

SUSTAINABILITY REPORT

Our Environment

WE CONTINUALLY REVIEW OUR BUSINESS OPERATIONS TO IDENTIFY WAYS TO HELP US MAKE THE MOST EFFECTIVE USE OF LIMITED RESOURCES AND REDUCE IMPACT TO THE ENVIRONMENT

We strive to conduct our business operations efficiently, to minimise our environmental footprint and to make effective use of limited resources. We are committed to adhering to all applicable environmental regulations, and have not been fined or otherwise sanctioned for any environment-related violations in 2014.

Environmental Footprint

The main resource consumed by us in the delivery of our services is energy, generated from both renewable and non-renewable sources.

Our mobile networks, offices and data centre operations used 58,986,153kWh of electrical power in 2014, 7.8% higher than the year before. The increase was due to growth in business requirements including the addition of 80 new base stations to support the increase in mobile voice and data traffic, as well as commencement of our new data centre operations.

We operate three offshore base stations at Pulau Satumu, Pulau Tekong and St. John's Island. As these islands are not connected to Singapore's power grid, on-site diesel generators provide electricity for the base station equipment. In 2014, the three sites used 70,680 litres of diesel fuel, 4.0% higher than 2013, to support higher voice and data traffic.

We maintain a fleet of vehicles, which is used by our field engineers to install new mobile equipment and perform site maintenance or repairs. In 2014, fuel consumption for our diesel vehicle fleet was 21,662 litres, 10.1% higher than the year before, and 13,939 litres for our petrol vehicle fleet, 6.8% lower than the year before.

Our retail operations used an estimated 336,119kWh of electrical power, lower compared to 387,532kWh in 2013. This was mainly driven by the closure of our 313@Somerset retail outlet in October 2014, and temporary renovation for some other outlets.

Water is also used for drinking, cleaning and equipment cooling purposes in our daily operations. Water consumption in 2014 was 57,212m³, 4.1% higher than the year before. The increase in usage was mainly due to the on-going construction of the MiWorld building extension and data centre, which was completed in the third quarter of 2014.

Electricity consumption

	2013 (kWh)	2014 (kWh)
M1 buildings and data centre operations	28,819,931	30,627,609
Mobile networks	25,532,962	28,022,425
Retail outlets ¹	387,532	336,119
Total	54,740,425	58,986,153

¹ Estimated based on utility bills; Our 313@Somerset outlet closed in October 2014

Fuel consumption

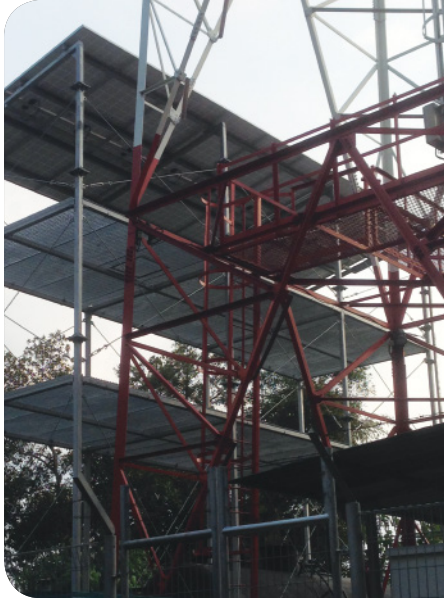
	2013 (in litres)	2014 (in litres)
Diesel (offshore base stations)	67,936	70,680
Diesel (fleet)	19,671	21,663
Petrol (fleet)	14,955	13,940

Water consumption

	2013 (m ³)	2014 (m ³)
Total usage	54,974	57,212

Environmental Conservation

We continually review our business operations to identify ways to help us make the most effective use of limited resources and reduce impact to the environment. These initiatives include:



Singapore's Tallest Solar Photovoltaic Power System

As part of our continuous effort to minimise impact on the environment, we conducted a survey on the feasibility of using solar photovoltaic (PV) power systems at our offshore base stations, to replace diesel fuel with cleaner renewable solar power.

The survey found the Pulau Satumu site suitable, and we successfully installed a solar PV power system in 2012 capable of generating 2,580Wp (Watt-peak). Watt-peak describes the maximum power output under optimal weather conditions.

However, the St. John's Island site was considered unsuitable for a solar PV power system, due to limited deployment space and heavy foliage cover. Undeterred, we explored various alternatives to the traditional "flat" solar PV array layout. Through an innovative, custom-designed solar PV array elevated above the tree line, we were able to deploy a solar PV power system capable of generating 4,500Wp within the limited space.

- **Efficient base station network**

Our base stations network, which enables us to deliver mobile voice and data services to our customers, makes up approximately half of our energy consumption.

We continually review our base station operations over the years to identify ways to reduce energy consumption. In 2011, we completed our 2G base station modernisation programme to replace 1,200 base stations with multi-radio ones that do not require air-conditioning, yielding power savings of 6,876,600kWh a year.

Solar photovoltaic (PV) power systems were installed at our base station sites on Pulau Satumu and St. John's Island to reduce the use of diesel, in 2012 and 2014 respectively. These generated power savings of 5,687kWh last year, and depending on weather conditions, are expected to generate an estimated 10,000kWh in power supplement annually. Although solar PV power systems are not suitable for use at our Pular Tekong site, an overhaul of the base station's generators this October 2015 will enhance their efficiency and reduce diesel usage.

- **Efficient facilities**

To cater to our increased business requirements, we began construction of a new building extension in 2012, next to our MiWorld building in Jurong. This new five-storey annex building, which was completed late last year, is outfitted with environmentally-friendly features such as light-emitting diode (LED) lights and rainwater harvesting tanks and has successfully achieved the Building and Construction Authority's Green Mark Gold certification. The building also utilises NEWater industrial water and recycled condensate water, instead of potable water, for cooling purposes.

Following a review of our lighting requirements, we began a programme to replace 6,600 fluorescent light fittings at our buildings in Jurong and Aljunied, with energy-efficient LED lights. This programme was completed in 2014, and yields an estimated 450,000kWh of power savings a year.

- **Efficient retail operations**

We began revamping our retail outlets in 2012 to enhance productivity and customer experience, and this was completed in late 2014. Through a streamlined transactions process using wireless tablets, we have cut down on the use of printed brochures, receipts, forms and other non-recyclable materials by 20% annually.