

**Impact of asset management and condition monitoring  
on grid reliability**

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**Abstract**

The regulatory constraints and the global Energy efficiency objectives are driving Electric Grid Operators toward continuous improvement of their CAPEX and OPEX expenditures. This has brought an increased focus on how to reduce the cost of inventory stock, optimise maintenance expenditure and extend asset life using modern Asset Management Systems, in order to support these improvement initiatives. At the same time an operational emphasis has been placed on operating network assets as close to their safe operating capacity as possible. The use of EMS and DMS Control Centers are enabling this by providing the network security analysis required to mitigate the risk of equipment failure and the subsequent huge losses that can result. However, determination of these safe operating limits is also a challenge, with complex dependencies on the actual condition of the equipment. In this area, advanced Condition Monitoring systems are maturing, bringing a refined vision of the asset situations, with actual facts and data to better support the decisions.

The paper outlines the business benefits obtained by integrating together Asset Management, EMS/DMS systems, and Condition Monitoring systems.