grid's stability and electricity supply? There are no easy or simple answers to these questions, but this does open new avenues for development and innovation. One of this issue's interviews offers more insight on the topic.

In this issue, we bring you four high-profile interviews – an interview with a general manager, talking about megacities and the conference they are organizing on this topic; an interview with the general manager of a growing transformer insulation manufacturer; an interview with the CEO of a transformer manufacturing company supplying high-quality, custom and one-off transformers for demanding environments and applications; and an interview with a senior manager talking about new values for transformer OEMs created by combining high-performance materials with high-performance machines.

In addition to our regular columns that bring fresh commentary on the latest market trends and topics related to condition monitoring and water in transformer, in this issue we introduce a new column dealing with supply chain management. Developing a corporate know-how for supply chain management is an important element of operating a successful transformer business and we hope that this column will be a good resource of knowledge about the topic.

A selection of technical articles and advertorials present a range of topics including digital connectivity, testing and diagnostics, transformer manufacturing technology, dry-type insulation, transport monitoring, and more.

Feel free to contact us with commentary on any of the topics and issues covered in the magazine, or to express intent to present your research or point of view on any other topic of interest involving our industry. For any questions on how to publish your work with us, contact us at info@merit-media.com.

I wish you a joyful reading!

Mladen Banovic, Editor-in-Chief