

The European Utilities Telecom Council (EUTC) represents European electricity and gas generation, transmission and distribution companies and welcomes the opportunity to comment on the draft RSPG Opinion on WRC-27. The draft Opinion is a very clear and valuable document in the European preparations for WRC-27.

EUTC is proud that its members are an integral component of the battle to decarbonize European Society in a cost-effective, secure and sustainable manner. Electricity networks play a central role in delivering these goals. This is not just a European goal, but a global ambition coordinated through the Conference of the Parties to the United Nations (UN) Framework Convention on Climate Change (COP) in which Europe plays a leading role. This is important in the context of World Radio Conferences as the ITU is the oldest Agency in the UN family.



COP30 (the 30th meeting of the Conference of the Parties) was held in Belém, Brazil from 10-21 November 2025. The Conference was preceded by a two-day World Leaders Climate Action Summit bringing together heads of state and government, ministers, and leaders of international organizations to discuss pressing climate change challenges and commitments.

Addressing world leaders at the opening of the Summit, UN Secretary-General António Guterres made the case that a clean energy revolution has taken hold. “Solar and wind are now the cheapest sources of power – and the fastest growing sources of electricity in history,” he said. “Last year, almost all new power capacity came from renewables. The clean-energy economy is creating jobs and driving development. It is reshaping geopolitics – delivering energy security and price stability. And it is connecting millions to clean and affordable energy for the first time”.

Summary of EUTC’s response to the RSPG Draft Opinion

- Section 2 of the Opinion identifies relevant EU Policies for WRC-27. In EUTC’s opinion, the Community’s Energy Policy is a vital element which should be identified in this section.
- Section 4.18 on WRC-27 Agenda Item 10 – Resolution 235 addresses the possibility of regulatory actions in support in the 470-694 MHz frequency band. In the light of EU Energy Policy promoting renewable energy, efficiency and climate neutrality by 2050, the RSPG should reflect the work being undertaken in ITU WP5A to align frequency bands being used by utilities to support the energy networks to achieve this energy transition. In particular, this Agenda Item opens the way for access to a portion of the spectrum released by the decline in digital terrestrial television to align access to a common frequency band for critical communications on a global basis in this valuable sub-1 GHz spectrum in the longer term.
- Either in a separate section, or as part of section 2.3: Electronic communications and connectivity policy, reference should be made to EU security policies such as NIS2 (2nd Directive on Network and Information Systems) and the Cyber Resilience Act (CBA).

Section 2: Inclusion of EU Energy Policy

EU energy policy aims to ensure secure, sustainable, and affordable energy while accelerating the transition to a low-carbon economy. EU energy policy focuses on energy security, sustainability, and market integration. Its main goals are to provide reliable, affordable, and clean energy for citizens and businesses, reduce greenhouse gas emissions, and increase the share of renewable energy in the energy mix



UHF radio telemetry link monitoring a wind farm

The EU promotes wind, solar, and other renewable sources, which accounted for 24.6% of energy consumption in 2023, with a target of 42.5% by 2030. This transition in energy networks requires major changes and expansion of the monitoring and control of the energy networks if Europe is to maintain reliable, secure and affordable energy. Because of the speed of change in the architecture of the energy infrastructure, the majority of the increase in monitoring and control has to be achieved using radio technology.

Because of the nature of the wireless networks required to support the energy networks, characteristics such as universal geographic area coverage including below ground level, high availability, enhanced resilience and low latency, these services require spectrum below 1 GHz. Harmonizing this spectrum on a European, or even global basis reduces costs of equipment for energy networks ultimately flowing through to European citizens and industry through lower energy prices, whilst simultaneously proving a thriving home market to enable vendors to develop world class utility telecoms products and services.

The overarching framework is the European Green Deal which aims for climate neutrality by 2050, with intermediate targets such as a 55% reduction in greenhouse gas emissions by 2030.

Another related policy is REPowerEU introduced in response to the Russian invasion of Ukraine. This package focuses on energy security, accelerating renewable deployment, and diversifying fossil fuel supply sources, all of which require advanced dedicated utility telecoms networks to succeed.



12% of all power lines in Ukraine have been damaged since 2022

Section 2: Inclusion of reference to NIS2 Directive and CRA

The NIS2 Directive specifically includes Energy Networks in order to boost cyber resilience and security across European critical infrastructure. Its key elements are to enhance security, mandate incident reporting and improve cross-border cooperation. Integral to this activity is enhancement of utilities' operational communication networks. Existing radio networks need to continually expand in order to integrate widely dispersed renewable generation facilities whilst also facilitating more sophisticated demand management strategies and embedded storage. This will require access to additional spectrum below 1 GHz to provide the range and resilience required. Spectrum in the 470-694 MHz band is likely to become available on a timescale commensurate with this growing requirement.

The CRA similarly includes utility communications networks. Enhanced cybersecurity measures will usually attract higher data overheads and quality of service measures. One of the specific features of 6G is expected to be enhanced security by design. In the likely eventuality that utilities will wish to upgrade their networks to 6G in due course, possibly from 2035 onwards, new spectrum will be required as new services must be introduced in parallel with existing services. The 470-694 MHz spectrum will be ideal for this purpose.

The CRA puts great emphasis on maintaining cyber resilience throughout the entire lifecycle of products. Utility networks have much longer lifecycles than consumer products, hence separate networks for critical national infrastructure in 470-694 MHz spectrum will facilitate achievement of this objective.

WRC-27 (World Radio Conference 2027)

EUTC draws RSPG's attention to ITU Report M2533-0 on Utility Radiocommunications¹. Utilities are now focusing on developing a Draft ITU Recommendation on preferred spectrum bands for Utility Radiocommunications to assist administrations looking to harmonise spectrum for these Mission Critical Applications. Spectrum within the band 470-694 MHz would provide an ideal basis on which Europe could lead the world in harmonizing spectrum for critical communications networks.

6G Spectrum Roadmap

EUTC notes the increasing number of private networks deploying 3GPP technologies. This commenced principally in 4G/LTE and has continued in 5G. We anticipate this trend to continue in 6G as vertical sectors become a major source of investment capital for 6G.



Utility interest in 6G can be summarized as prioritizing features of interest to the Mission Critical Communications sector, including:

- Resilience.
- Security.
- Seamless roaming between terrestrial and NTN networks.
- Roaming between public and private 3GPP networks.
- Higher Power User Devices.
- Coordination between telecoms and power networks to enhance the mutual resilience and availability of both networks.
- Sidelink, Direct-to-Device, mesh, gateway and relay modes of operation including access to suitable spectrum to facilitate such operation.

Utilities' primary interests focus on the lower frequency bands being addressed by 5G, 6G, and future wireless broadband networks.



At present, many countries are introducing mission critical networks, especially utility networks, in spectrum around 400 MHz (specifically 410-430 MHz and 450-470 MHz) using 4G/LTE and 5G technology.

From 2035 as 6G matures, utilities will be looking to supplement or replace these networks with 6G technology. However, having only a relatively small (usually 2 x 5 MHz) single frequency band in most cases, migration to 6G cannot be carried out in-band as utility

¹ [Utility radiocommunications operating in the land-mobile service \(itu.int\)](https://www.itu.int/ITU-T/terrestrial/UtilityRadiocommunications/)

networks have to continue operating at full capacity as migration to new technology gets underway. They will need a new frequency band for this process, spectrum in 470-694 MHz having the necessary characteristics to meet this need.

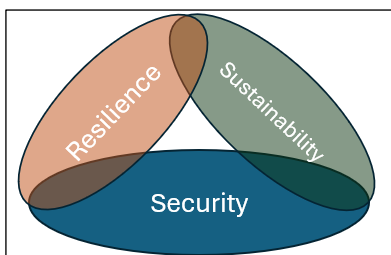
Strategic Spectrum Matters

EUTC's concerns in terms of strategic spectrum matters include three major policy areas where spectrum policy must support other EU objectives, specifically:

- **Energy Transition and Climate Change:** as outlined above and in previous consultations, the energy transition envisages major changes in the sources of energy supply, especially in the volume of intermittent and unpredictable generation and the whole architecture of the energy network. At the same time, electrification of heat and transport require massive growth in the amount of energy which must be supplied. Climate change also places greater strains on the energy networks due to severe weather events affecting both energy supply and demand, together with a greater potential for physical damage to energy network infrastructure.
- **Resilience:** as society becomes more interconnected and reliant on a secure supply of electricity, energy network resilience is vital, but energy network operations are themselves critically dependent on reliable operational telecommunications.
- **Cyber Security:** although physical security is an important element in securing energy networks, the increasingly connected nature of these networks by means of advanced telecommunications creates opportunity for hostile forces to disrupt energy supplies on a potentially a massive scale and undermining energy markets.

Guidance for alternative use of the sub-700 MHz band

EUTC acknowledges the complexity of addressing the challenges regarding use of the band 470-694 MHz after 2030 as demand for digital terrestrial television declines at different rates in different administrations. The priority for RSPG must be to assess potential future demands for spectrum in this band which will differ from past requirements. Safeguarding PMSE access to suitable and sufficient spectrum is an obvious issue, as are future demands from the IMT



community for additional spectrum. However, societal pressures focusing on security, sustainability and resilience are placing a spotlight on the increasing needs of the Mission Critical Sectors – mainly PPDR and utilities – for access to additional sub-1 GHz spectrum to meet their operational needs.

On the basis that spectrum in the band 470-694 MHz is likely to become available for IMT type services from 2035, it would be wise to reserve at least 2 x 10 MHz of this spectrum for mission critical applications.

Even though some European administrations may wish to sustain digital terrestrial television in this spectrum up to 2044 and even beyond that date, a strategy to identify 2 x 10 MHz of spectrum in this band would still support the long term strategy of creating a harmonised global band for utility radiocommunications in alignment with 2050 energy goals.

Amendment of RSPG Recommendation in section 4.18.3

EUTC requests that this Recommendation be amended as shown below to reflect EU Energy Policy:

“The RSPG recommends that the European Commission proposes an EU position to the Council to support the preliminary Agenda item 2.14 for a WRC-31 agenda item in order to study possible regulatory actions, including a review of the allocation of the 614-694 MHz band to the mobile service. This should take due account of the different current and future spectrum needs of EU Member States, with a view to ensuring more efficient and flexible use within the entire 470–694 MHz band across the EU including an allocation of at least 2 x 10 MHz of spectrum on a harmonised European basis for critical communications networks.”

The European Utilities Telecom Council

The European Utilities Telecom Council (EUTC) is the leading European Utilities trade association dedicated to informing its members and influencing policies on how telecommunication solutions and associated challenges can support the future smart infrastructures and the related policy objectives through the use of innovative technologies, processes, business insights and professional people.



Typical utility distribution control room

This is combined with sharing best practices and learning from across the EUTC and the UTC global organization of telecommunication professionals within the field of utilities and other critical infrastructure environments and associated stakeholders.

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