

Dear Readers,

There has been a significant change in the past decade relating to specifications for transformer purchases. The pendulum has swung from a heavy reliance on engineering input to procurement-driven specifications. What does this mean for us engineers who used to be the final say on what was specified and where we were allowed, even encouraged, to work directly with potential bidders to develop the very best specifications? We had things our way for a long time.

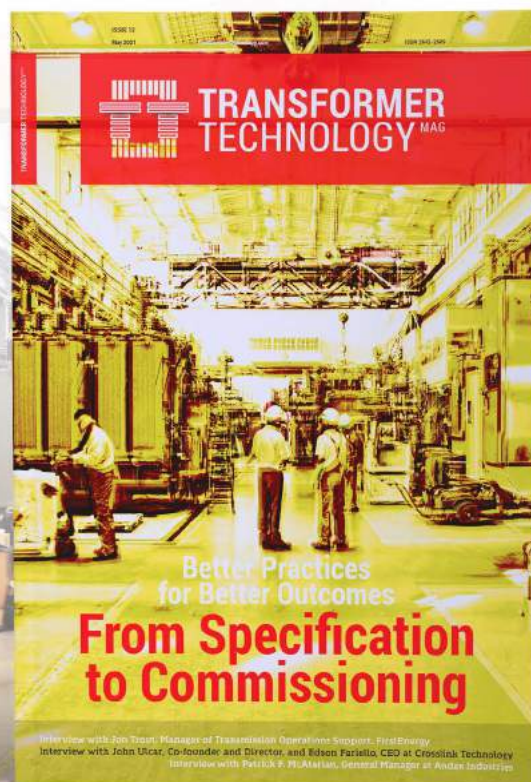
However, that came with a cost, with less regard for the actual cost of the asset and more focus on the application of the asset. In my world of reliability, that was great given that *all reliability begins in the design phase* - I cannot emphasize that enough. That is true of the assets like transformers, circuit breakers, cables etc., but it is also true for the entire system those assets make up. For substation reliability, every asset must meet a required specification that is compliant to the standard for reliability you demand of the system. When assets fail, the system fails.

More than likely, we may have over-engineered or overbuilt assets as a result. Robustness of transformers is legendary. Prior to becoming the President of the Electric Power Reliability Alliance (EPRA), I worked for SDMyers as the VP of Reliability and every year we celebrated the birthday of all of the transformers that we tested the previous year with a life of over 100 years.

Think about that! What other major asset can you name that has 100-year-old critical equipment? Not many, if any. This is what an engineering focus on design and specification creates.

But as the advancement of procurement systems and the advent of purchasing guidelines became more prevalent, cost cutting became the mantra of the day, and it still rules today. Try to meet with bidders on large asset purchases in a more commoditized marketplace, like transformers have become, and it is likely you won't be able to. I believe this creates a huge gap in specifications. Transformers are unique based on so many factors, such as footprint, application, ratings, clearances and a myriad of other factors, and it is a shame that the process of creating the specifications cannot take advantage of the tremendous knowledge and experience of the better OEMs. Low purchasing cost will not likely lead to the lowest Total Cost of Ownership (TCO), another major reliability principle, or create systems that are able to withstand significant analogies - weather events, grid resilience events and more.

However, I see the shift coming back to a point of equilibrium, with the better procurement professionals and systems addressing the need for more collaboration in the design and specifications processes. That balance will allow engineering to have a more important say in the process, without sacrificing value over cost. Value is TCO. Cost is not value.





In transformer design, the pendulum has swung from a heavy reliance on engineering input to procurement-driven specifications. As the advancement of procurement systems and the advent of purchasing guidelines became more prevalent, cost cutting became the mantra of the day, and it still rules today.

While most of our articles and interviews in this issue do not address this pendulum shift, they do approach specification, transportation and commissioning in a very special way. I am very proud of all of our authors and interviewees who are passionate and committed to meeting the needs of the practitioners, balancing the procurement requirements and presenting great content to be added to the Transformer Technology Body of Knowledge (BoK).

I am sure that you will enjoy this.



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