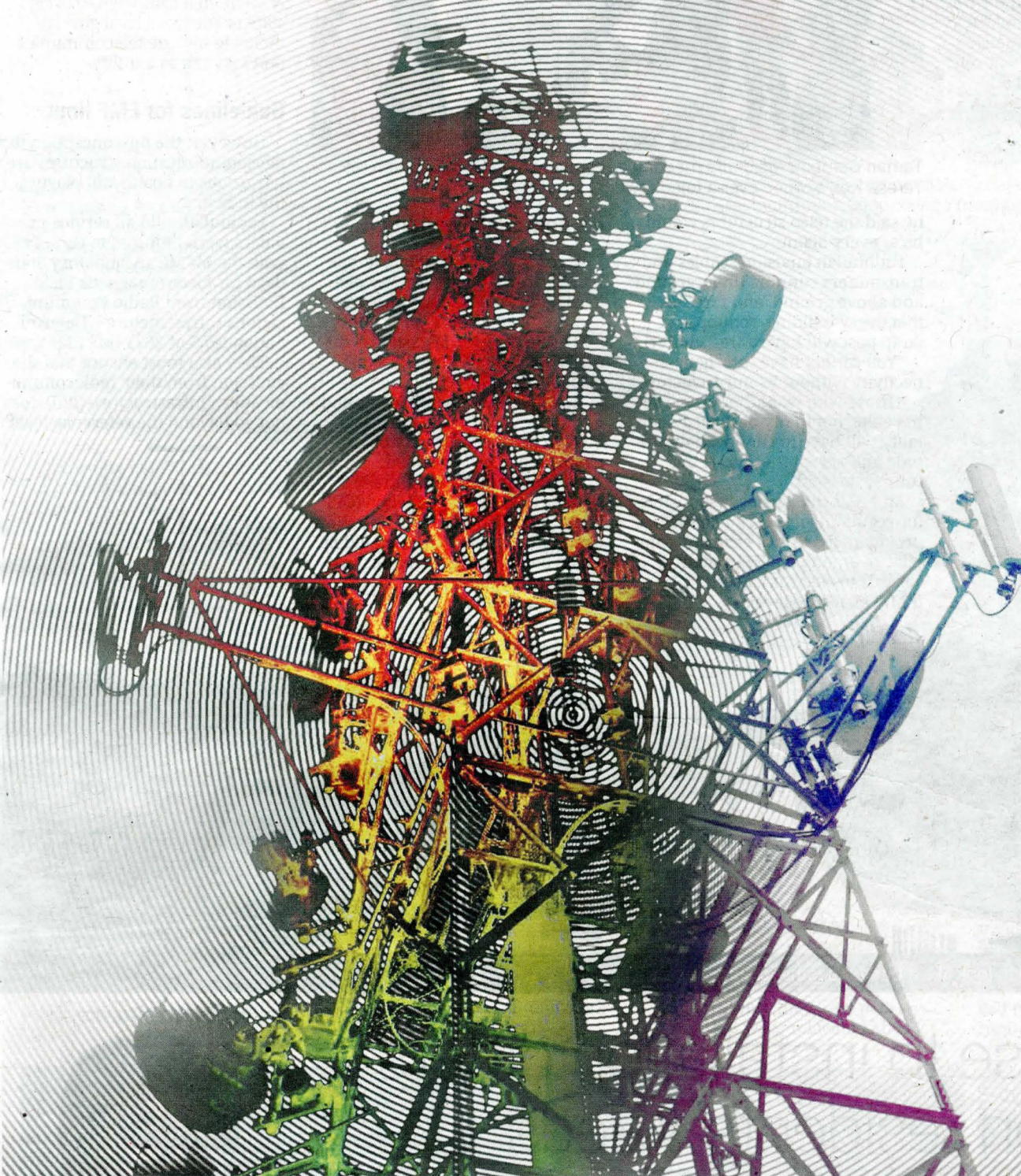




Poles apart

Most elderly folk in Taman Bukit Indah, Kuala Lumpur, are against a move to instal a 5G network tower in the neighbourhood and they cite health concerns as their main reason. The younger residents, however, support the project with hopes that it will provide better connectivity. >2&3

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'Do own research on towers'

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IMAGINE this scenario: at every 500m of your neighbourhood, street lamps will be integrated with telecommunication transmission equipment, mounted with antennae for uninterrupted wireless connections.

These bi-functional lamp posts will be the future of our cities.

"These structures will soon be all around us and the distance between each telco pole will be shorter," said Malaysian Communications and Multimedia Commission (MCMC) chairman Datuk Dr Fadhlullah Suhaimi Abdul Malek.

In fact, with the government rolling out the 5G network and 5G being the new wireless standard,

MCMC: Misconception that telecom structures are hazardous to health still plagues industry



Taman Gembira residents meeting a representative from Seputeh MP Teresa Kok's office over a telco tower.

he said the telco structures would be at every 500m.

Fadhlullah envisions cables and transmitters running underground and above ground, and foresees that every building, rooftop and lamp post will have a transmitter.

"You cannot have Internet connectivity without its infrastructure.

"Those who want the service yet have the 'not in my backyard' mentality will have to change their attitude and accept that this is the future," he said.

MCMC is the agency responsible for regulating network facilities providers (NFP) and ensuring compliance among the NFPs with regards to electromagnetic field (EMF) exposure levels.

It's now a public utility

According to Fadhlullah, it took MCMC over 10 years to convince local authorities to recognise telecommunications as a public utility.

He said it was only last year that the Federal Government recognised it as a public utility.

"Now, besides having water and electricity, new housing projects have to be Internet-ready before people move in," he added.

The Communication Infrastructure Planning Guideline (GPP-I) lays out the framework as to how communication services should be rolled out as a utility and this was approved by the Cabinet last June.

"Previously, people had to wait until more residents moved into a new neighbourhood before they could get Internet access.

"Today, everyone recognises how crucial Internet connectivity has become. It all changed because of Covid-19, with everyone working from home," Fadhlullah pointed out.

He added that MCMC immediately went on a campaign to every state to convince local governments to include telecommunication services as a utility.

Guidelines for EMF limit

However, the misconception that telecommunication structures are hazardous to health still plagues the industry.

Fadhlullah said all service providers were required to comply with the MCMC's Mandatory Standard for Electromagnetic Field Emission from Radio Communications Infrastructure – Determination No.5 of 2021 (MS EMF).

They also must ensure that the emission from their radiocommunications infrastructure (RCI) does not go beyond the reference level



A monopole is designed to look like a tree for aesthetic purposes.

Response to installation differs based on residents' needs

WHEN workers of a telco contractor arrived with a tractor to instal a 5G telecommunication structure in Jalan Nyaman 12, Taman Bukit Indah in Kuala Lumpur recently, they found that unhappy residents had parked their cars at the designated area to prevent the work.

The residents claimed that despite submitting their objections against the structure, no one from the company nor Kuala Lumpur City Hall (DBKL) informed them of the decision to instal the pole.

Residents said they were not objecting to the structure entirely, but wanted it relocated at least 200m away from its current location as they felt that the location of the pole was too close for comfort.

"This is a residential area and the pole is located right next to my wall," said resident C.Y. Yong.

"I know the government is

rolling out 5G (fifth-generation mobile network) and we need it, but there are other locations more suitable for the pole to be installed," he added.

"My health is not good and I feel the pole will worsen my condition," said M.L. Chin, a 75-year-old resident living nearby.

Another resident, M. Ragu, 52, said he was worried about his 92-year-old grandmother whose health could be affected.

However, not everyone in the neighbourhood was against the pole.

While the older generation, mostly retired residents have expressed their rejection of the structure, those of the younger generation want it in their neighbourhood.

Karen Tan, a college lecturer, said she welcomed the installation

of the telecommunication pole as she needed good Internet connection for her online classes.

"I need good connectivity so that there is no disruption for people like me who are working from home," she said.

Another resident, who only wanted to be known as Grace, said she welcomed the new pole as it would help boost coverage for her many wireless devices.

"I have WiFi connection problems for the CCTV camera and television in my kitchen area.

"With the new telecommunication pole, I hope that this will no longer be a problem," she said.

Gowri Siva said once the tower was up, she hoped that there would be less buffering when she watched television shows in the afternoon.

"My daughter and son-in-law



Lan says Seputeh MP Teresa Kok's office is often inundated with public complaints against telecommunication towers.

work from home and they each have their own wireless devices, so good Internet coverage is crucial for us," Gowri added.

Some are not happy having huge telecommunication towers near their homes because they say it depreciates the value of their property.

"We always have a harder time selling properties that face or are close to these towers," said realtor

Telecom tower specifications in residential areas		
Specifications	Tower	Multi-function structure
Development area size	More than 40.4ha	More than 10.1ha
Estimated population	More than 1,000	More than 200
Total housing units	250 housing units (ratio of 4 people per unit)	50 housing units (ratio of 4 people per unit)
Site size	15m x 15m	5m x 5m
Structure height	30m – 45m	15m – 24m
Minimum distance from tower base	20m – residential areas 10m – commercial areas 5m – industrial areas	5m – for residential, commercial and industrial areas

Source: MCMC

TheStar graphics

of exposure.

The reference level is based on the International Commission on Non-Ionising Radiation Protection (ICNIRP) Guidelines for Limiting Exposure to Electromagnetic Fields (100kHz to 300GHz) 2020, which is recognised by the World Health Organisation (WHO).

“The RF-EMF is a type of non-ionising radiation (NIR), which does not have enough energy to cause ionisation.

It is different from Ionising Radiation (IR) such as gamma rays and X-rays.

According to ICNIRP, exposure to Radio Frequency Electromagnetic Field (RF-EMF) at high levels beyond the recommended level can only cause thermal effects or heating of tissue that leads to an increase in the body temperature.

“Based on ICNIRP research, there is no evidence that EMF exposure can cause cancer, electro hypersensitivity, infertility or any other health effects.

“There were no significant effects of short-term radiation exposure emitted from the towers.

“The frequency used by the home microwave oven is even stronger than the RF-EMF.

“It is also lower than the radiation from sunlight.

“In fact, people have been using mobile phones without realising that the frequency emitted from these phones is stronger and yet it hasn’t caused any adverse effect,” he noted.

Push towards own research



Taman Bukit Indah residents parked their cars where a pole was to be placed, to prevent its installation.

M. Shamini.

“Even if the price is low, it is still hard to sell,” she said.

While there may be mixed sentiments over the presence of telecommunication towers and poles in the city, residents reiterate that it is crucial that they are consulted before a decision is made to instal the structures.

There have been instances where after overwhelming complaints, telcos have had to remove



Fadhullah: Research shows no evidence that EMF exposure causes cancer or infertility.

Fadhullah said any claim that the RF-EMF emission level was harmful to health and could cause cancer, should be backed up by data.

“Penang and Negri Sembilan have adopted the approach that any complaints pertaining to telecommunication towers causing cancer must be backed up with proof.

“Prove it and we will take the tower down,” he said.

He opined that the requirement for evidence-based complaints would push people to do their own research instead of listening to just one person.

“In most cases, it is just one person who is complaining.

“Do the research and you will find that your microwave and even your mobile phones emit stronger EMFs than a telecommunication tower,” he added.

the structures.

However, this only happens when telcos breach the guidelines.

Seputeh MP Teresa Kok’s secretary Alice Lan said the MP’s office was often inundated with public complaints regarding telcos and that some had been removed after reports were made to DBKL.

“We have one case in Jalan Selesaria where they relocated the pole. But you have to give a good reason to have it relocated.



A hybrid telecom and lamp post along Jalan Senang Ria, Kuala Lumpur. – FAIHAN GHANI/The Star



A telecommunication tower being installed in Taman Desa, Kuala Lumpur.

As of last February, there were 7,010 telecommunication structures located in Selangor and 2,962 in Kuala Lumpur.

Since 2019, seven telecommunication towers or 0.23% of the total number in the capital city had been dismantled by Kuala Lumpur City Hall (DBKL).

These were the street pole structures that were relocated after

DBKL received complaints from residents.

As for Selangor, no tower has been dismantled.

Fadhullah suggested that telcos invest in making such structures look more pleasing to the eye.

“We recommend a few types of towers: the three-legged, four-legged types, unipole, monopole and rooftop structures.

“Telcos could make the structures more aesthetically pleasing by making them seamlessly blend into their surroundings, for example making a telecommunication tower look like a tree,” he said.

There are a few categories of telecommunication structures, comprising rooftop or street poles, monopole and lattice structures.

Street poles comprise integrated (multi-function) structures such as street lamp posts with advertisement boards, CCTV cameras or speakers.

On who decides a structure’s location, Fadhullah said the local authorities governed the placement of communication structures on land and on buildings.

In Kuala Lumpur, DBKL is the authority in charge and will obtain input and feedback from various agencies such as Civil Aviation Authority of Malaysia (CAAM), Fire and Rescue Department, Tenaga Nasional Bhd, MCMC and the Land Office with regards to land use and acquisition approval.

Separately, all tower operators are also required to have an NFP (Network Facilities Provider) licence under the Communications and Multimedia Act 1998 (CMA 1998).

NFP are the owners and providers of network facilities infrastructure such as cables, towers, satellite earth stations and broadband fibre optic cables.



Taman Bukit Indah residents speaking to a telco representative after they prevented the installation of a telecommunication pole.

residents told us that they were not informed about the matter.

“I called up DBKL for clarification and was informed that there were objections to the pole being installed.

“We will meet with the residents next week to clear the air and hopefully sort this matter out once

and for all,” he said.

Asked if the company would be willing to relocate the pole if required, Fazil said: “Yes, if it is necessary.”

“But you cannot have 5G technology without the infrastructure for it, so I hope they understand that,” he added.