Sector AMEU/SAIEE joint virtual webinar "THE DIGITAL MUNICIPAL Dx ELECTRICTY UTILITY OF THE FUTURE" 10 August 2022

Session 1 (Theory/Case Study) "The Systems Roadmap of the Digital Utility" By J Rakesh Maharaj







The Evolving Systems Landscape of the Digital Utility

- The digitalized utility is a data hungry beast facing an "explosion" of data coming from a variety of sources.
- The future digital utility will consist of real-time market architecture, virtual and dynamic data integration and a living network model
- The modern grid will facilitate bidirectional flow of energy between the grid and end users with the help of IoT and big data, which will connect devices directly to the grid.
- This will also enable the monitoring of consumption and energy wastage patterns.
- Reliability, resilience and customer engagement will become the three mainstays of future smart grid networks.
- This "big data," contains valuable information to improve reliability, costeffectiveness, energy efficiency, operations, planning, and asset and outage management, as well as the customer experience and grid resilience.





The System Roadmap of the Digital Utility

10years









The South African Electricity Utility Challenge

- Most electricity utilities in South Africa share an "antagonistic" relationship with their customer or at best a tolerance that the utility is doing the minimum it should!
- The almost daily service delivery protest in some part of the country is symptomatic of the failed trust relationship between utility and consumer with electricity or water being the lead agitator in most cases
- Non Eskom electricity utilities have been hiding behind the "Cloak of Darkness" that load shedding has brought, with the real state of the distribution network in its entirety including Eskom, being in Intensive Care with no physician in attendance
- At the most basic level, many utilities do not have:
 - Systems or processes to support the business model
 - Asset registers or knowledge of the state of health of those assets
 - A complete record of customers with a handle on sales, billing and revenue collection
 - A funded strategy to get out of the current **CRISIS**













Roadmap to Digitalisation







THANK YOU

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