

RESOLUTION 910 (WRC-23)

[Studies on the possible [frequency bands] for [non-beam and beam] wireless power transmission (WPT) to avoid harmful interference to the radiocommunication services caused by WPT]¹

The World Radiocommunication Conference (Dubai, 2023),

considering

- a) that wireless power transmission (WPT) is defined as the transmission of power from a power source to an electrical load wirelessly using an electromagnetic field, excluding transmission for radiocommunications;
- b) that a wide variety of technologies and applications of WPT are evolving, planned, or have already been partly put on the market;
- c) that such [beam and non-beam] WPT technologies may be useful in a variety of applications, including electric vehicles, Internet of Things (IoT) devices, and wireless charging of mobile or portable devices,

noting

- a) that ITU Radiocommunication Sector (ITU-R) Study Group 1 is studying, based on Question ITU-R 210/1, the technical and operational requirements to ensure that radiocommunication services are protected from harmful interference caused by WPT operations, and what kind of applications and electric apparatus WPT are considered to be;
- b) that ITU-R Recommendations on frequency ranges for WPT (Recommendations ITU-R SM.2110, ITU-R SM.2129, and ITU-R SM.2151) have been approved, and further studies on a variety of WPT applications and technologies are ongoing in ITU-R;
- c) that, according to Nos. **15.12.1** and **15.13.1**, in order to provide protection to radiocommunication services called for in *recognizing c)* administrations should be guided by the latest relevant ITU-R Recommendations;
- d) that ITU-R Recommendations provide guidance to administrations,

recognizing

- a) that WPT is not a defined radio service in the Radio Regulations;
- b) that there are no international regulations to regulate radiation from WPT;

¹ Further discussion is needed on the scope of this agenda item.

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c) that, under Nos. 15.12 and 15.13, administrations shall take all practicable and necessary steps to ensure that the operation of electrical apparatus or installations, including those for WPT, does not cause harmful interference to a radiocommunication service and, in particular, to a radionavigation or any other safety service;

d) that some administrations regard WPT as an industrial, scientific and medical (ISM) application defined by the Radio Regulations, and that they apply their current regulations to the ISM applications and equipment;

e) that some administrations regard WPT equipment as short-range radiocommunication Devices (SRD), and that they apply their current SRD regulations, although SRD is not defined by the Radio Regulations, but it is discussed in some ITU-R Recommendations and Reports;

f) that, in order not to cause harmful interference to the radiocommunication services, some administrations classify certain applications of WPT as a radio service that is not defined in the Radio Regulations,

resolves to invite the ITU Radiocommunication Sector to complete in time for the 2031 world radiocommunication conference

1 technical, operational and impact studies, taking into account the results of already available studies, to consider suitable frequency ranges for harmonized WPT operations;

2 consideration of spectrum matters necessary to ensure the protection of radiocommunication services and the radio astronomy service to which the frequency bands are allocated on a primary and secondary basis, as well as services in the adjacent bands, and those affected by the harmonics,

invites Member States, Sector Members, Academia, and Associates

to participate in the studies by submitting contributions to ITU-R,

invites the 2031 world radiocommunication conference

to consider, based on the results of ITU-R studies, the possible frequency bands for WPT on the basis of avoiding harmful interference to the radiocommunication services caused by WPT.