QUESTION ITU-R 210-3/1[[1]](#footnote-1)\*,[[2]](#footnote-2)\*\*

Wireless power transmission

(1997-2006-2007-2012)

The ITU Radiocommunication Assembly,

considering

*a)* that technology is under development to transfer power efficiently from one location to another using wireless methods;

*b)* that such wireless power transmission (WPT) technologies may be useful in some applications including solar power, airborne platforms, lunar stations and mobile device power charging, etc.;

*c)* that no frequency bands have been specifically associated with WPT technology;

*d)* that the use of WPT technologies may have a significant impact on the operation of radiocommunication services including the radio astronomy service;

*e)* that issues of non-ionizing radiation exposure related to systems employing WPT technologies are dealt with by such organizations as the World Health Organization (WHO) and the International Radiation Protection Association (IRPA)/International Commission on Non‑ionizing Radiation Protection (ICNIRP);

*f)* that WPT technologies utilize various mechanisms, such as transmission via radio frequency beams, inductive and resonant transmission, etc.,

decides that the following information be gathered

1 What applications have been developed for use of WPT technologies?

2What are the technical characteristics of the emission employed in or incidental to applications using WPT technologies?

3What is the WPT’s standardization situation in the world?

decides that the following Questions should be studied

1Under what category of spectrum use should administrations consider WPT: ISM, or other?

2What radio frequency bands are most suitable for WPT?

3What steps are required to ensure that radiocommunication services, including the radio astronomy service, are protected from WPT operations?

further decides

1 that the results of the above studies should be included in a Report or Recommendation,   
as appropriate;

2 that the above studies should be completed by 2023.

Category: S3

1. \* This Question should be brought to the attention of the International Maritime Organization (IMO), the International Civil Aviation Organization (ICAO), the International Electrotechnical Commission (IEC), the International Special Committee on Radio Interference (CISPR), the Inter-Union Commission on Allocation of Frequencies for Radio Astronomy and Space Science (IUCAF) and Radiocommunication Study Group 3. [↑](#footnote-ref-1)
2. \*\* In the years 2017 and 2019, Radiocommunication Study Group 1 extended the completion date of studies for this Question. [↑](#footnote-ref-2)