**/SA WG2 Meeting #162S2-2405540**

**April 15 – April 19, 2024, Changsha, China (revision of S2-2404245)**

**Source: vivo**

**Title: Interim evaluation and conclusion for KI3**

**Document for: Approval**

**Agenda Item: 19.4**

**Work Item / Release: FS\_EnergySys / Rel-19**

*Abstract of the contribution: This contribution tries to provide the Interim evaluation and conclusion for KI3.*

# Introduction

This paper is trying to evaluate the solutions captured for KI#3(5GS enhancements for network energy saving and efficiency), provide the conclusions for the KI#3 based on the captured solutions.

# 2 Proposal

It is proposed to capture the following solution in TR 23.700-66.

Start of Changes

Next change

## 8.X Conclusion for Key Issue #3: 5GS enhancements for network energy saving and efficiency

Following interim conclusions for KI#3 are proposed for normative work:

Editor's note: The conclusions need to be further revised.

1. **For Enhancements on NF (re-)selection based on energy related information** :

- NF profile is extended to include the new energy related information allowing an operator to influence NF discovery and selection based on their energy strategy.

- Existing NF profile parameters may be updated to reflect energy related states and support energy aware (re)selection.

Editor's note: It’s FFS if the information in NF profile is abstract and static information or more dynamic energy related information.

- NF (re-)selection is enhanced to consider the energy related information from the NF profiles.

1. **Enhancements on existing operations and procedures for energy saving and energy efficiency**:

- Access management, session management, UP path adjustment may be enhanced taking the energy related information into account.

- For Network slice which is subject to energy control, e.g., determination of accept/reject of requested S-NSSAIs or PDU session, and modification/release of PDU session may consider energy related information.

 - Maximum number of UEs and maximum number of PDU sessions for a network slice maybe adjusted by considering energy related information when it is subject to NSAC

Editor's note: Whether all the NSAC architecture options are applicable to this feature is FFS.

* AMF may retrieve the Green Subscription Indication (GSI) from the UDM during registration and provide it to RAN.

NOTE: The energy related decision will also consider operator’s policy.

Editor’s note: Whether the enhancement on existing operations and procedures can assist saving energy and energy efficiency is FFS.

1. **For NWDAF-Based Energy Analytics for network energy saving and efficiency:**

Editor’s note: Whether the NWDAF can assist saving energy and energy efficiency (e.g. considering the EC of generating analytics) is FFS.

Editor's note: Energy related information required and obtained to support 5GS enhancement for energy saving and energy efficient is dependent on KI#1 conclusions.

End of Changes