ENVIRONMENT

ComfortDelGro Taxi rolled out **1,250** Toyota Prius petrol-electric hybrid taxis in 2017

In China, **over 70%** of the fleet are environmentally friendly Compressed Natural Gas vehicles

In London, Metroline added **165** hybrid double deck vehicles to its fleet in 2017

SBS Transit achieved a **100%** passing rate for the Chassis Dynamometer Smoke Test in 2017

The ComfortDelGro Group is committed to minimising the environmental impact of its operations. In fact, the very nature of a large part of our business is to try to steer communities away from the use of private cars. Indeed, studies have found that public transport, on average, consumes 3.4 times less energy per passenger kilometre than automobiles. This ratio is even more favourable during rush hour.

As we reinforce our commitment to the environment, we have set a short-term target of reducing carbon emissions by 1 to 3% over the next one to three years.

We endeavour to continue to improve the management of our environmental impact by reducing resource usage and minimising waste. We are firmly committed to investing in new, more environmentally friendly vehicles, so as to reduce our emissions footprint.

We effectively manage energy efficiency, air emissions, waste and water consumption. Our environmental policy has been implemented for close to a decade under the supervision of our Green Committee, involving Senior Management and all relevant Business Units/Central Functions. ComfortDelGro compiles the necessary data and reviews its performance regularly, deciding on and implementing improvement measures.

Our longer term environmental goals are:

- To improve our emissions profile per passenger journey and per passenger kilometre;
- To reduce waste and to increase the proportion of waste reused/recycled;
- To improve the environmental management standards across the Group;
- To continue to encourage and promote the use of public transport so as to ensure a modal shift away from car use;
- To continue to support initiatives on research and trial the use of alternative fuels;
- To continuously work at inculcating and strengthening the Green Culture amongst the staff

To achieve this, we will:

- Identify, assess and actively manage all material aspects of our environmental impact;
- Continually improve the environmental performance and minimise impact through resource and energy management and pollution prevention;
- Manage our carbon footprint and energy consumption through the use of technology, process improvements, energy optimisation and other efficiency measures; and
- Adopt plans and measures throughout our operations and infrastructure to mitigate the longer term risks of climate change.

These goals and strategies are clearly outlined and displayed in all our offices to motivate our staff.

Vehicle Emissions Profile

ComfortDelGro has always been among the first adopters of the Government's Green Policies in deploying suitable vehicles for service in support of the environment. All over the world, we are converting our fleets to higher standards, with hybrids and electric vehicles. In all, Green vehicles make up slightly more than half of our over 42,500-strong vehicles worldwide.

For the year ended 31 December 2017, our major bus, taxi and rail businesses in Singapore, Australia and the UK registered carbon emissions of about 1,301,688 metric tonnes[1]. ComfortDelGro targets to reduce the emissions in 2018 by 13,016 tonnes or the equivalent of close to 3,000 passengers cars' emissions in a year[2]. We will be including emissions data from China for the next reporting cycle.

Table 1: Greenhouse Gas emissions

CO_2 equivalent (tonnes)	2017
ComfortDelGro[3]	1,301,688
SBS Transit	528,874
VICOM	2,555

Our London operations are leading the charge in the zero emissions race. From 2018, new ComCab taxis in London must be zero emission capable. There will be no more new diesel taxis and private hire cars, which are licensed for the first time in 2018, must be hybrids or have Euro 6-standard engines. And by 2020, all new private hire cabs must be capable of running solely on battery power.

[1] Corresponding figures for 2016 not available. Comparative data will be provided from 2018 onwards.
[2] A typical passenger vehicle emits about 4.7 metric tons of carbon dioxide per year.
[3] Greenhouse Gas emissions data is from Singapore, including SBS Transit and VICOM, as well as Australia and the UK.

In Singapore, ComfortDelGro Taxi, which is Singapore's largest taxi operator with 13,340 vehicles, targets to convert at least half of its fleet to Euro 6 and above by 2020. In 2017, we have increased the number of Euro 5 Hyundai i-40 taxis from 7,050 to 8,108. The Toyota Prius hybrid taxi which runs on both electricity and petrol, and added to the fleet in 2016, also increased from 201 to 1,250 in 2017.

These environmentally friendly taxis serve alongside the Euro 6 Mercedes Benz E220 BlueTEC LimoCabs. The 150 limousines come with Adblue tanks that help reduce harmful emissions by transforming 90% of the nitrogen oxide into environmentally friendly gases such as water and nitrogen. They also emit only 124g of carbon per kilometre compared to 129g/km for the Euro 5 and 132g/km for the older Euro 4 models.

The carbon emissions from the newer fleet with better emissions, are shown below:

- Euro 4 Hyundai Sonata – 184g/km
- Euro 5 Hyundai i-40 – 159g/km
- Toyota Prius – 97g/km

As at December 2017, our taxi fleet in Singapore comprised 27.5% Euro 4 taxis, 61.2% Euro 5 taxis, 1.8% Euro 6 taxis, and 9.4% hybrid taxis.

From 1 September 2017, petrol vehicles in Singapore need to meet the Euro 6 emission standards, up from Euro 4 previously, whereas from 1 January 2018, diesel vehicles will need to meet the Euro 6 emission standards, up from Euro 5 currently. Together with the changes, the National Environment Agency (NEA) also introduced the Vehicular Emissions Scheme (VES) with effect from 1 January 2018 to replace the current Carbon Emissions-Based Vehicle Scheme (CEVS) for all new cars, taxis and newly imported used cars registered from 1 January 2018 to 31 December 2019.

The VES rebate surcharge for a car or taxi will be determined by its worst-performing pollutant and car buyers will be encouraged to choose models that have lower emissions across all criteria - so as to further improve ambient air quality and, in turn, public health.

In line with this, our listed subsidiary, VICOM has added Euro 6 and JPN 2009 into its scope of emission tests.

It also helps to demonstrate the importance of regular vehicle inspections to road users and our Regulators globally which in turn helps to ensure that vehicles comply with the fuel emission standards.

In China, we invest in dual-fuelled taxis that run on both Compressed Natural Gas (CNG) and petrol. Over 70% of the fleet in China are environmentally friendly CNG vehicles. Nanjing ComfortDelGro Dajian Taxi operates a total of 679 CNG driven taxis while Chengdu ComfortDelGro Taxi operates a total of 488 CNG driven taxis. Nanning Comfort Transportation converted 283 taxis from single energy to dual energy cars in January 2017 and replaced 130 single energy cars with dual energy cars in June 2017. By using dual energy vehicles, it helps drivers manage their fuel costs and also help cut down on harmful emissions.

In a project supported by the Beijing Municipal Government, Beijing Jin Jian Taxi Services replaced the auto three-way catalytic converters in all its taxis to minimise the emissions footprint. The converter will be replaced with new ones every two years as part of preventive maintenance initiative.

As a member of Australia's Roads and Traffic Authority Clean Fleet Programme, ComfortDelGro Corporation Australia (CDC) is committed to providing fleet maintenance that meets regulatory requirements. In 2017, CDC added another 27 Euro 5 and one Euro 6 Environmentally Efficient Vehicles to its fleet, making half of its entire fleet environmentally friendly vehicles.

Our global bus fleet is also at the forefront of Green technology.

In Singapore, 76% of SBS Transit's fleet or 2,462 buses was Euro 5-compliant in 2017, up from 2,288 buses in 2016. The average age of its fleet was six years. SBS Transit, our listed subsidiary, operated a total of 208 bus routes in 2017, up from 202 in 2016, while mileage of the buses was reduced to 191 million km in 2017, from 241 million km in 2016[4].

In London, Metroline added 165 hybrid double deck vehicles in 2017, keeping in line with its philosophy to maintain a young, environmentally friendly fleet. Hybrid buses make up more than 20% of its fleet of 1,900 buses. After launching the world's first all electric, zero emission double deck bus service in London last year, Metroline added another 23 single deck all electric models to serve Route 46. Aside from this, Metroline is targeting to operate its entire fleet on Euro 6 or better by 2020.

We do not just buy Green vehicles, we also work hand in hand with our vehicle manufacturers and fuel suppliers in the field of Green Engineering, providing them with valuable feedback with

[4] Mileage in 2017 dropped although the total number of bus routes operated increased. This is because the number of bus routes in operation are taken as at 31 December while the mileage clocked is based on cummulative total for the year. In the course of 2016, we operated 59 more routes but they were not included in the number of bus services reported at the end of the year given that we were no longer running them then. Their mileage, however, was still recorded while they were in operation during the year.

regard to the engineering performance of prototype vehicles and fuel technologies.

In Australia, CDC in Melbourne conducted a hybrid bus trial in September 2017. The bus is able to yield fuel savings of 30% compared to a regular diesel Volvo B7 bus operating the same routes.

Energy Efficiency

Being in the land transport business, energy efficiency ranks high on our priority list. This is especially important given the amount of time our vehicles spend on the road. Most of our taxis, for example, run practically non-stop as the bulk of them operate on dual shifts.

In all, our operations consumed about 1,470,195 GJ of fuel in 2017.

With advancements in vehicular technology, ComfortDelGro Taxi has been deploying taxis with smaller engine capacities, without compromising on performance. The two-litre Euro 4 Hyundai Sonata taxi has, for instance, been replaced by the 1.7-litre Euro 5 Hyundai i-40 model.

Better fuel efficiency was also achieved through initiatives like EcoDrive in the UK and Scania Optimise in Australia, where drivers are trained on how to maximise fuel efficiency. In the Optimise system, the driving performance of drivers is tracked and weekly reports are provided to show them how they have performed in reducing emissions and fuel consumption.

Table 2: Electricity consumption

Electricity Consumption (kWh)	2016	2017
ComfortDelGro[5]	380,095,012	401,904,408
SBS Transit	346,570,732	366,492,66
VICOM	5,587,718	5,388,303

It is estimated that drivers in the UK reduce average fuel consumption by as much as 15% a year and cut carbon dioxide emissions by more than half a tonne if they adopt the driving patterns as recommended by the trainers. These include proper acceleration and braking techniques, as well as other Green tips such as switching the engine off when stationary, filling up to three-quarter tank and de-cluttering the vehicle to lighten the load.

The bulk of our electricity consumption comes from our train operations. To reduce electricity consumption, energy-efficient lightings such as Light Emitting Diode (LED) lighting and fluorescent light fittings are used within our train stations while natural light is employed at station entrances. The escalators in the new stations are also installed with energy saving features. When there is no one using the escalator, speed is reduced. The air conditioning system has also been installed with carbon dioxide sensors to regulate the outdoor air supply to the stations. As a result, energy consumption is reduced.

Another energy saving feature adopted is the use of solar panels in Downtown Line's (DTL) Gali Batu Depot. These panels are able to generate about 1,150 MWh of energy per year, which is used to offset the power consumption of the depot.

Our Green efforts are extended to the design of our trains too. The new generation trains on the DTL feature a range of environmentally friendly innovations. The use of the efficient regenerative brakes means that every time the train stops, it recovers the kinetic energy and converts it for use in other areas. This also means less wear and tear on the mechanical brakes. The excess energy can be utilised by an accelerating train nearby or channelled back to the power distribution network for other uses. This helps DTL to shave off close to 2% of its energy consumption a year which is enough to power 370 Housing & Development Board five-room flats a year.

Rigorous Maintenance

The saying goes that prevention is better than cure. This is certainly true for vehicles and machinery. Indeed, vehicles that are operating at less than optimal level tend to emit more harmful emissions. This is why we have a rigorous maintenance regime in place.

ComfortDelGro taxis in Singapore are checked once a month, while the buses are checked once every 45 to 60 days. Rental cars, on the other hand, undergo six-monthly preventive maintenance checks. As part of regulatory requirement, vehicles that are at least three years old are inspected at VICOM to ensure they meet safety standards for roadworthiness.

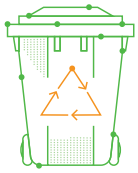
In Vietnam, taxis are also serviced every 5,000km which is about once every month, while in China, companies like Jilin ComfortDelGro Taxi conducts inspection on its taxis to ensure they do not pose health and safety hazards while they are on the roads.

[5] Includes Singapore, Australia, China and the UK.

Preventive maintenance for single deck buses is carried out every 30,000km which is about once every four months. Double deck buses are put on an even tighter schedule because of their usage and weight. It docks at every 15,000km, or about once every eight to 10 weeks.

In between preventive maintenance checks, buses also have to go through safety checks on all safety-related components like the brakes, exhaust and steering.

Under the Land Transport Authority regulations, all buses must go for a half-yearly Roadworthiness Certification conducted by authorised inspection centres. This inspection involves checking the steering, oil leakage, suspension system, corrosion, brakes and smoke emission. The bodywork of buses is also checked for passenger safety and the buses put through a Chassis Dynamometer Smoke Test. SBS Transit achieved a 100% pass rate for 2017.



Waste Management

We have in place measures to manage waste. For example, ComfortDelGro Engineering has an automated Central Oil Management and Dispensing System, where technicians only need to disengage the hose and the system will do the rest. There is no mess, no spillage and no wastage. Better yet, the system eliminates the need for bottles and drums which were previously needed to store these fluids.

All waste from across our Business Units in Singapore is collected by companies licensed by the NEA. This ensures that all hazardous items are responsibly disposed.

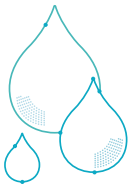
In 2017, our business generated 7,979 tonnes of waste materials (Table 3), which includes batteries, engine oil, tyres, metal, drums, papers and cartons. SBS Transit generated 814 tonnes, and VICOM generated 16 tonnes.

Recycling bins are placed at strategic locations in our offices to encourage staff to recycle. Recycling days are also organised where employees are encouraged to bring paper, plastic and cans from their homes for "deposit" into the bins.

Table 3: Waste disposal[6]

Waste (tonnes)	2016	2017
Non-hazardous waste not recycled	1,935	2,162
Hazardous waste[7]	4,759	4,207
Waste sent for recycling	726	1,610
Total	7,420	7,979

The Group's paper consumption increased from 36,895 reams in 2016 to 38,992 reams in 2017[8], whereas a total of 70,505kg of paper and cartons was collected for recycling in Singapore in 2017 – a decrease from 101,580kg in 2016[9].



Water

The most significant use of water in the Group pertains to the washing of vehicles. About 98% of water consumed by the Group in 2017 is from municipal water supplies. About 1% is from rainwater and less than 1% from groundwater.

Table 4: Water consumption

Water Consumption (m^3)	2016	2017
ComfortDelGro[10]	2,482,239	3,511,731
SBS Transit	817,968	885,886
VICOM	41,132	41,921

Water consumption in Singapore increased from 973,837 litres in 2016 to 1,038,365 litres in 2017.

[6] Includes Singapore, Australia, China and the UK.
[7] 2016 waste figures is restated from 15,844 to 4,759. The restatement is due to data entry error.
[8] Only includes paper consumption in Singapore and UK operations.
[9] Only includes recycling of paper and carton boxes in Singapore.
[10] Includes Singapore, Australia, China and the UK.

Supporting Community Initiatives

On Eco Action Day which falls on 5 June 2017, staff at ComfortDelGro were encouraged to green their workstations by planting free saplings in their unused containers. Close to 1,000 saplings of Fittonia, Philodendron Gold and the money plant were snapped up on that day.

VICOM and SETSCO also supported "Eco Action Day Recycling Campaign" by promoting to reuse, reduce and recycle limited resources. About 4,500 sets of used newspaper were donated to Willing Hearts for their food preparation.

In 2017, CDC in Victoria extended its sustainability profile through a bus-led sustainability project to green the Werribee River Parklands in the West of Melbourne. The event was jointly funded by CDC, Volgren (bus body builders) and CMV (Volvo bus dealer).

Nanjing ComfortDelGro Daijian Taxi continued with its cultivation of 500 trees that were planted in 2012, in order to reduce the environment footprint of each passenger's journey.

Besides organising various Green events throughout the year, ComfortDelGro also actively encourages staff to use water and electricity responsibly. Tips on how to save water, electricity and other resources – not just in the office but at home too – are regularly communicated to staff, either through emails or through notice board posters.

External Recognition

ComfortDelGro first received the Eco Office Label from the Singapore Environment Council (SEC) in December 2009. We were recertified in 2012 and then again from 23 October 2015. Each certification lasts for three years from the date of certification. ComfortDelGro will be going for the Eco Office Label recertification in 2018. VICOM and SETSCO were also recertified the Eco Office Label in 2016.

The Building and Construction Authority (BCA) awarded the DTL the BCA Green Mark Gold^{PLUS} certification in October 2017, the highest tier achieved for a rail to-date, for its environmentally friendly features.

Having met both the technical competence requirements and management system requirements, VICOM successfully recertified itself in accordance to the International Standard ISO/IEC 17025:2005 in July 2017 by the Singapore Accreditation Council (SAC).

In June 2017, SETSCO was awarded the certificate of accreditation by the SAC to ISO/IEC 17021-1:2015 Conformity assessment, a requirement for bodies providing audit and certification of management systems.

With this accreditation, SETSCO is able to offer a wide range of certification services to companies which seek compliances to the requirements of:

- ISO 9001 : Quality Management System
- ISO 14001 : Environmental Management System
- ISO 18001 : Occupational Safety & Health Management System
- ISO 50001 : Energy Management System