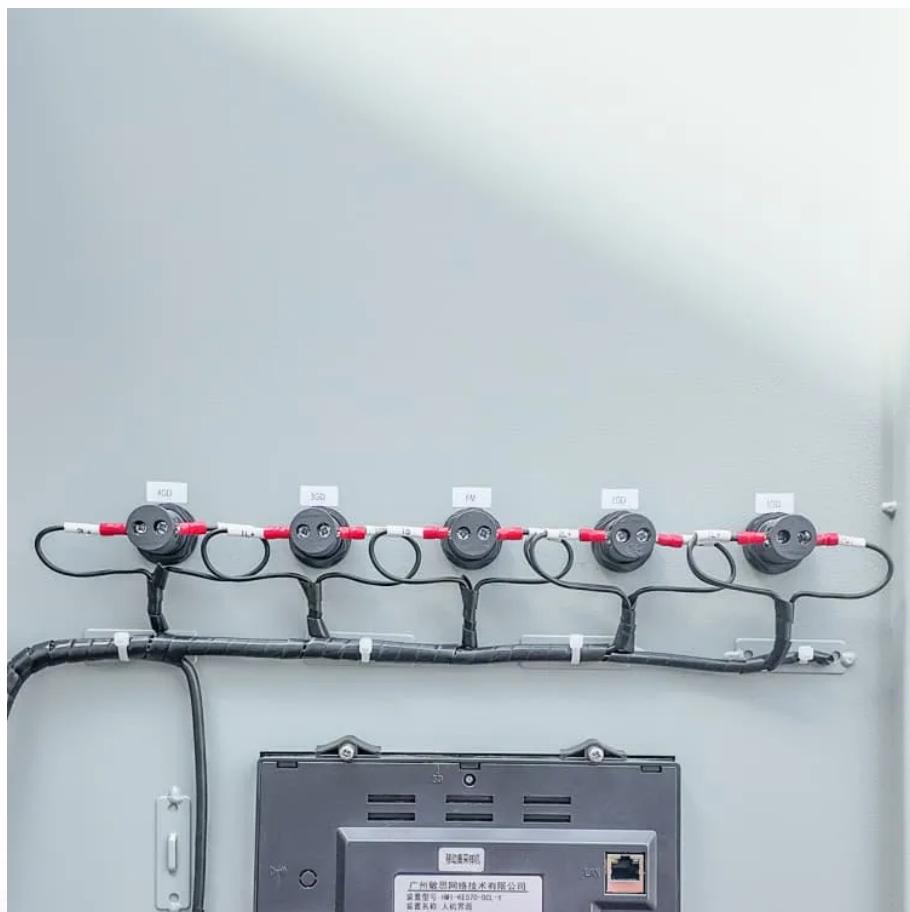




WALMER ENERGY

Belgian electricity industry targets 5g base stations





Overview

Can a 5G ran be deployed in Belgium?

In this work, the whole method is applied to broadband RANs in Belgium for six scenarios of 5G deployment from 2020 to 2025. This paper is organized in four sections.

Where is the 5G network in Belgium?

Network Research Belgium (in the 3600 MHz band) (NRB's 5G user rights were transferred to Proximus in 2024). The 5G network coverage can be viewed here. Overall, the 5G network appears to be better developed in the northern area of Belgium, in particular in Antwerp, Ghent and coastal cities, as well as in the periphery of Brussels.

Why has Belgium slowed down its 5G deployment?

Several regulatory and market challenges might have slowed down its 5G deployment: Delayed 5G Auction: Belgium was among the last countries in Western Europe to allocate 5G spectrum, creating a competitive disadvantage for Brussels in network expansion.

What is the bottom-up model of 4G rans in Belgium?

The bottom-up model of 4G RANs in Belgium is built by analyzing the RAN deployment of one Belgian operator. Empirical power models of 4G BSs are then established using on-site measurements. Next, a prospective power model of 5G BSs is proposed based on technical and practical assumptions.



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Structure of 4G RansEmpirical Power Model of 4G BSSStructure of 5G RansProspective Power Model of 5G BSSTraffic ProfileSince 5G is not widely deployed in Belgium at the time of this study, it is not possible to model the power consumption of 5G BSs using on-site measurements. Instead, prospective 5G power models are proposed using a flexible modeling approach for cellular BSs . This method allows estimating the actual power consumption of a BS Pact by scaling a ref See more on link.springer .sb_doct_txt{color:#4007a2;font-size:11px;line-height:21px;margin-right:3px;vertical-align:super}.b_dark .sb_doct_txt{color:#82c7ff}futuregenerations [PDF]Power consumption evaluation of mobile radioApr 22, 2022 · Therefore, this work aims to estimate the total energy consumption of broadband RANs in Belgium in 2020, and to forecast it by 2025 using six scenarios of 5G deployment. ...

European 5G Observatory

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Europe: 5G base stations by country 2024, Statista

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