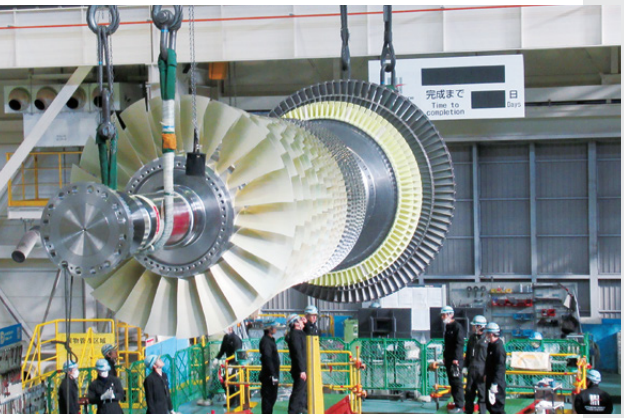
7. Environmental Performance

7.1. Environmental Governance

HK Electric is committed to protecting the environment and supporting sustainable development. We have set up an Environment Committee to ensure that our operations adhere to the Company's Environmental Policy and comply with all applicable laws and regulations.

With continuous improvement in mind, HK Electric's comprehensive environmental and energy management systems follow international standards ISO 14001 and ISO 50001.



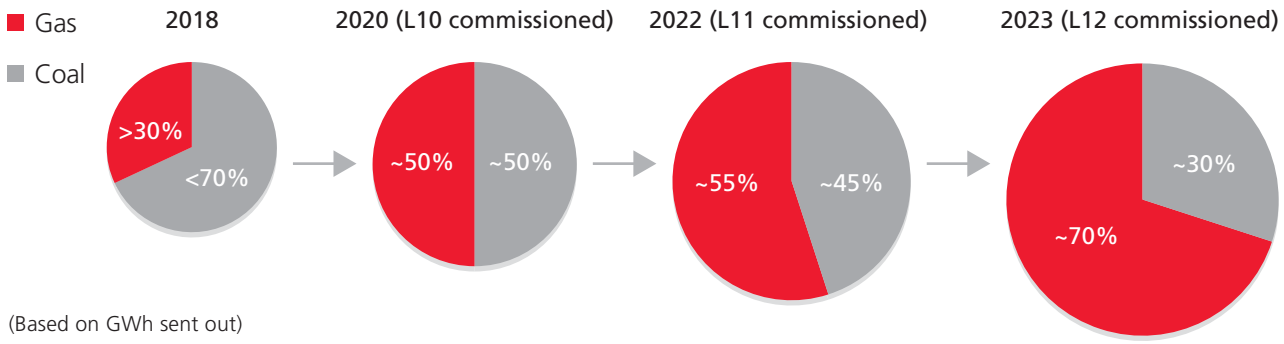
7.2. Cleaner Fuels

Coal and natural gas are practically the exclusive fuels used at LPS. A small amount of oil is used, mainly for starting and flame stabilisation of coal-fired units.

To reduce emissions, we have progressively increased the use of natural gas to generate electricity and reduced coal consumption. Since 2010, gas-fired generation has accounted for more than 30% of our total electricity output.

Currently, the two new gas-fired combined-cycle generating units (L10 and L11) under construction at LPS will feature advanced efficiency-enhancing technology, and are anticipated to produce about 50% fewer carbon emissions than the existing coal-fired units. They will also be equipped with Selective Catalytic Reduction Systems that can reduce emissions of nitrogen oxides by about 90%.

Increase in the Use of Natural Gas in Electricity Generation



(Based on GWh sent out)

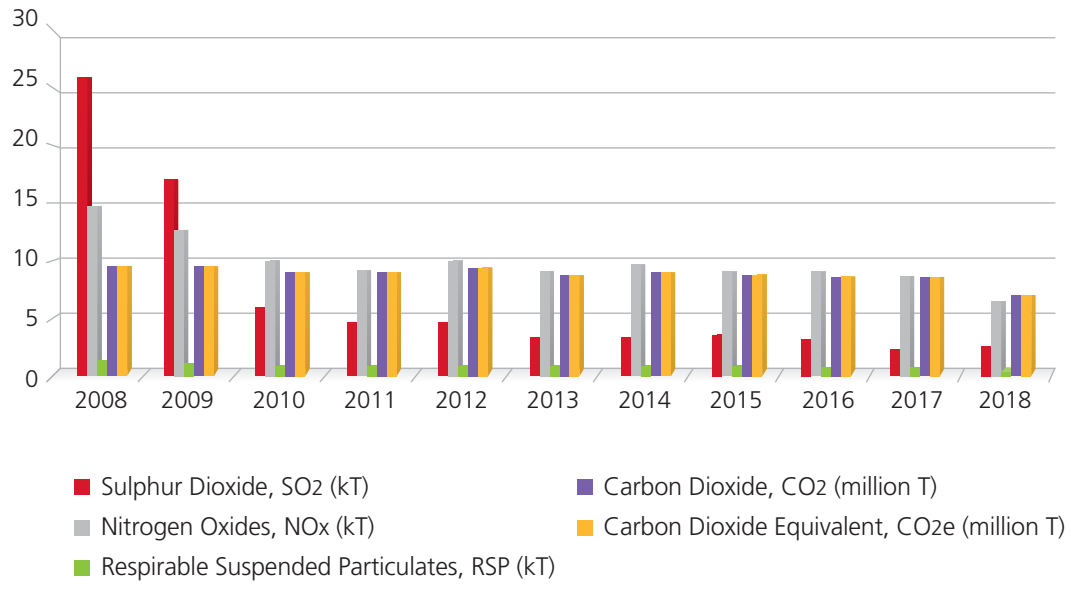
With Government's approval to build another new gas-fired combined-cycle generating unit (L12) that is targeted to be commissioned in 2023, we can increase the total gas-fired generation ratio to around 70%.

Meanwhile, successful modifications made to the coal-fired generation units have enabled us to handle a wider range of coal types. In recent years, low-sulphur coal (sulphur content less than 0.15% and less ash content) has been used to help reduce sulphur dioxide and particulates emissions. In 2018, about 25% of our coal-purchasing portfolio is low-sulphur coal.

7.3. Emissions Reduction

With the use of cleaner fuels and state-of-the-art technology, HK Electric has drastically reduced the emissions from its electricity generation process. Significant reductions in sulphur dioxide, nitrogen oxides and respirable suspended particulates emissions over the 2009-2018 SCA period – by 46-89% in 2018 as compared to 2008 – have been recorded (Figure 6). The carbon emission per unit of electricity sold in 2018 stood at 0.8kg.

Figure 6 – Significant Emissions Reduction (2008-2018)



7.4. 4R and In-house Green Initiatives

As part of our Environmental Policy, we follow "4R" practices – Reduce, Reuse, Recover and Recycle – to minimise the consumption of valuable resources, such as energy, water and paper, as well as to reduce waste. We set energy saving targets for our main office premises and look for energy saving opportunities through carbon and energy audits. At LPS, our "rain and used water collection system" collects more than 100,000m^3 of water every year and helps cut down the amount of raw water consumption and waste water discharge.

We also collect ash and gypsum, which are by-products of our electricity generation process, for industrial use and recycle waste oil as far as possible through licensed contractors.

We work closely with our stakeholders to minimise the impact of our operations on the environment. An example is the provision of an on-shore power supply to contractors' barges at LPS so that less-efficient barge engines can be turned off when operating at berth, reducing both emissions and energy consumption.

We also encourage our customers to switch to e-bills to reduce paper consumption.

To reduce food waste, a booking system for meals is in place at our canteens. We donate surplus food to the needy through Food Angel, an NGO in Hong Kong. For any remaining food waste, we encourage waste separation and use food waste eliminators to minimise the disposal volume.

To enhance employees' awareness of reducing and recycling waste, we implement a "centralised rubbish station" scheme under which rubbish bins at individual workstations are replaced with a centralised rubbish station equipped with recycling bins on each floor. The collected plastic rubbish bins were donated for reuse for organic farming purpose. We also have platforms for information exchange among our employees to promote reuse and recycling of unwanted items.

We also encourage staff and their families to adopt green initiatives through supporting the United Nations World Environment Day. In 2018, more than 600 colleagues took part in various activities in support of this green appeal, including a building energy performance competition and a low carbon recipe competition.

Lamma Power Station Water Consumption / Discharge

	2016	2017	2018
Marine water withdrawal & discharge (million m^3)	2,160	1,926	2,031
Town water consumption (thousand m^3)	2,397	2,375	2,187
Wastewater discharge (thousand m^3)	138	160	148

Ash / Gypsum Collected for Industrial Uses (kT)

	2016	2017	2018
Ash produced	237	229	235
Ash collected for industrial uses	238	235	237
Gypsum produced / collected for industrial uses	66	61	69