Business Review

Our Environment

We are continuously looking into how we can mitigate our impact on the environment. Key priorities are improving our energy efficiency and reducing greenhouse gas (GHG) emissions across our network. Beyond this, we are also addressing the need to efficiently utilise resources in terms of effective office and mobile e-waste management.

Energy Use and Efficiency

With continuously drive energy efficiency across our Network Services and Data Center by adopting innovative latest technology and energy efficient equipment. This was preliminary carried out at our Technical Operations Centers (TOC) and Base Stations (BTS).

Key initiatives at TOC include:

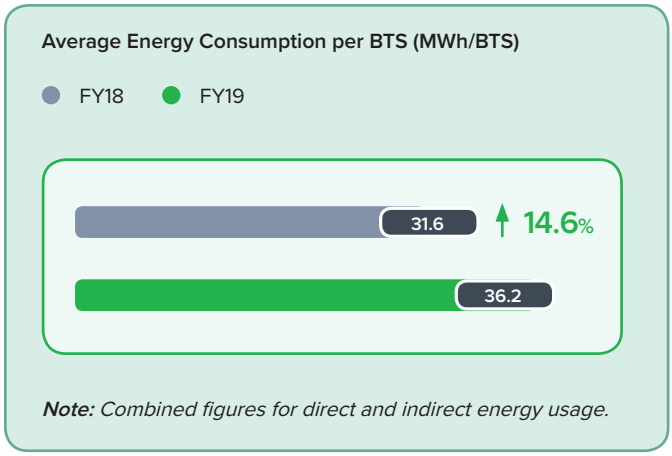
- Optimisation of the Cooling System through design customisations such as introducing cool and hot isles to maximise the cooling efficiency in the Switch Rooms and Data Centers at our TOCs nationwide
- Using the existing high precision air conditioning system as standby units and introducing row-cooling systems to reduce the ambient temperature of our computer rooms with more energy-efficient models
- Installing Low Voltage Energy Optimise Systems (EOS) to modernise the power system and leverage on new technology, as well as to minimise harmonic and energy losses

Key initiatives at BTS include:

- Enhance cooling System at BTS site using DC/Inverter Aircond
- Convert comfort air-conditioners to free cooling unit (FCU) technology.
- Deploying hybrid solutions which utilise a combination of diesel generators and batteries that reduce diesel usage
- Reducing Carrier Power for RAN share sites
- Swapping existing Remote Radio Unit (RRU) single band to Wide Band
- Shutting down one 3G carrier

In 2019, the average energy consumption per base station increased by 14.6 %, compared to 9.1% in 2018. This increase was mainly due to more population base stations site built and network capacity upgrades for core and transmission networks. However, the increment is relatively low compared to high traffic growth in network.

On positive note, key initiatives at both TOC and BTS had contributed total amount savings of RM1.5m.



Note: *Combined figures for direct and indirect energy usage.*

Managing Our GHG Emissions

Our largest source of emission is electricity consumption. This accounts for 95% of our total GHG emissions with our network sites being the largest consumers of electricity. In 2019, our total emissions increased by 23.7% mainly due to Network Capacity Upgrades such as mobile, enterprise services and home traffic.

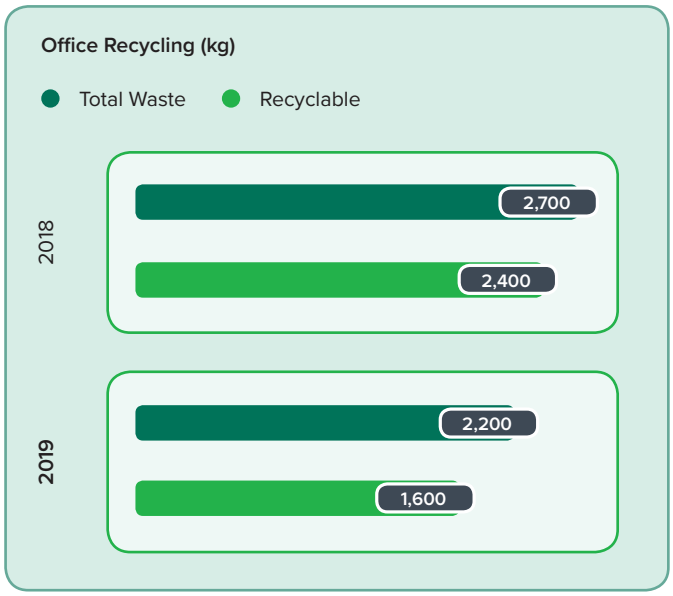
Total Emissions (CO_2 Tonnes)		
Scope 1 - Direct emissions e.g. from fuel and gas usage	**2018**	**2019**
Network & Technology	5,469	**9,097**
Scope 2 - Indirect emissions e.g. from electricity consumption	**2018**	**2019**
Network & Technology	192,593	**236,670**
Building Electricity Consumption	2,294	**2,171**
Subtotal	194,887	**238,841**
Total Emissions (CO_2 tonnes)	200,356	**247,938**

Building Energy Consumption

Whilst decreasing equipment energy consumption directly reduces our impact on the environment, a more subtle but significant contribution comes from our employees. With this in mind, we undertook two specific efforts to further reduce our impact on the environment: The first was the consolidation of workspace by 15% via the relocation of employees from Plaza Sentral to Menara Maxis; while the second was to educate employees of the need to optimise lighting and after-office hour usage of air conditioning at Menara Maxis. These efforts have resulted in a reduction of 9% in power consumption in 2019 compared to the year before.

Green Up at Maxis

We are now in our fourth year of partnership with the NGO, Pertubuhan Kebajikan Masyarakat Melalui Kitar Semula (CRC), in a bid to recycle our office waste. Funds collected from our recycling efforts are donated to charity. Through this effort, we registered an almost 20% reduction in total waste collected in 2019 compared to the year before.



Paper Usage at Maxis

Our transition towards an agile and digital work environment has seen continuous improvement in paper usage. In 2019, we further reduced our paper usage by 4%.

Year	2018	2019
Total (reams)	6,219	**5,996**