QUESTION ITU-R 147/6[[1]](#footnote-1)

Energy Aware Broadcasting Systems

(2022)

The ITU Radiocommunication Assembly,

considering

*a)*  that the United Nations has defined 17 sustainable development goals, including "industries, innovation and infrastructure"[[2]](#footnote-2) and “responsible consumption and production”[[3]](#footnote-3);

*b)* that many nations are actively developing climate goals that include the climate impact for all their industries;

*c)* that there is a proliferation of broadcasting technologies, which may have a significant energy footprint;

*d)*  that studies on energy consumption in broadcasting and methods for its mitigation are important, and that current global developments make it urgent for the ITU-R to carry out such studies;

*e)* that broadcasters wish to maintain a high-quality level of content creation, and end-user satisfaction,

recognizing

*a)* that Resolution ITU-R 60-2, *Reduction of energy consumption for environmental protection and mitigating climate change by use of ICT/radiocommunication technologies and systems*, encourages the consideration of environmental issues by Study Groups;

*b)* that Resolution ITU-R 70, *Principles for the future development of broadcasting*, notes that the transition to future broadcasting systems, technologies and applications potentially presents energy saving opportunities;

*c)* that Report ITU-R BT.2385, *Reducing the environmental impact of terrestrial broadcasting systems*, provides information related to improving environmental performance;

*d)* that ISO/IEC 23001-11, *Information Technology – MPEG systems technologies – Part 11: Energy-efficient media consumption (green metadata)*, specifies metadata for energy-efficient decoding, encoding, presentation and selection of media;

*e)* that Recommendation ITU-T L.1410, *Methodology for environmental life cycle assessments of information and communication technology goods, networks and services*, provides information on the assessment of the environmental impact of information and communication technology,

decides that the following Questions should be studied

1 What *direct* impact do the technologies and features used for broadcasting have on energy consumption?

2 What *indirect* impact does the use of external services used for broadcasting have on overall energy consumption?

3 What metrics should be used to quantify and report both the direct and indirect impact on energy consumption?

4 How can broadcasting be made more energy efficient in order to contribute to the pertinent United Nations’ Sustainable Development Goals?

further decides

1 that cooperation with other bodies may be desirable for the development of energy-aware formats, standards and operating practices;

2 that the results of the above studies should be included in one or more Recommendations or/and Reports;

3 that the above studies should be completed by 2027.

Category: S2

1. This Question should be brought to the attention of ITU-T Study Groups 9 and 16, and ITU-D Study Group 2, as well as ISO and IEC. [↑](#footnote-ref-1)
2. <https://www.un.org/sustainabledevelopment/infrastructure-industrialization/>. [↑](#footnote-ref-2)
3. <https://www.un.org/sustainabledevelopment/sustainable-consumption-production/>. [↑](#footnote-ref-3)