**3GPP TSG-SA5 Meeting #162 *S5-253924***

Goteborg, Sweden, 25 - 29 August 2025

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| *CR-Form-v12.3* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
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|  |  | **CR** |  | **rev** | **1** | **Current version:** |  |  |
|  | | | | | | | | |
| *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 | **X** | Core Network | **X** |

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| ***Title:*** | Rel-19 CR TS 28.310 Update UC and requirements of Energy Efficiency as a Service Criteria | | | | | | | | | |
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| ***Source to WG:*** | Huawei | | | | | | | | | |
| ***Source to TSG:*** | SA5 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | Energy\_OAM\_Ph3 | | | | |  | ***Date:*** | | | 2025-08-15 |
|  |  | | | |  | |  | | |  |
| ***Category:*** |  |  | | | | | ***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 [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)  Rel-20 (Release 20)* | |
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| ***Reason for change:*** | | It is proposed to update the use case of Energy Efficiency as a Service Criteria and the corresponding requirements:   * Based on the requirements from SA1 TS 22.261 for exposure of energy related information and the conclusion for exposure of carbon and renewable energy related information in TR 28.880, it is proposed to add the exposure aspect of energy related information accordingly. | | | | | | | | |
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| ***Summary of change:*** | | Update the use case EE as a Service Criteria and the corresponding requirements:   * Introduce exposure of energy related information. | | | | | | | | |
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| ***Consequences if not approved:*** | | * The SA1 requirements on information exposure specified in clause 6.15a.5 of TS 22.261 would not be fulfilled. | | | | | | | | |
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| ***Clauses affected:*** | | 5.1.6.1, 5.1.6.2, new 5.1.6.X, 5.2.5.1, new 5.2.5.X | | | | | | | | |
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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:*** | |  | | | | | | | | |

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| **1st Change** |

### 5.1.6 Energy Efficiency as a Service Criteria

#### 5.1.6.1 Description

Energy efficiency as (a) service criteria enables services to be delivered with diverse energy efficiency and energy consumption policies. Energy consumption and efficiency information can be exposed to third parties and energy consumption can be constrained. Other energy related information can include ratio of renewable energy and carbon emission information when available (see clause 6.15a.1 of TS 22.261 [31]). The carbon emission information may include carbon emission.

#### 5.1.6.2 Energy related information

The energy related information includes ratio of renewable energy and carbon emission information (see clause 6.15a.1 and clause 6.15a.5.2 of TS 22.261 [31]) that are not reported by 3GPP defined Network Elements or Network Functions and, being external to 3GPP system, it is expected to be associated by the operator to the Network Elements for utilization within the 3GPP system. The network function Energy Information Function (EIF) (defined in 3GPP TS 23.501 [34]) which can be a consumer of the energy related information from 3GPP management system.

Traceability: REQ-ENERGY\_INFO-FUN-1.

#### 5.1.6.X Exposure of energy related information

Information related to energy consumption and efficiency is not only necessary for network internal optimization, but also will benefit the service adjustment for 3rd party (see clause 6.15a.5.1 of TS 22.261 [31]). In this use case, subject to operator’s policy and agreement with the 3rd party, authorized consumers collect, from the 3GPP management system, various per 5GC NF and per gNB energy related information, e.g. (non-exhaustive list):

· energy consumption and efficiency measurements and/or KPIs;

· carbon and renewable energy related information:

Traceability: REQ-ENERGY\_INFO\_EXPO-FUN-X.

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| **Next change** |

5.2.5 Requirements for Energy Efficiency as a Service Criteria

5.2.5.1 Requirements for Energy related information

**REQ-ENERGY\_INFO-FUN-1:** The 3GPP management system shall be able to allow its authorized consumers to associate energy supply information and energy related information, i.e., carbon emission, renewable energy and/or non-renewable energy related information, related to the Network Elements, to be utilized within the 3GPP system.

5.2.5.X Requirements for exposure of energy related information

**REQ-ENERGY\_INFO\_EXPO-FUN-X:** The 3GPP management system shall have the capability allowing its authorized consumers to request to collect energy related information such as energy consumption and efficiency measurements and/or KPIs, carbon emission, and renewable energy related information per Network Element (i.e. 5GC NF, gNB).

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| **End of change** |