Climate Change Mitigation

Responding to a Global Emergency

GRI 302-2 | GRI 302-3 | GRI 302-5 | SASB IF-EU-110

In alignment with the Paris Agreement, the Philippine government has committed to reducing the country's projected baseline GHG emissions of 3,340.3 million tonnes of carbon dioxide equivalent (tCO_2e) between 2020 and 2030 by 75%. To support this national goal and SDG 13: Climate Action, in 2024, One Meralco continued exploring various abatement initiatives and technologies to mitigate our Group-wide emissions, with GHG emissions reduction remaining a top sustainability performance indicator at the corporate level. Our efforts include but are not limited to increasing the share of renewable energy ("RE") in our power generation portfolio, reducing our distribution utilities' system losses, and sourcing more RE in our power supply.

In defining the boundaries of our emissions inventory, we adhere to the GHG Protocol Corporate Accounting and Reporting Standard developed by the World Resources Institute ("WRI") and the World Business Council for Sustainable Development ("WBCSD"). Emissions tracked by One Meralco[32] follow the international convention as follows:

- **Scope 1** – direct emissions from sources owned or controlled by the organization.
- **Scope 2** – indirect emissions from the generation of energy purchased by the organization.
- **Scope 3** – all other indirect upstream and downstream emissions that occur in the value chain of the organization.

In addition to monitoring absolute emissions, One Meralco places great emphasis on measuring and managing emissions intensity and adopting cleaner, more efficient technologies across our businesses.

A. Scope 1: Managing Direct GHG Emissions

GRI 302-1 | GRI 302-4 | GRI 305-1

EQUITY-APPLIED SCOPE 1 EMISSIONS BY SOURCE (in tCO_2e)

	2022	2023	2024
SF_6 leakage	2,478	3,384	4,208
Vehicular gasoline consumption	2,864	2,740	3,251
Vehicular diesel consumption	12,761	14,519	15,959
Coal combustion in power plants	5,083,208	5,307,255	5,490,639
Natural gas combustion in power plants	1,081,710	1,066,488	1,080,536
Diesel combustion in power plants	74,183	49,325	36,360
TOTAL	**6,257,204**	**6,443,711**	**6,630,953**

In 2024, One Meralco's Scope 1 emissions amounted to over 6.6 million tCO_2e. This increase of nearly 3% from 2023 was primarily driven by an increase in the amount of power generated by MGEN's coal-fired plants.

Recognizing that fossil fuels are the main drivers of climate change, Meralco, through our subsidiary MGEN, aims to build at least 1,500 MW of attributable RE generation capacity across multiple technologies by 2030. By the end of the reporting period, our RE portfolio amounted to nearly 325 MW, with a pipeline of over 3,054 MW of RE projects.

For more information about our efforts to expand the share of RE in MGEN's portfolio, please refer to the Energy Transition section under the Power pillar.

[32] Gases included in our GHG inventory include carbon dioxide (CO_2) and sulfur hexafluoride (SF_6).

SWITCHING GEARS ON OUR INSULATING GAS

Meralco is also focused on a less common gas that is critical to our operations yet capable of trapping more heat than any other GHG. Widely used as an insulating gas in high-voltage electrical equipment, SF_6 is over 25,000 times more potent than CO_2 and can stay in the atmosphere for more than 3,000 years. It is essential for grid reliability but must be carefully managed to prevent leaks and minimize its environmental impact.

While SF_6 makes up less than 0.1% of our Scope 1 emissions footprint, we regularly track outflows from our substation equipment and work to recover and recycle this powerful gas. Currently, we monitor gas pressure levels and measure SF_6 cylinder weight before and after refilling activities. We are presently studying the use of an online monitoring system for substation equipment, which will include SF_6 pressure monitoring that can help in monitoring SF_6 gas pressure levels in substation switchgears and breakers.

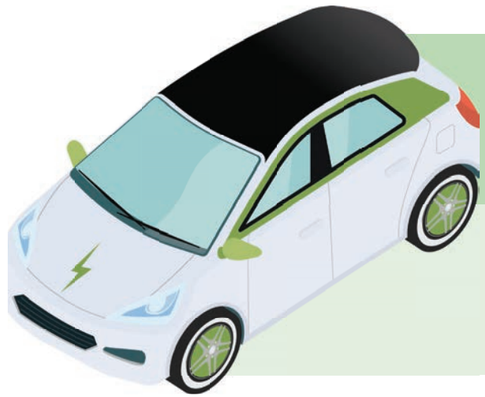
Meralco recorded SF_6 leakages of 167 kg in 2024, up by almost 16% from 144 kg in 2023, due to wear and tear mostly from equipment nearing the end of their asset life. Despite this increase, discharges during the reporting period represented just 0.3% of the total SF_6 installed in all of the Company's substation equipment—well below the limit of 0.5% as prescribed in the Institute of Electrical and Electronics Engineers' Guide for SF6 Gas Handling for High-Voltage (over 1,000 Vac) Equipment.

Acknowledging the impacts of even a relatively small quantity of SF_6 emissions, we will implement a pilot installation of SF_6-free, remote-controlled switchgears starting this year. It is part of our Greening the Network Program, our full transition to SF_6-free line switches expected to be completed by 2028. As of December 31, 2024, 35 units of SF_6-free line switches have already been installed in our network. In addition, starting 2029, we will deploy substation equipment that utilizes natural origin gases (e.g., technical synthetic air, ambient air) with vacuum interrupters. Ultimately, Meralco aspires to have an SF_6-free distribution network by 2060.

35 units
of SF_6-free line switches installed in our network

POWERING OUR DRIVE TO VEHICLE ELECTRIFICATION

Since 2020, we have successfully replaced over 150 internal combustion engine ("ICE")-based vehicles in Meralco's fleet with electric vehicles ("EVs")—representing a 6% electrification rate—supported by a robust charging network with more than 60 fast chargers across the Company's headquarters, Business Centers, and Sector Offices. By replacing a significant portion of our ICE vehicles with zero-tailpipe emission EVs, we are lowering our carbon footprint and achieving substantial fuel savings. This initiative has already resulted in more than PhP 4 million in fuel savings and over 100 tonnes in CO_2 emissions reduction. Ultimately, our goal is to convert more than 700 ICE vehicles of Meralco to EVs and achieve 25% fleet electrification by 2030.



6% fleet electrification rate

25% fleet electrification rate by 2030

B. Scope 2: Regulating Indirect Greenhouse Gas Emissions

GRI 302-2 | GRI 305-2

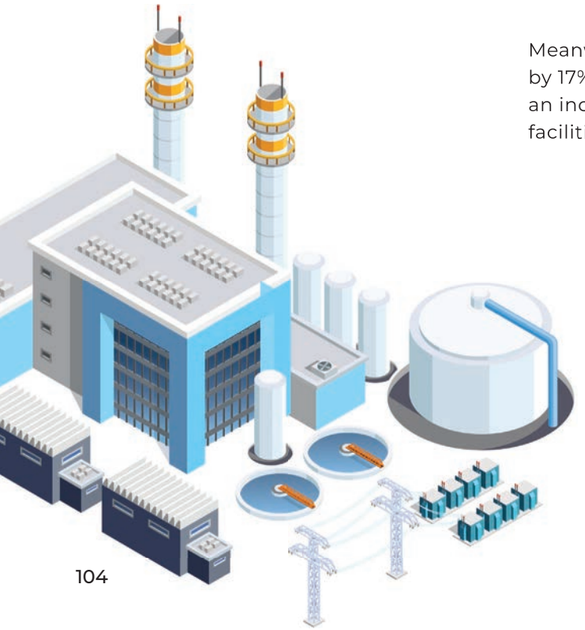
EQUITY-APPLIED SCOPE 2 EMISSIONS BY SOURCE (in tCO_2e)

	2022	2023	2024
System loss	2,087,699	2,214,381	2,350,989
Electricity consumption	63,684	59,076	67,244
TOTAL	**2,151,383**	**2,273,457**	**2,418,233**

One Meralco's Scope 2 emissions increased by 6% from almost 2.3 million tCO_2e in 2023 to over 2.4 million tCO_2e in 2024 due to an increase in the Distribution Utility's system loss volumes, which accounted for 97% of the Group's emissions for this scope.

TOTAL ELECTRICITY CONSUMPTION (in MWh)

	2022	2023	2024
Meralco	61,894	59,890	65,971
Subsidiaries	27,524	23,059	30,993
TOTAL	**89,418**	**82,949**	**96,964**



Meanwhile, our Group-wide electricity consumption increased by 17% from 82,949 MWh in 2023 to 96,964 MWh in 2024 due to an increase in the electricity consumption of MGEN's operating facilities.

DECARBONIZING OUR OPERATIONS THROUGH ENERGY CONSERVATION AND EFFICIENCY

Energy conservation and efficiency are among the most accessible strategies for decarbonizing businesses, offering both financial and environmental benefits. In 2024, we continued driving our Group-wide Resource Conservation and Efficiency Program ("RCEP"), which aims to lower One Meralco's Scope 2 emissions, as well as our operating expenses by managing our own electricity use. At the core of this program are our year-long awareness campaigns and the adoption of energy-efficient technologies (e.g., LED lighting, inverter air-conditioning units) across our facilities. Established in 2020, RCEP covers facilities within and outside the Meralco Operating Center in Pasig City.

In 2024, Meralco generated a total of 45,752 tCO_2e in electricity consumption-related emissions, marking a 10% increase compared to 2023. This increase was primarily driven by the construction of new substations and the resumption of normal operations at the Lopez Building following a two-year retrofitting project.

Beyond the Meralco Operating Center, a total of 48.6 kWp of solar panels in the Company's Antipolo, Marikina, and Roosevelt Business Centers were installed and are expected to be operational in 2025.

Our subsidiaries have also implemented resource conservation and efficiency initiatives, including but not limited to adoption of inverter air-conditioning units, conversion of traditional lighting fixtures to LED, installation of solar panels, and development of smart energy management systems. They also conduct regular inspections and maintenance of fixtures, outlets, and appliances, as well as information campaigns to raise awareness and drive behavioral change among their employee bases. All these efforts form part of our Group-wide RCEP.

C. Scope 3: Controlling Value Chain Emissions

GRI 305-3

EQUITY-APPLIED SCOPE 3 EMISSIONS BY SOURCE (in tCO_2e)

	2022	2023	2024
DU energy sales	33,441,843	36,352,500	37,671,674
Gasoline consumption from rented/contractor-owned vehicles	71	2	47
Diesel consumption from rented/ contractor-owned vehicles	11	5	22
TOTAL	**33,441,925**	**36,352,508**	**37,671,744**

In 2024, our Group-wide Scope 3 emissions amounted to nearly 37.7 million tCO_2e, up from nearly 36.4 million tCO_2e in 2023. This 4% increase was driven by the growth in Meralco's and Clark Electric's primarily fossil fuel-based energy sales.

Our increasing Scope 3 emissions are largely tied to the nation's continued economic growth and Meralco's social responsibility and legal obligation to provide consumers in the Company's franchise area with electricity in the least cost manner, as mandated by Republic Act 9209. While we recognize that the continuous combustion of fossil fuels exacerbates global warming, coal and gas continue to be the most reliable energy sources in the Philippines today and remain as the Company's primary sources of electricity to meet growing demand. Despite this, we, as part of our Long-Term Sustainability Strategy ("LTSS"), are actively expanding the share of RE in our supply portfolio. Through the DU and MPower, we have already contracted a total of 2,279 MW of RE to date, exceeding our initial target of 1,500 MW by the end of the decade, aligned with the Philippine government's Renewable Portfolio Standards.

To drive further reductions in our value chain emissions, we are planning to incorporate GHG emissions as a key criterion in our supplier accreditation and assessment process under the Meralco Supplier Sustainability Scorecard ("MS³") initiative. This ensures that our supply chain partners actively contribute to lowering our overall environmental impact.

BRIGHT SPARKS

Reducing Value Chain Emissions Through *Energy Efficiency & Conservation*

Our subsidiary MSERV champions environmental responsibility by delivering tangible energy-saving solutions to its customers and promoting best practices in smart energy management. The company is both capturing growing demand for sustainability-related services and helping organizations achieve their goals to reduce emissions and cost. At the same time, MSERV's efforts help in reducing Meralco's Scope 3 emissions, as lower energy consumption among customers can result in associated emissions reductions within the value chain.

Recognizing that organizations face challenges in initiating their own sustainability journeys, MSERV also helps businesses start reducing their carbon footprint by providing expert insights and actionable solutions through its energy audits. In 2024, MSERV was tapped for more than 200 energy audit projects across the country, helping its customers identify opportunities to reduce an estimated total of 90,000 tCO_2e in operational emissions.

Through these comprehensive energy assessments, MSERV also enables businesses to reduce their operational costs by optimizing energy use, as well as enhance operational efficiency through retrofits, upgrades, and other innovative solutions such as smart energy monitoring systems.

To complement MSERV's energy efficiency services for commercial and industrial customers, Meralco offers a range of initiatives for residential customers to promote energy conservation and reduce costs. These include Bright Ideas, a customer awareness campaign focused on energy-saving practices; the Appliance Energy Calculator, a smart tool that tracks the energy consumption of household appliances; and publicly accessible cost-to-operate data, which provides details on appliance brands, technical specifications, and their estimated energy usage. Through these initiatives, we empower our customers to make informed choices that help them save on electricity bills.

D. Emissions Intensity: Ensuring Lower-Carbon Energy

GRI 305-4

On top of managing our absolute emissions, we also track our emissions intensity—the amount of GHG emissions (measured in tCO_2e) per unit of output or activity (quantified through GWh in energy sales). This is an important metric for understanding and managing our environmental impact as we support the continued growth of the national economy.

EQUITY-APPLIED SCOPE 1+2 EMISSION INTENSITY (in tCO_2e/GWh)

	2022	2023	2024
Total Scope 1+2 emissions	8,408,587	8,717,168	9,049,187
Energy sales from distribution and generation businesses	61,342	64,253	67,706
Scope 1+2 emission intensity	**137.08**	**135.67**	**133.65**

EQUITY-APPLIED SCOPE 3 EMISSION INTENSITY (in tCO_2e/GWh)

	2022	2023	2024
Total Scope 3 emissions	33,441,925	36,352,508	37,671,744
Energy sales from Meralco and Clark Electric	48,829	51,044	54,144
Scope 3 emission intensity	**684.88**	**712.18**	**695.77**

In 2024, One Meralco's combined Scope 1 and 2 emissions intensity was 134 tCO_2e/GWh, lower than the nearly 136 tCO_2e/GWh recorded in the previous reporting period. Meanwhile, our Group-wide Scope 3 emissions intensity decreased by more than 2% from 712 tCO_2e/GWh in 2023 to 696 tCO_2e/GWh in 2024.

As part of our LTSS, we are implementing substantial measures to progressively reduce our absolute emissions and emissions intensity through and beyond 2030 (versus a business-as-usual scenario) while continuing to expand our customer base and energy sales. Key initiatives include securing additional RE supply contracts and building more RE power plants.

For more information about our efforts to expand the share of RE in our supply mix and power generation portfolio, please refer to the Energy Transition section under the Power pillar.

E. Carbon Offsetting: Restoring Ecosystems to Sequester Emissions

In addition to working to reduce our direct GHG emissions and those within our value chain, we continue to implement a nature-based solution to offset a fraction of our total emissions. Aligned with **SDG 15: Life on Land**, our One for Trees ("OFT") Program—led by the One Meralco Foundation ("OMF") in partnership with several non-governmental organizations and communities—helps sequester emissions while revitalizing local terrestrial ecosystems.

By the end of 2024, Meralco, through OFT, had planted a total of over 2.7 million trees—equivalent to offsetting nearly 59,000 tCO_2e of emissions per year—across different areas in the country. To preserve the country's biodiversity, we only plant species that are indigenous to the Philippines.

For more information about our flagship tree-planting program, please refer to the Biodiversity section.