

**Ministerie van Economische Zaken en Klimaat**  
The Netherlands

<https://www.internetconsultatie.nl/pamrverlengbaarheid2022>

Reference: Ontwerpbesluit gedeeltelijke verlengbaarheid PAMR-vergunning 2022

Dear Madam, Sir,

May 12, 2022

We are writing to you on behalf of the 450 MHz Alliance in response to the public consultation on the draft Decision concerning the *Ontwerpbesluit gedeeltelijke verlengbaarheid PAMR-vergunning 2022* that was released for public consultation on April the 8<sup>th</sup> 2022 by the Ministry of Economic Affairs and Climate Policy.

The 450 MHz Alliance is an industry association that represents the interests of stakeholders in CDMA and LTE systems in the frequency range of 380 – 512 MHz, which are outside the focus of the main mobile operators but address important niche use cases in many countries. Our members include traditional wireless industry companies such as wireless license holders, carriers and major equipment manufacturers, as well as companies representing various vertical markets for machine-to-machine communication.

The 450 MHz Alliance strongly believes in the potential of these frequency bands and advocates harmonization and standardization in this field. The members of the 450 MHz Alliance have successfully developed mature ecosystems (standards, chipsets, modules, devices, network equipment and tooling) for the 450 MHz-band. Utility Connect has been actively involved in stimulating this development and standardization of LTE technology in the 450 MHz-band.

We received the draft Decision of the Ministry of Economic Affairs and Climate Policy and studied it with great interest, especially since the 450 MHz Alliance also responded to the public consultation of the *Beleidsvoornemen toekomstige gebruik van de PAMR-band in het 450-470 MHz spectrum* in 2021.

As already highlighted in 2021, Utility Connect in the Netherlands has been a frontrunner in using the 450 MHz-band for critical infrastructures, in particular the energy utilities. In 2021 the 450 MHz Alliance advocated to allocate and assign the whole 450 MHz band (2 x 3 MHz) in the Netherlands to wireless access for utilities (operators of water, road, energy and other critical infrastructures).

Unfortunately, the Ministry seems to continue with its plans to split the current license (2 x 3 MHz) into two smaller portions of 2 x 1,5 MHz each. Considering that (a) in broadband spectrum 3GPP standardized technologies are the most likely to be applied and (b) that 3GPP has defined channel bandwidths of 1.4 MHz, 3 MHz and 5 MHz for this band, such a split will lead to avoidable spectrum

inefficiency. A spectrum license which allows for channel bandwidths of 2 x 5 MHz is preferred since this would be most efficient and economical. In absence of sufficient spectrum availability, smaller allocations are an option, but the proposed decision to split an allocation of 2 x 3 MHz into smaller pieces results in increased inefficient usage of spectrum and less optimal performance of 3GPP standardized technologies.

An additional disadvantage is that fragmented allocations like the proposed two portions of 2 x 1,5 MHz, also might obstruct further technology development in the band and hence an even more efficient use of the available spectrum. The 450 MHz Alliance finds this a missed opportunity and calls upon the Ministry to reconsider this choice.

Additionally, the decision to split the current license and to create a situation with two license holders adjacent to each other, one with a legacy CDMA-network and the other one with unknown technology and services, creates multiple risks for interference. An interference risks arises between the two adjacent license holders with most likely different types of networks as well as interference vis-à-vis the users above and below the current license.

Another important subject is the license duration. Globally we see a trend of increasing validity periods of licenses towards 20 – 30 years. Given the high investments coming with building new networks and thus the need for suitable earn back periods, the 450 MHz Alliance is much in favor of a license for 25 years or more, which also seems appropriate for the 450 MHz band in The Netherlands.

A final point we want to address is that we see the 410 - 430 MHz range becoming more and more popular for broadband communications, not only in Europe (Scandinavia, Ireland) but also in other regions (like most recently in Argentina). With bands 87 and 88 being defined by 3GPP and these bands being included in the ecosystem of many equipment providers (please refer to <https://450alliance.org/wp-content/uploads/2022/04/450Alliance-annual-equipment-report-P-rev-Final.pdf> for an overview), reserving room in this band may for broadband communications could also be an opportunity for the nearby future in The Netherlands.

In conclusion, the 450 MHz Alliance reiterates its preference for continuation and possibly even enlarging the current license to 2 x 5 MHz or somewhat lower if there's no spectrum available for it (for example 2x 4,5 MHz to allow for 1,25 MHz legacy CDMA and 3 MHz LTE including a gap band). Given the necessary investments, such continuation should be for a period of at least 25 years.

The 450 MHz Alliance is at your disposal should you require further explanation regarding any of the points raised through this response. This could be in the form of written text, phone calls or even a workshop with some of our members. Please let us know if you wish to engage in any form of further information exchange.

On behalf of the 450 MHz Alliance, we wish to express our appreciation for this opportunity to share our thoughts and insights with the Ministry of Economic Affairs and Climate Policy.

Yours Sincerely,



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**Consent:** the 450 MHz Alliance has no objections to integral publication of this memo.