**3GPP SA WG2 Meeting #S2-161 draft S2-2403163**

**26 Feb. – 01 March, 2024 Athens, Greece**

Title: draft LS on per UE energy consumption in RAN

Response to:

Release: Rel-19

Work Item: FS\_EnergySys

Source: Vodafone [SA2]

To: RAN,

Cc: SA5, SA1, RAN1, RAN2, RAN3, RAN4

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Attachments:

**1. Overall Description:**

SA2 are studying in the scope of rel-19, based on stage 1 requirements documented in TS 22.261, how to expose information about the amount of network energy consumed by UEs.

In general, operators can already (pre-Rel-19) generate an approximate “energy consumption per UE” by taking the complete energy consumption for the network or a specific node over a period of time; the complete data traffic for the network or the specific node over a period of time; and the amount of data used by the UE (over the specific period of time).

However, it is clear this is only a very rough piece of information that may not be suitable for

the identification of the UEs using a disproportionate amount of network energy for the data they receive. Hence, e.g. network optimisation cannot be done to reduce energy consumption

SA2 is interested in the following issues

- Whether an more accurate measurement of the energy consumption due to RAN node can be identified.

- For which granularity, e.g. UE, PDU session or QoS flow, the above measurement can be performed.

- SA2 are also studying various mechanisms to report the above measurement (e.g. via N2, or via N3 with GTP-U header extensions, or via OAM).

**2. Actions:**

**To RAN**

SA2 kindly asks RAN WGs to provide feedback and information on whether the above topic would be considered in RAN in the scope of Rel-19 and whether feasible solutions would be expected.

**3. Date of Next SA2 Meetings:**

SA2#162 April 15 – 19, 2024 Changsha, CN

SA2#163 May 27 – 31, 2024 Jeju Island, KR