**3GPP TSG SA WG5 Meeting #156 *S5-244501***

**Maastricht, The Netherlands 19 - 23 August 2024**

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| *CR-Form-v12.0* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **32.240** | **CR** | **0498** | **rev** | **1** | **Current version:** | **19.0.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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| ***Title:*** | Rel-19 CR 32.240 Support the energy related information per network slice | | | | | | | | | |
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| ***Source to WG:*** | Huawei, Nokia | | | | | | | | | |
| ***Source to TSG:*** | S5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | EnergySys\_CH | | | | |  | ***Date:*** | | | 2024-08-22 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-19 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP o. | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) Rel-12 (Release 12)* *Rel-13 (Release 13) Rel-14 (Release 14) Rel-15 (Release 15) Rel-16 (Release 16)* | |
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| ***Reason for change:*** | | In TS 22.261, SA1 defined a set of service requirements for energy efficiency as service criteria, which also introduced several requirements for the charging system, e.g. “The 5G system shall provide a mechanism to include Energy related information as part of charging information. ” | | | | | | | | |
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| ***Summary of change:*** | | Add a new clause to describe the Service specific charging for energy efficiency and the references to related middle tier specifications. | | | | | | | | |
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| ***Consequences if not approved:*** | | The charging requirement defined by SA1 in the energy efficiency as service criteria topic does not supported by SA5 charging. | | | | | | | | |
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| ***Clauses affected:*** | | 2, 6.x (new) | | | | | | | | |
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|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **X** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR … CR | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | |  | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | | Revision of S5-244011. | | | | | | | | |

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| **First change** |

# 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non‑specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] - [9] Void.

[10] 3GPP TS 32.250: "Telecommunication management; Charging management; Circuit Switched (CS) domain charging".

[11] 3GPP TS 32.251: "Telecommunication management; Charging management; Packet Switched (PS) domain charging".

[12] Void.

[13] 3GPP TS 32.253: "Telecommunication management; Charging management; Control Plane (CP) data transfer domain charging".

[14] 3GPP TS 32.254: "Telecommunication management; Charging management; Exposure function Northbound Application Program Interfaces (APIs) charging".

[15] 3GPP TS 32.255: "Telecommunication management; Charging management; 5G Data connectivity domain charging; stage 2".

[16] 3GPP TS 32.256: "Telecommunication management; Charging management; 5G connection and mobility domain charging; stage 2".

[17] 3GPP TS 32.257: "Telecommunication management; Charging management; Edge Computing domain charging".

[18] - [19] Void.

[20] 3GPP TS 32.260: "Telecommunication management; Charging management; IP Multimedia Subsystem (IMS) charging".

[21] - [29] Void.

[30] 3GPP TS 32.270: "Telecommunication management; Charging management; Multimedia Messaging Service (MMS) charging".

[31] 3GPP TS 32.271: "Telecommunication management; Charging management; Location Services (LCS) charging".

[32] 3GPP TS 32.272: "Telecommunication management; Charging management; Push-to-talk over Cellular (PoC) charging".

[33] 3GPP TS 32.273: "Telecommunication management; Charging management; Multimedia Broadcast and Multicast Service (MBMS) charging".

[34] 3GPP TS 32.274: "Telecommunication management; Charging management; Short Message Service (SMS) charging".

[35] 3GPP TS 32.275: "Telecommunication management; Charging management; MultiMedia Telephony (MMTel) charging".

[36] 3GPP TS 32.276: "Telecommunication management; Charging management; Voice Call Service Charging".

[37] 3GPP TS 32.277: "Telecommunication management; Charging management; Proximity-based Services (ProSe) Charging".

[38] 3GPP TS 32.278: "Telecommunication management; Charging management; Monitoring Event charging".

[39] 3GPP TS 32.279: "5G Multicast-broadcast Services charging; stage 2".

[40] 3GPP TS 32.280: "Telecommunication management; Charging management; Advice of Charge (AoC) service".

[41] 3GPP TS 32.281: "Telecommunication management; Charging management; Announcement service".

[42] 3GPP TS 32.282: "Charging management; Time-Sensitive Networking (TSN) charging".

[43] - [49] Void.

[50] 3GPP TS 32.299: "Telecommunication management; Charging management; Diameter charging application".

[51] 3GPP TS 32.298: "Telecommunication management; Charging management; Charging Data Record (CDR) parameter description".

[52] 3GPP TS 32.297: "Telecommunication management; Charging management; Charging Data Record (CDR) file format and transfer".

[53] 3GPP TS 32.296: "Telecommunication management; Charging management; Online Charging System (OCS) applications and interfaces".

[54] 3GPP TS 32.295: "Telecommunication management; Charging management; Charging Data Record (CDR) transfer".

[55] Void.

[56] 3GPP TS 32.293: "Telecommunication management; Charging management; Proxy Function".

[57] 3GPP TS 32.290: "Telecommunication management; Charging management; 5G system; Services, operations and procedures of charging using Service Based Interface (SBI)".

[58] 3GPP TS 32.291: "Telecommunication management; Charging management; 5G system; Charging service, stage 3".

[59] - [69] Void.

[70] 3GPP TS 28.201: "Charging management; Network slice performance and analytics charging in the 5G System (5GS); Stage 2".

[71] 3GPP TS 28.202: "Charging management; Network slice management charging in the 5G System (5GS); Stage 2".

[72] 3GPP TS 28.203: "Charging management; Network slice admission control charging in the 5G System (5GS)".

[73] 3GPP TS 28.204: "Charging management; Network slice-specific authentication and authorization charging in the 5G System (5GS); Stage 2".

[74] - [99] Void.

[100] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[101] 3GPP TS 22.115: "Service aspects; Charging and billing".

[102] - [199] Void.

[200] - [206] Void.

[207] 3GPP TS 23.078: "Customized Applications for Mobile network Enhanced Logic (CAMEL); Stage 2".

[208] 3GPP TS 23.203: "Policy and charging control architecture".

[209] 3GPP TS 23.228: "IP Multimedia Subsystem (IMS); Stage 2".

[210] Void.

[211] 3GPP TS 24.229: "Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3".

[212] 3GPP TS 23.272: "Circuit Switched (CS) fallback in Evolved Packet System (EPS); Stage 2".

[213] 3GPP TS 24.002: "GSM - UMTS Public Land Mobile Network (PLMN) access reference configuration".

[214] 3GPP TS 23.502:"Procedures for the 5G System".

[215] 3GPP TS 23.501: "System Architecture for the 5G System; Stage 2".

[216] 3GPP TS 28.533: "Management and orchestration; Architecture framework".

[217] 3GPP TS 23.548: "5G System Enhancements for Edge Computing".

[218] 3GPP TS 23.558: "Architecture for enabling Edge Applications".

[219] 3GPP TS 28.541: " Management and orchestration; 5G Network Resource Model (NRM); Stage 2 and stage 3".

[220] 3GPP TS 28.554: "Management and orchestration; 5G end to end Key Performance Indicators (KPI)".

[221] - [297] Void.

[298] EU Roaming regulation III; "Structural Solutions; High Level Technical Specifications".

[299] EU Roaming regulation III; "Interface & Protocol; Detailed Technical Specifications".

[300] ITU-T Recommendation D.93: "Charging and accounting in the international land mobile telephone service (provided via cellular radio systems)".

[301] - [399] Void.

[400] - [401] Void.

[402] IETF RFC 4006 (2005): "Diameter Credit-Control Application".

[403] - [499] Void.

[500] GSMA PRD BA.27: "Charging Principles".

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| **Next change** |

## 6.x Energy related charging

### 6.x.1 General

The energy related KPI and measurement are defined in TS 28.554 [219] and TS 28.541 [220].

### 6.x.2 Energy related charging per Network Slice

The energy related charging per network slice are specified in TS 28.201 [70] for the network slice performance and analytics charging and TS 28.202 [71] for the network slice management charging.

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| **End of change** |