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Abstract: This TD contains A.13 justification for proposed draft new Technical Report ITU-T YSTR.Ambient “Analysis on requirements and use cases of ambient power-enabled IoT” based on TD669 discussion results at the Q2/20 meeting, Geneva, 30 January - 10 February 2023.

Please see below.

A.13 justification for proposed draft new Technical Report YSTR.Ambient IoT “Analysis on requirements and use cases of ambient power-enabled IoT”

Question:	2/20	Proposed new ITU-T Technical report	Geneva, 30 Jan - 10 Feb 2023	
Reference and title:	Draft Technical Report ITU-T YSTR.Ambient IoT “Analysis on requirements and use cases of ambient power-enabled IoT”			
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<p>Scope (defines the intent or object of the Technical Report and the aspects covered, thereby indicating the limits of its applicability):</p> <p>This Technical Report specifies analysis on requirements and use cases of ambient power enabled Internet of Things, including:</p> <ul style="list-style-type: none"> – Overview of ambient power enabled Internet of Things – Analysis on requirements of ambient power enabled Internet of Things – Uses cases of ambient power enabled Internet of Things 				
<p>Summary (provides a brief overview of the purpose and contents of the Technical Report, thus permitting readers to judge its usefulness for their work):</p> <p>In IoT systems, a large number of physical terminals may not have the space to hold batteries, or bear the cost of batteries, such scenarios include but not limited to fast-moving consumer goods, logistics packages, product line packaging, warehouse goods inventory, etc. Those scenarios could consist over hundred billion IoT nodes, which conventional IoT devices are impossible to implement in terms of cost, size and power mode.</p> <p>The Ambient-IoT device will embed with energy harvesting module to provide higher and continuous power supply instead of large batteries, thus the Ambient-IoT can support higher transmit power and receive sensitivity, the energy can also support embedded sensor module in Ambient-IoT device to provide sensing, which enable users acquire more information from assets and environment. The advantage of Ambient-IoT device is battery-less, this capability allows Ambient-IoT device reduce the size to tags or labels form. Therefore, the connection density and connection range of IoT will be expanded, the Ambient-IoT not only can provide digital monitoring for high value assets but also provide an advanced digital management method for low-value consumption goods.</p> <p>This Technical Report provides an introduction of the current state of Ambient-IoT in terms of currently available technological solutions, ongoing research, and recent and ongoing standardisation activities in this area. This Technical Report also analyses requirements of ambient power enabled IoT, along with use cases to indicate its market needs.</p>				
<p>Relations to ITU-T Technical reports or to other standards (approved or under development):</p> <p>Y.4000</p>				
<p>Liaisons with other study groups or with other standards bodies:</p> <p>ISO/IEC JTC1/SC31, EPC global, 3GPP SA1</p>				
<p>Supporting members that are committing to contributing actively to the work item:</p> <p>China Mobile, vivo, ZTE</p>				