



Embracing Environmental Responsibility in *Our Business*

Climate Change Mitigation

Responding to a
Global Emergency

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The health of our planet is at a critical juncture.

According to the World Meteorological Organization, 2024 was the warmest year on record, with an average global surface temperature of 1.55 °C above pre-industrial levels, driven by alarming levels of greenhouse gases (“GHGs”) in the atmosphere. The unprecedented speed of this global warming is a key driver of the triple planetary crisis—climate change, pollution, and biodiversity loss—which threatens not only ecosystems but also human well-being. Ambient air pollution alone is responsible for more than 4.2 million premature deaths worldwide annually, while habitat loss and degradation have led to a staggering 73% decline in global wildlife populations since 1970.



Recognizing the critical connection between the health of our planet and the survival of humanity, in 2024, we continued our Group-wide efforts aimed at managing GHG emissions, air pollutants, water consumption, and solid waste that can impact people and ecosystems across One Meralco’s operations and beyond. Amid challenges and uncertainties, we remained steadfast in our commitment to embracing environmental responsibility in our business —in support of **SDG 12: Responsible Consumption and Production**, **SDG 13: Climate Action**, **SDG 14: Life Below Water**, and **SDG 15: Life on Land**.

Performance Highlights



KEY INPUTS (Natural Capital)



KEY OUTCOMES (Natural Capital)



Greening the Network Through Innovation

Guided by **SDG 12: Responsible Consumption and Production**, our approach to environmental stewardship is to adopt best practices in resource use and waste management across our operations. Through our Greening the Network Program, we prioritize the use of materials with a reduced environmental footprint compared to traditional alternatives in our distribution network—ensuring that every choice we make reflects our commitment to sustainability.

PHASING OUT A FOSSIL FUEL-BASED INSULATOR

A significant step in this direction is the adoption of natural ester oil (“NEO”)—which is derived from crops like soybean and corn, and lacks harmful petrochemicals, siloxanes, or halogens. NEO is increasingly being used as an insulating and cooling medium for Meralco’s substation and distribution equipment such as power transformers and distribution transformers (“DTs”).

This transition from mineral oil to NEO—which is 99% biodegradable and recyclable—strengthens Meralco’s aspiration to become a sustainability leader in the energy sector and has brought significant benefits to the Company, including enhanced transformer loading capability, improved fire safety, and reduced waste generation.

In 2024, we installed 14,009 NEO-insulated pole-mounted DTs, 133% higher than the annual deployment target of 10,500 units. By the end of the year, 47,999

NEO-filled DTs had been installed across Meralco’s franchise area, representing over 19% of the total 248,237 DTs installed in the field. A total of 12 automatic voltage regulators insulated with NEO have also been installed and commissioned.

In addition, Meralco installed a NEO-filled power transformer at the San Joaquin Substation, which will be soon subjected to field performance evaluation. Ultimately, Meralco aims to operate 100% of its distribution equipment with readily biodegradable insulating media by 2065.

REDUCING ENVIRONMENTAL IMPACT IN ENERGY STORAGE

Another groundbreaking initiative under our Greening the Network Program is the replacement of valve-regulated lead-acid (“VRLA”) station battery banks—which contain lead and sulfuric acid that are known to harm the environment—at various Meralco substations with lithium iron phosphate (“LFP”) units. Our goal is to phase out 100% of Meralco’s VRLA batteries by 2030, with new substations utilizing LFP batteries starting in 2027. As of December 2024, a total of 15 VRLA battery banks have been replaced with lithium-based units. A total of eight out of Meralco’s 149 substations have already been equipped with LFP battery banks, with more to be deployed in the coming years.

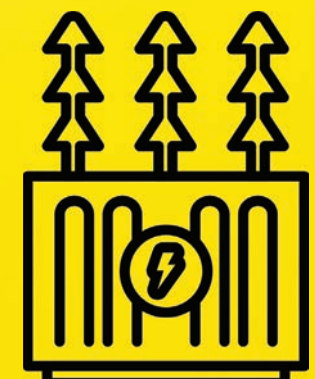
CONCRETIZING ENVIRONMENTAL SUSTAINABILITY THROUGH OUR UTILITY POLES

Wooden utility poles have long been treated with creosote, a fossil-fuel-based compound that extends their lifespan but poses environmental risks. Creosote contains toxic substances that can leach into soil and water, threatening aquatic ecosystems and human health. Recognizing these risks, we have committed to eliminating creosote-treated wood poles from Meralco’s distribution network by 2033 and systematically replacing them with concrete or steel poles.

In 2024, we replaced 7,120 wood poles, effectively eliminating nearly 1.9 million kilograms of creosote-petroleum from our network. A total of 185,149 wood poles remain in service (representing over 19% of Meralco’s total number of poles) and are set to be phased out over the next decade.

14,009
NEO-insulated
pole-mounted
DTs installed
in 2024

47,999
total installed
as of YE 2024
19% of total
DTs



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 (tCO₂e) 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 Meralco³² 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 tCO₂e)

	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 tCO₂e. 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.

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, SF₆ is over 25,000 times more potent than CO₂ 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 SF₆ 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 SF₆ cylinder weight before and after refilling activities. We are presently studying the use of an online monitoring system for substation equipment, which will include SF₆ pressure monitoring that can help in monitoring SF₆ gas pressure levels in substation switchgears and breakers.

Meralco recorded SF₆ 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 SF₆ 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.

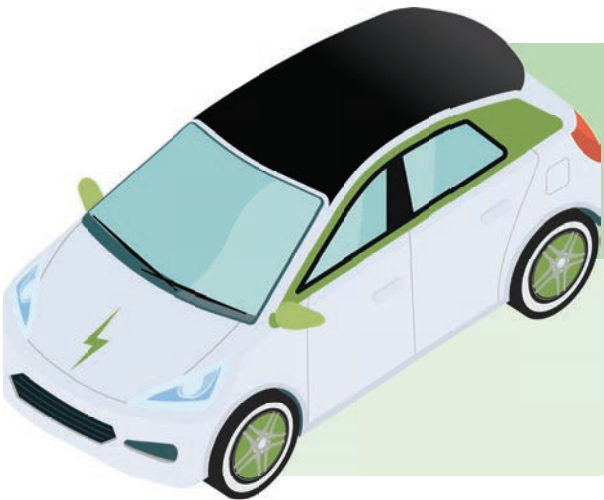
Acknowledging the impacts of even a relatively small quantity of SF₆ emissions, we will implement a pilot installation of SF₆-free, remote-controlled switchgears starting this year. It is part of our Greening the Network Program, our full transition to SF₆-free line switches expected to be completed by 2028. As of December 31, 2024, 35 units of SF₆-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 SF₆-free distribution network by 2060.

35 units
of SF₆-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 CO₂ 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 tCO₂e)

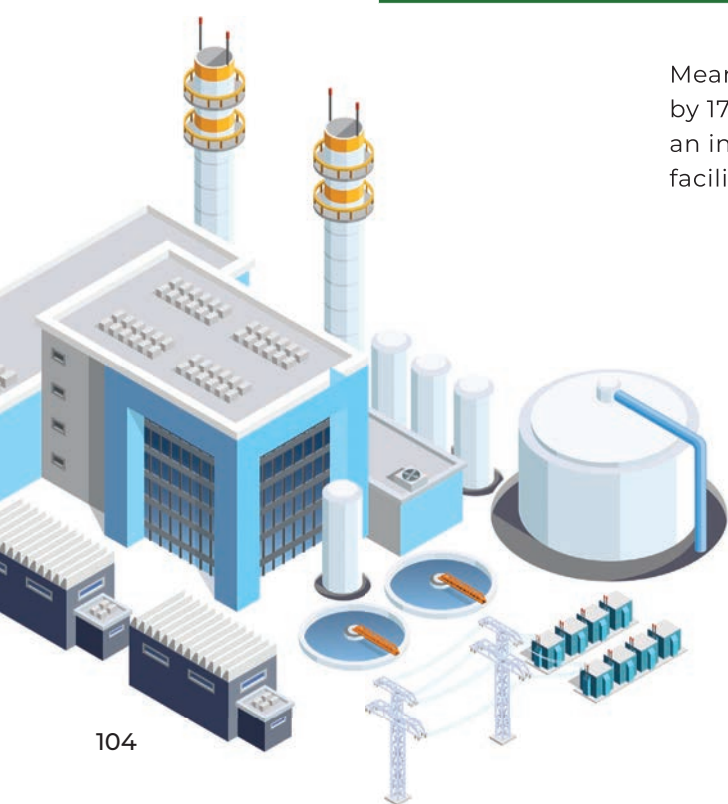
	2022	2023	2024
System loss	2,087,699	2,214,381	2,350,989
Electricity consumption	63,684	59,076	67,244
TOTAL	2,151,383	2,273,457	2,418,233

One Meralco’s Scope 2 emissions increased by 6% from almost 2.3 million tCO₂e in 2023 to over 2.4 million tCO₂e 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 tCO₂e 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 tCO₂e)

	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 tCO₂e, up from nearly 36.4 million tCO₂e 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 tCO₂e 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 tCO₂e) 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 tCO₂e/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 tCO₂e/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 tCO₂e/GWh, lower than the nearly 136 tCO₂e/GWh recorded in the previous reporting period. Meanwhile, our Group-wide Scope 3 emissions intensity decreased by more than 2% from 712 tCO₂e/GWh in 2023 to 696 tCO₂e/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 tCO₂e 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.



Special Section

Climate-Related Disclosures

GRI 2-22 | GRI 201-2 | GRI 302-5

One Meralco continues to build on our Group-wide climate risk management efforts from the previous years, striving to align more closely with emerging disclosure requirements and best practices, including the International Financial Reporting Standards (“IFRS”) S2 Climate-related Disclosures requirements. During the reporting period, we refined our previous climate risk scenario analysis to reflect major developments in our businesses. Through our disclosures, we aim to promote transparency and accountability, ultimately providing our stakeholders with a clearer understanding of the implications associated with potential climate-related risks and opportunities across our value chain.



IFRS Pillar Governance

The Sustainability Committee at Meralco oversees the Company’s sustainability strategy, policies, and programs, including those addressing climate change. The Sustainability Committee functions as an independent body, ensuring focused attention on sustainability issues, including climate change. Chaired by the Chairman of the Board of Directors, the Committee consists of five Directors, including one independent member. Meralco’s Chief Sustainability Officer acts as a non-voting management representative to the Committee.

The Committee’s responsibilities include providing governance oversight, defining roles and responsibilities, and evaluating whether the necessary skills and competencies are available or need to be developed to effectively manage strategies addressing climate-related risks and opportunities. Regular updates are provided to Committee members to keep them informed and support strategic decision-making.

In addition to governance oversight, the Committee plays a crucial role in developing and refining One Meralco’s long-term sustainability strategy (“LTSS”).



IFRS Pillar Strategy

At One Meralco, our approach to identifying and understanding climate-related risks and opportunities is anchored in climate scenario analysis. Over the past few years, we have enhanced this analysis through the development of an internal data-driven model of our business, referred to as our ‘digital twin.’ This scenario analysis has allowed the Group to capture business-critical information about the future impacts of climate change on our power generation and distribution assets, customer office locations and potential financial performance.

It oversees the creation and review of the Group’s sustainability framework, agenda, and policies to ensure alignment with Meralco’s business philosophy and strategic goals. The Committee tracks the Group’s performance against internal targets as well as national, regional, and global sustainability goals. Additionally, it recommends sustainability programs requiring investments of PhP 50 million and above to the Board of Directors for approval, ensuring significant initiatives receive appropriate oversight.

To facilitate effective governance, the Committee convenes periodically as needed to discuss climate-related matters. Regular reports on the Committee’s activities are provided to the Board, and an annual performance evaluation is conducted to assess its effectiveness and set goals for the upcoming year.

The Committee also evaluates ongoing and proposed sustainability programs across the Company’s sustainability pillars: Power, Planet, People, and Prosperity. This comprehensive approach ensures that all aspects of sustainability are considered and integrated into the Company’s operations.

The climate scenario analysis assesses Meralco’s power businesses in the Philippines: the Distribution Utility (“DU”), its various retail electricity suppliers (“RES”), and Meralco Power Generation Corporation (“MGEN”), which includes MGen Renewable Energy, Inc. (“MGreen”), including its subsidiary Terra Solar Philippines, Inc., as well as Global Business Power Corporation (“MThermal”). PacificLight Power Pte. Ltd. in Singapore is not included.



APPROACH TO IDENTIFYING CLIMATE-RELATED RISKS

Our climate scenario analysis assessed both transition and physical risks. We have analyzed three distinct climate change scenarios and their potential implications for One Meralco. These scenarios produce a range of outcomes when evaluating climate risk and are based on the Shared Socioeconomic Pathways (“SSPs”) framework from the Intergovernmental Panel on Climate Change (“IPCC”). The SSPs model possible future societal changes, including shifts in policies, consumer behavior, and investor sentiment.

The three selected scenarios, detailed below, allow for a comparative analysis of both physical risks and transition risks.

Scenario	Mode SSP	Average temperature rise compared to pre-industrial levels by 2100	Description
Business-as-Usual (“BAU”) 	SSP5-8.5	>4 °C	In this scenario, the world takes limited or no actions to limit greenhouse gas (“GHG”) emissions with reduction targets slowed down, with a global emissions increase of 200% by 2100.
Philippines’ Commitment 	SSP 2-4.5	2.5 °C	In this scenario, the world implements stated government policies (e.g., carbon pricing policies to meet the Philippines’ Nationally Determined Contributions, or NDCs, as a party to the Paris Agreement) to lower emissions with no further actions taken and emissions do not reach net zero by 2100.
1.5-Degree Warmer World 	SSP 1-1.9	1.5 °C	This scenario aims to limit global warming to 1.5 °C, in line with the Paris Agreement’s ambition in achieving global net-zero emissions by 2050, through immediate and coordinated action to curb emissions.

Each climate risk has been assessed independently, assuming there are no interdependencies or trade-offs between them. Due to the lag time between GHG emissions and their impact on the climate, the mid-term forecast (i.e., over a 10-year period) for climate physical risk is expected to remain relatively stable. However, as we extend our outlook to longer timeframes, particularly up to 2050, the uncertainty surrounding physical risk increases, leading to greater divergence in the results across various scenarios.

The climate scenario analysis has not taken into account our strategic goals outlined in One Meralco’s LTSS. Nevertheless, the results of the climate risk assessment have played a role in shaping our financial planning, investments, and overall strategy.

CLIMATE RISK ASSESSMENT RESULTS

This report provides a qualitative assessment of each risk and its implications, evaluating their significance to Meralco across various time frames: short-term (up to 5 years), medium-term (up to 10 years), and long-term (extending to mid-century). We are committed to enhancing our analysis and plans to present quantitative findings, using “Earnings Value at Risk” as a financial metric, in our future integrated reports.

Transition Risks Assessed and their Potential Impacts to One Meralco

Risk, Materiality and Time Horizon	Potential impact on One Meralco	BAU Scenario	Philippines’ Commitment Scenario	1.5-Degree Warmer World Scenario
Carbon Policy Risk <i>Material risk for MGEN in the short- and medium- terms.</i> 	A price or tax on carbon could increase the relative cost of electricity generated from fossil fuel-fired power plants. Such increases could reduce demand for electricity sourced from fossil fuels that MGEN generates and the DU distributes. This may impact Meralco’s decisions in owning, operating, or selling fossil fuel-fired power generation assets.	Beyond the BAU scenario, there could be increasingly higher costs of carbon tax liability and overheads.	In the BAU scenario, there is no carbon tax liability because carbon pricing or any other mechanism is not implemented. The Philippines’ Commitment scenario introduces the necessary carbon pricing to align with the Philippines’ NDCs. The most significant costs arise in the scenario targeting a limit on global warming to 1.5 °C, where carbon prices could soar to PhP 3,000/tCO ₂ e.	
Technology Risk <i>Material risk for MGEN in the short- and medium-terms.</i> 	As policy and/or market forces push power companies to phase out fossil fuels, MGEN may need to upgrade existing assets that rely on fossil fuels and/or use energy inefficiently. If carbon-intensive assets are devalued, MGEN may incur impairment and asset write-off costs. In addition, MGEN could incur major capital investment and operational costs to research, develop, scale, and deploy lower-carbon technologies to replace fossil fuel-based assets.		High capital investment and operational costs across scenarios Overall, high capital investment and operational costs are prevalent across all scenarios. Technology risk is particularly pronounced for fossil fuel-based power generation assets, especially in the scenario aimed at limiting global warming to 1.5°C, where significant emissions reductions are required. This would, in turn, necessitate the early decommissioning of emission-intensive power generation facilities.	
Investor Market Risk <i>Material risk for MGEN in the short- and medium-terms.</i> 	Amid a trend of investor divestment from assets that are exposed to climate-related risk factors, MGEN, a carbon-intensive business, could face increasing scrutiny and challenges to attract investment. This sentiment could drive a higher cost of capital.		Increasingly higher cost of debt and lower market value of equity As a power generation business that relies heavily on fossil fuels, MGEN is poised to face increasingly higher costs of debt and a lower market value of equity across all scenarios, assuming no changes are made to its business model. This impact will be most pronounced in a 1.5-Degree Warmer World, where many financial institutions could exit the fossil fuel sector from their investment portfolios to align with net-zero ambitions. Consequently, equity and debt financing will become more expensive, potentially making it challenging for MGEN to pursue mergers and acquisitions or attract investments.	

Risk, Materiality and Time Horizon	Potential impact on One Meralco	BAU Scenario	Philippines' Commitment Scenario	1.5-Degree Warmer World Scenario
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Liability Risk

May not be material for One Meralco in the short- or medium-terms, given the legislative environment in the Philippines and the historical trajectories of climate-related cases in the region.



One Meralco could face lawsuits for causing harm related to climate change, with greenwashing claims and public nuisance litigation and lawsuits against directors and officers.

Increasingly higher legal settlement and compensation costs

Legal settlement and compensation costs are expected to rise, particularly under the BAU and 1.5 °C scenarios. In the high-emissions BAU scenario, the number of public nuisance and pollution cases is anticipated to increase rapidly. Meanwhile, in the low-carbon to 1.5 °C scenario, there will likely be a rise in greenwashing claims and lawsuits against directors and officers.

Consumer Market Risk

Material for the DU and RES in the short- and medium-term.



Consumer preference for electricity generated from lower-carbon emission technologies could impact revenue. Electricity provided to residential customers is the largest contribution to Meralco's revenue. However, commercial and industrial customers may prefer to purchase retail electricity services from other licensed or authorized suppliers. End-users with a monthly average peak demand of 100 kW for the past 12 months can sign up for the Department of Energy's Green Energy Option Program.

Increasingly higher impact on revenue

The impact on revenue is expected to increase as end-users increasingly prefer to purchase energy from cleaner sources rather than traditional ones. This risk is heightened under more ambitious climate pathways, as a larger share of the population and corporations adopt sustainable practices that align with a warming limit to 1.5°C trajectory. The modelling acknowledges that the impact is nuanced, depending on the sources of energy; coal and diesel are viewed more negatively compared to natural gas, while renewables are perceived positively.

Reputational Risk

Material for MGEN in the short-and medium-term.



Negative stakeholder views on One Meralco's sustainability strategy and performance may adversely impact revenue.

Increasingly higher impact on revenue

A growing impact on revenue is anticipated across all scenarios due to a decline in demand for fossil fuel-generated electricity, particularly in a 1.5 °C scenario, where global concerns about meeting emission reduction targets are expected to shift public opinion against major corporations that have historically engaged in carbon-intensive practices.

Physical Risks Assessed and their Potential Impacts to One Meralco

Physical Risk (DU and RES)

Revenue Impact: Across all scenarios and by mid-century, revenue may be impacted due to the increasing risk of extreme droughts/water stress and typhoons. These climate perils could impact revenue, as Meralco's headquarters, Business Centers, and Sector Offices could close operations and customer payments could be disrupted.

Asset Damage: Across all scenarios and by mid-century, Meralco's distribution and other network assets could be damaged by the increasing risk of typhoons. By integrating these insights, we are better equipped to assess the materiality of individual risks within our defined time horizons. This thorough understanding informs our strategic decision-making and enhances our resilience in the face of climate-related challenges, ultimately supporting our commitment to sustainable growth and value creation for our stakeholders.

Physical Risk (MGEN)

Revenue Impact: Across all scenarios and by mid-century, revenue may be impacted due to the increasing risk of extreme droughts/water stress and heatwaves. These climate perils could impact business operations and reduce the energy production capacity of MGEN's power plants.

Asset Damage: Across all scenarios and by mid-century, future typhoons could cause the most damage to MGEN's power plants. Coastal and riverine flooding could also cause some asset damage.

CLIMATE RESILIENCE

We are committed to enhancing our organization's climate resilience in response to the increasing risks posed by climate change. Our Group-wide LTSS includes our response to the effects identified in the climate-related scenario analysis, with the end goal of becoming coal-free by 2050.

For more information about our LTSS, as well as details of our investment in addressing climate-related risks and pursuit of climate-related opportunities, please refer to Our Outlook & Strategy.



CLIMATE OPPORTUNITIES

In light of the impacts the climate scenario analysis and risk assessment have illustrated, One Meralco is considering the following climate opportunities:

Products/Services: Decarbonization of Existing Power Generation Assets

We are investing in gradually transitioning away from coal as a source of energy. Meralco plans to end energy sourcing from coal upon the expiry of our Power Supply Agreements (“PSAs”). This strategic move reflects our Group’s commitment to enabling decarbonization across sectors, meet customer demand for cleaner alternatives, and aid in meeting the Philippines’ climate goals. Before the expiry of PSAs of coal power plants, MGEN is exploring carbon capture, utilization, and storage (“CCUS”) and co-firing with coal to reduce emissions from current operations.

For future investments, MGEN is focused on developing dispatchable low-carbon power solutions. This includes exploring options such as combined cycle gas turbines (“CCGT”) combined with green hydrogen and advanced small modular reactors (“SMRs”) for baseload power generation. These technologies represent a significant opportunity for MGEN to provide reliable and cleaner energy while minimizing environmental impact.

Further information about our decarbonization levers is detailed in the Building the Future of Energy by 2050 section under Our Outlook & Strategy.

Products/Services and Resource Efficiency: Grid Hardening, Grid Modernization and Smart Grid Initiatives

To support the electrification of transportation and other sectors, Meralco is exploring significant investments in the hardening and modernization of its distribution network. These potential investments are essential not only for meeting the Philippines' climate goals but also for enhancing the resilience and flexibility of the energy system. Modernization could also enable an interconnected grid capable of accommodating high shares of variable renewable energy, which is crucial for ensuring a reliable energy supply.

Meralco is exploring demand-side management strategies to optimize energy consumption and reduce peak demand. By actively managing how and when energy is used, the Company can enhance grid stability and minimize the need for additional generation capacity.

Further information is detailed in the Innovation section under Prosperity.



IFRS Pillar
Risk Management

Meralco’s Enterprise-Wide Risk Management Office (“EWRMO”) and the Sustainability Office (“SO”) work closely to facilitate an integrated, organization-wide risk management process. This allows the entire Group to identify and evaluate climate-related risks across different business units and functions. The EWRMO leads a formal risk assessment process twice a year, which starts with the Risk Champion from each business unit and subsidiary, moving to the risk owner, and finally involving Meralco’s senior management and the Board-level Risk Management Committee.

To complement the formal risk management process, the Sustainability Strategy and Reporting unit under the SO monitors trends and developments in the sustainability space to ensure that climate-related risks are identified and assessed appropriately and in a timely manner while also being considered in One Meralco’s LTSS as necessary. Improvements to the LTSS are carried out in collaboration with various business units, such as MGEN, MPower, Networks, and the Regulatory Management Office. Lastly, as outlined in the Strategy section, Meralco has conducted scenario analysis exercises to better identify and assess climate-related risks and opportunities.



IFRS Pillar
Metrics and Targets

One Meralco uses the following key climate-related metrics, which are all monitored monthly, quarterly, and annually by the Group:

- **For Scope 1:**
 - Emissions from fossil fuel combustion (coal, diesel, natural gas) by power plants
 - Emissions from gasoline and diesel combustion by company-owned vehicles
 - Emissions from SF₆-insulated distribution network equipment
- **For Scope 2:**
 - Emissions from the generation of electricity purchased from the grid and used to power company-owned facilities
 - Emissions from the generation of electricity lost during the delivery of electricity to customers (i.e., system loss)
- **For Scope 3:**
 - Category 11: Use of Sold Products - Emissions from the generation of electricity procured by Meralco and Clark Electric from power generators then sold to customers
 - Category 3: Fuel- and energy-related activities - Emissions from gasoline and diesel combustion by rented/contractor-owned vehicles

In defining the boundaries of our emissions inventory, One Meralco abides by the GHG Protocol, a universally recognized standard developed by the World Resources Institute (“WRI”) and the World Business Council for Sustainable Development (“WBCSD”) for measuring and monitoring GHG emissions.

We have established the following key climate targets as part of our LTSS: 14% reduction in Group-wide overall emissions by 2030 vs. business as usual (“BAU”) 9% reduction in Group-wide Scope 1 emissions by 2030 vs. BAU

Moving forward, we will adopt metrics that will provide the Group a clearer understanding of the climate-related risks and opportunities we need to manage and capture, respectively. For climate-related risks, these may include the number and financial value of One Meralco’s assets at risk of damage from climate hazards such as typhoons. Meanwhile, possible metrics for climate-related opportunities may include the revenues generated by the Group from capitalizing on these opportunities.

Further information is detailed in the Climate Change Mitigation section.



Air Quality

Maintaining Breathable Air

GRI 305-6 | GRI 305-7 | SASB IF-EU-120

Globally, electric utilities are a major source of air pollution with significant implications for both the environment and human health. At One Meralco, we strive to manage our impacts, and minimize the risk of regulatory action, by maintaining our non-GHG emissions within the acceptable thresholds set by the Philippine Department of Environment and Natural Resources (“DENR”), aligned with the Philippine Clean Air Act.



As a result of our efforts, MGEN’s thermal facilities, which are ISO 14001:2015-certified, have met the standards for non-GHG air pollutants set by the DENR Environmental Management Bureau in each of the past three years.



CONCENTRATION OF AIR POLLUTANTS RELEASED BY MGEN’S POWER PLANTS³³ (in mg/Nm³)

	2022	2023	2024
Nitrogen oxides (NOx)	156	154	308
Sulfur oxides (SOx)	338	221	204
Particulate matter (PM ₁₀)	4	7	18

In 2024, MGEN’s NOx emissions concentration increased from the previous year following the recommissioning of its PPC 3 and PPC 4 plants. Particulate matter concentration likewise rose by 157%. However, SOx emissions saw an 8% decline. All three concentrations remain within the legal limits prescribed in the Clean Air Act.³⁴

Going forward, MGEN will explore ways to monitor other air pollutants such as persistent organic pollutants (“POP”), volatile organic pollutants (“VOC”), lead (Pb), and mercury (Hg) to better manage its power plants’ impacts on air quality.

³³Power plants included: Toledo Power Company (“TPC”) 1A, Cebu Energy Development Corporation (“CEDC”), and Panay Energy Development Corporation (“PEDC”) 1, 2 & 3
³⁴Legal limits: NOx 1,500, SOx 1,500, and PM 150.

Water & Effluents

Conserving a Scarce Resource

GRI 303 | SASB IF-EU-140

Despite having ample freshwater resources, the Philippines has been facing water scarcity since 2017, with a national water availability of just 1.3 megaliters ("ML") per capita—0.3 ML below the threshold for water stress. In addition to this, 40 million Filipinos do not have access to clean and potable water and still rely on unsafe water sources. To help address these interrelated challenges, One Meralco implements various initiatives aimed at managing the Group’s water consumption without exacerbating water stress and treating wastewater to protect water quality within our areas of operation.



WATER MANAGEMENT METRICS OF MGEN (in megaliters)

	2022	2023	2024
Withdrawn	1,201,625	1,468,928	1,464,320
Consumed	616	222,101	5,160
Discharged	1,201,009	1,246,827	1,459,160
Recycled	149	249	282

In 2024, MGEN, which accounts for more than 99% of our Group-wide water use each year, extracted nearly 1.5 million ML of water—representing a decrease of 0.3% versus 2023—from different sources to cool its coal-fired power plants during operations via a once-through process. Ninety-nine percent (99.65%) of this water, which was withdrawn from surface water, groundwater, seawater, and utility water, was treated before being safely discharged back to the sea.

To further minimize the adverse ecological impact of its power plants and help ease global freshwater scarcity, MThermal, a fully owned subsidiary of MGEN, has rolled out a wastewater management program across its facilities in the Visayas at a low cost. Initiatives under this program include but are not limited to recycling of deep well reverse osmosis reject water (for backwash, fire hydrants, and plant-watering service), conversion of closed-loop seawater pump cooling systems to open systems, and diversion of effluents to rainwater to desalination plants. Thus far, MThermal has spent only PhP 600,000 on this program, which was only used for the last initiative, as each project required either internal process modifications or materials and equipment that were readily available in the company’s facilities.

From the Distribution Utility perspective, we have made significant strides in reducing our freshwater consumption and associated operating costs as part of RCEP. In 2024, we equipped key Meralco facilities—including the Meralco Operating Center, 10 Sector Offices, the Sub-Transmission Services Facility, and three support facilities (the Powerbase Lineman’s Training Camp, the Pagbilao Service Center, and the Pala-pala Stores)—with sewage treatment plants (“STPs”) utilizing advanced sequencing batch reactor (“SBR”) technology. This technology effectively treats wastewater by optimizing the removal of organic matter and nutrients, in compliance with DENR’s general effluent standards.

To reduce the volume of freshwater we use, as well as the quantity of treated wastewater discharged into the environment, we invested in a cutting-edge tertiary treatment facility (“TTF”) at the Meralco Operating Center. The TTF further purifies the SBR-treated water to stringent quality standards, enabling us to reuse the high-quality effluent in our cooling towers. By doing so, we are not only compliant with the Philippine Clean Water Act but also advancing sustainable water management practices across our operations. As a result of this initiative, by the end of the reporting period, we had successfully reduced Meralco’s water consumption by 10% compared to the previous year—exceeding our year-end target of 5%.



Innovating for *Water Reclamation*

In 2024, Maynilad, one of the two major water supply and wastewater service providers in the Greater Manila Area, partnered with MSERV as its chosen contractor to construct its new STPs in the cities of Pasay and Parañaque, as well as modernize its water reclamation facility in Muntinlupa. Aimed at meeting the updated water quality guidelines and general effluent standards under the DENR Administrative Order No. 2021-19, these upgrades enhance the STPs' treatment capacity and efficiency, ensuring compliance with the DENR's stringent standards for wastewater management. MSERV handled the design and construction of all civil and electrical non-process equipment and non-process auxiliary equipment for the project.

A key component of the project is the introduction of advanced treatment processes to further purify effluent from the STPs. This innovative approach, which is the first in the country, produces "NEW WATER", a high-quality, potable-grade water source. By transforming treated wastewater into a reusable resource, the project helps reduce the reliance of Metro Manila's West Zone on freshwater sources and can help address the country's water scarcity problem.

Looking ahead, Maynilad will upgrade its Cupang Water Reclamation Facility this year to meet the updated DENR standards, once again tapping MSERV as its trusted engineering partner.

Material Consumption & Waste Management

Optimizing Resource Utilization

GRI 306-1 | GRI 306-5



Each year, the Philippines generates a staggering 3 million tonnes of food waste from households alone and nearly 2.5 million tonnes of plastic waste. Meanwhile, 1 billion tonnes of waste fly ash is produced from coal-fired power plants worldwide. These waste challenges highlight the urgent need for proper systems to prevent waste from polluting land and the ocean. One Meralco responds by addressing the root cause of the problem—the linear take-make-dispose model of resource consumption—with policies and programs that help operationalize the three Rs of waste management: reduce, reuse, and recycle. Materials that inevitably reach their end-of-life are disposed of in compliance with national waste management standards.

To streamline and improve waste management practices and initiatives across One Meralco, we continue to implement our Race to Zero Waste (“RZW”) Program. With the goal of reducing the impact of our Group on landfills and the ocean, our RZW Program covers all our offices, Sector Offices,

Business Centers, substations, and other facilities we own and manage. The RZW Program was built on the success and momentum of our Group-wide ban on single-use plastics (“SUP”) that began in 2019. The SUP ban currently covers all One Meralco offices and facilities and extends to the Group’s suppliers.

AMOUNT OF SOLID WASTE TREATED OR DISPOSED OF BY MERALCO
(in tonnes)

	2022	2023	2024
Biodegradable	2,133	1,562	1,730
Recyclable	411	403	316
Residual	116	105	117
TOTAL	2,660	2,070	2,163

Meralco has achieved a more effective and efficient monitoring and segregation of waste by implementing a more robust waste management system founded upon a comprehensive waste analysis and characterization study. We have deployed more labeled waste segregation bins, established materials recovery facilities (“MRFs”), and facilitated employee awareness campaigns. In 2024, the Company generated a total of 2,163 tonnes of solid waste, up by more than 4% from 2023, due to more tree trimming activities, resumption of corporate events, and holiday celebrations.

During the same reporting period, we successfully diverted all of Meralco’s biodegradable and recyclables wastes—representing 95% of the Company’s total waste generated—as a result of strict adherence to national waste management policies and Company-specific guidelines, expansion of waste management facilities, and better employee awareness campaigns. Meralco’s biodegradable waste, which made up nearly 80% of the Company’s total waste in 2024, was processed through mechanized

dual-drum composting units. This process resulted in the production of six tonnes of high-quality compost by the end of the year. Additionally, waste trimmings from routine maintenance activities were donated to local government units (“LGUs”) for composting and waste-to-energy initiatives.

Our Race to Zero Waste Program extends to our subsidiaries. For instance, MGEN focuses on coal ash recycling in its power plants. In 2024, the coal ash recycling rates at MGEN’s facilities in Cebu and Panay increased by 16% compared to the previous year, resulting in the diversion of over 154,000 tonnes of waste coal ash from landfills. This was a result of better implementation of coal ash waste management and recycling on these sites.

Meralco and MGEN’s thermal plants hold ISO 14001 certifications, which attests to the robustness of our Group’s environmental management systems.

Biodiversity

Managing Our Impact on Ecosystems



The power industry, particularly through the development of infrastructure such as substations, utility poles, and power plants, can significantly impact ecosystems. For instance, land use changes, habitat fragmentation, and pollution (including air, water, noise, and light) from power generation—whether from fossil fuels or even RE sources—can severely disrupt and harm local wildlife. Moreover, the sector’s GHG emissions drive climate change, which adds pressure on threatened species by altering habitats and weather patterns.

Recognizing the adverse impacts of our business on nature, One Meralco strictly adheres to all relevant biodiversity laws and regulations in the Philippines. This includes conducting thorough environmental impact assessments before constructing new facilities and ensuring that their potential adverse effects on local ecosystems are properly identified and mitigated through their construction and operational phases.

Beyond mere compliance, our Group also strives to contribute to the restoration of local biodiversity through our OFT Program. This initiative under OMF prioritizes the planting of indigenous tree species, which are crucial for maintaining and restoring the integrity of local ecosystems and supporting native wildlife.

OFT helps in rehabilitating damaged and threatened forests and watersheds across the country while providing a reliable source of income to local communities that provide support in our tree-planting activities.

In 2024, our Group planted over 84,600 new trees through OFT—including 4,000 trees at the Meralco Operating Center as part of Meralco’s PowerPlants initiative—bringing our total to over 2.7 million trees across the Philippines. Of these, nearly 1.7 million were directly contributed by MGEN. Ultimately, we aim to plant and ensure the sustainable growth of 5 million trees by 2030 through this biodiversity program—40% of which will be covered by MGEN.