INTERNATIONAL TELECOMMUNICATION UNION

**TELECOMMUNICATION STANDARDIZATION SECTOR**

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**SG5-LS105**

**STUDY GROUP 5**

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**Source:** ITU-T Study Group 5

**Title:** LS/r on Completion of informative work of Green NFV feature (reply to ETSI ISG NFV-(23)000245-LS36)

## LIAISON STATEMENT

**For action to:** –

**For information to:** ETSI ISG NFV, ETSI TC EE, 3GPP SA5, ITU-T SG13

**Approval:** ITU-T Study Group 5 meeting (Geneva, 22 November 2023)

**Deadline:** N/A

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**Abstract:** This document contains the Liaison Statement that will be sent to ETSI ISG NFV as reply to ETSI ISG NFV-(23)000245-LS36.

ITU-T SG5 would like to acknowledge the reception of the liaison ETSI ISG NFV-(23)000245-LS36 on completion of informative work of Green NFV feature by ETSI ISG NFV and the publication of ETSI GR NFV-EVE 021.

ITU-T SG5 is happy to see in the reference list of ETSI GR NFV-EVE 21 that you are already aware of several of our Recommendations. In particular we think the following might be of interest for you going forward:

- ITU-T L.1200:"Direct current power feeding interface up to 400 V at the input to telecommunication and ICT equipment"
- ITU-T L.1204: "Extended architecture of power feeding systems of up to 400 VDC"
- ITU-T L.1210:"Sustainable power-feeding solutions for 5G networks"
- ITU-T L.1220: "Innovative energy storage technology for stationary use - Part 1: Overview of energy storage"
- ITU-T L.1221: "Innovative energy storage technology for stationary use - Part 2: Battery"
- ITU-T L.1315: "Standardization terms and trends in energy efficiency"

– ITU-T L.1316: “Energy efficiency framework”
– ITU-T L.1330: “Energy efficiency measurement and metrics for telecommunication networks”
– ITU-T L.1331: “Assessment of mobile network energy efficiency”
– ITU-T L:1333: “Carbon data intensity for network energy performance monitoring”
– ITU-T L.1350: “Energy efficiency metrics of a base station site”
– ITU-T L.1361: “Measurement method for energy efficiency of network functions virtualization”
– ITU-T L.1362: “Interface for power management in network function virtualization environments - Green abstraction Layer version 2”
– ITU-T L.1380: “Smart energy solution for telecom sites”
– ITU-T L.1381: “Smart energy solutions for data centres”
– ITU-T L.1382: “Smart energy solution for telecommunication rooms”
– ITU-T L.1383: “Smart energy solutions for city and home applications”
– ITU-T L.1390: “Energy saving technologies and best practices for 5G radio access network (RAN) equipment”

In addition, the following work items under development may be of interest for your work:

– ITU-T L.MCI_Gen: “Monitoring and Control Interface for Infrastructure Equipment (Power, Cooling and Building Environment Systems used in Telecommunication Networks) - Generic Interface”
– ITU-T L.MCI_MIM: “Monitoring and Control Interface for Infrastructure Equipment (Power, Cooling and Building Environment Systems used in Telecommunication Networks) - ICT equipment power, energy and environmental parameters monitoring information model”

Furthermore, ITU-T SG5 would like to provide the following recent developments:

– A revised version of the Recommendation ITU-T L.1362 “Power management capabilities of the future energy telecommunication network nodes. Enhanced interface for power management in Network Function Virtualization (NFV) environments” was consented in the ITU-T SG5 meeting (Geneva, 13-22 November 2023). In the revised version, the possibility to host VNF in Container is added.
– In the same SG5 meeting (Geneva, 13-22 November 2023), a new work item was created to revise Recommendation ITU-T L.1331 “Assessment of Mobile Network Energy Efficiency”. The scope covers, for example, the integration of energy consumption metrics for NF composed by Virtual Network Functions (VNFs), and evolutions such as Containerized VNFs. In this work, the information you have provided will be considered, in particular with regard to energy metrics related to VNFs.

ITU-T SG5 looks forward to continue information exchange and potential collaboration with ETSI ISG NFV on these important matters and kindly asks to be informed of further future developments in this respect.

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