

ABSTRACT

Frequency usage needs to be regulated, as frequency is one of the limited resources. Therefore, there is a need for frequency regulation that must be applied to new technologies. Frequency usage is regulated by the frequency spectrum license fee. License fees applicable in Indonesia are divided into two, namely license fees based on Radio Frequency Band Permit (IPFR) and license fees based on Radio Station Permit (ISR). The formulation of license fees is based on the Minister of Communication and Information Technology Regulation No. 17 of 2005 and Government Regulation No. 80 of 2015.

Frequency usage in 5G networks has been divided into low band, middle band, and high band. Limited frequency resources have an impact on operators, because not all operators can use it. So it is necessary to apply the frequency spectrum license fee. The N78 band frequency spectrum which has a frequency range of 3.3 - 3.8 GHz has a balance between coverage and capacity that can provide the perfect environment for 5G connectivity. This frequency spectrum is usually used for Internet of Things (IoT) applications. The capabilities of 5G technology can connect a large number of devices with continuous internet connectivity.

The research method used is sensitivity analysis to determine how effective the calculation results obtained by changing the existing parameters with new variables, namely the new I_b and I_p values. The results of this study provide recommendations regarding the maximum value of I_b that can be used, which is no more than 0.235 resulting in BHP ISR on 100 MHz bandwidth worth Rp113,751,750, this value is obtained by considering cost efficiency and stability of the telecommunications industry.

Keywords: *License Fee, 5G Network, N78 Band, Sensitivity Analysis, Internet of Things*