3GPP TSG-SA WG1 Meeting #94e S1-211305

Electronic Meeting, 10 May- 20 May 2021 *(revision of S1-21xxxx)*

**Title: Presentation of Specification/Report to TSG:  
TR 22.867, Version 1.1.0**

**Source: SA1**

**Document for: Approval**

**Abstract of document:**

The objective of this work item is to identify and specify stage 1 5G service requirements for Smart Grid applications and operation. Specifically, this work item shall address communication performance requirements and functional requirements:

- required by typical smart grid applications e.g. distributed energy storage, advanced metering, distributed feeder automation, decentralized and wide area protection, advanced monitoring of power flow, power quality, and smart grid operation state, smart distribution transformer terminal, isolation demand from smart grid, etc.

- due to operational manageability e.g. the ability to configure and monitor the availability of virtual network topology.

- related to IEC/IEEE grid standards,

- related to the grid security aspects, including relevant regulations.

This work item will further add and update the existing normative standards TS 22.104 and TS 22.261.

**Changes since last presentation to <TSG> Meeting #<91e>:**

Update the consolidated potential requirements and KPIs based on agreements made in SA1 #94e meeting.

Update to the Use Case of Protection of DER and grid interconnection.

Update to the Use Case of 5GS support for synchrophasors in wide-area smart grid.

Update to the Use Case of Remote DSO management of connectivity for Smart Energy.

**Outstanding Issues:**

The exposure of RAN information for utility management purposes remains under discussion.

There remain a few editor’s note to clean up and resolve in the specification.

**Contentious Issues:**

The exposure of RAN information for utility management purposes is a contentious issue.