Do we really need Smart Grids?

The buzz word of our time is "Smart Grids". It seems that suddenly everything has to become "Smart". When I look at this it makes me start to think…

Does our sudden interest for "Smart Grids" mean that up to now everything we did was stupid? I don't think so.

When I look back at my first years as an engineer in the power industry I have to say that I had some extremely smart colleagues who tried to teach me everything there was to know about power systems and their behavior. And I can say I had to learn a lot!

Until recently smart engineers handled the most complex issues without grids being as "smart" as we believe everything should be today. Given the fact that electricity has become a reliable commodity in our society and that we all heavily rely on it, must mean that they have done something right.

Why is it then that we believe that, to solve the issues of our ages, we have to throw technology at everything? I was brought up with the philosophy that simple was better.

So why are we making things more complex then? In some cases we make them so complicated

that even the smartest of engineers have trouble following what is going on. Are we trying to compensate for the fact that we are no longer smart enough ourselves or is there some other, deeper, reason why we are doing this?

When I try answering these questions myself I struggle to come up with answers. On the one hand I strongly believe that a combination of all the available information existing today within so-called islands of automation, can lead to better and even simpler solutions. Which allow utilities to deal with today's challenges when operating a power system in a more efficient way. On the other hand however I get the feeling that we are making things unnecessarily complex by throwing technology at any problem we try to solve. So what is the true answer?

As so often I believe the truth lies in the middle. Yes, we can improve the utility business by combining information and using the newest technologies. On the other hand I also believe that it is wise to think before we act. We should remember that automation for the sake of automating has never led to cost effective solutions. So pursuing "Smart Grids" for the sake of having "Smart Grids" will in my opinion not lead to long-lasting, feasible solutions.

So what should we do? We should never forget to ask at least one important question. "Why are we doing this?" When we start answering this question we will most likely find the right answers to what we really need to do and when.

So I look forward to seeing many new "Smart Solutions" that are being built for all the right reasons.

Biography

Marco C. Janssen graduated the Polytechnic in Arnhem, The Netherlands and further developed his professional skills through programs and training courses. He is President and Chief Commercial Officer of UTInnovation LLC – a company that provides consulting and training services in the areas of protection, control, substation automation and data acquisition, and support on the new international standard IEC 61850, advanced metering and power quality. He is a member of WG 10, 17, 18, and 19 of IEC TC57, the IEEE-PES and the UCA International Users Group.