

4.3 Energy Management

► Energy Usage

PharmaEssentia's energy consumption mainly stems from purchased electricity and natural gas. Our total energy usage volumes increased in 2024, mainly as production volumes increased compared to 2023. We continue to improve energy efficiency in production processes and are considering investments in energy-saving equipment, including but not limited to purchasing suspension chillers, variable frequency air compressors, and energy-efficient equipment to reduce energy consumption and comply with Good Manufacturing Practice (GMP) requirements stipulating that production environments should maintain certain cleanliness and quality control standards. PharmaEssentia's specific achievements in 2023-2024 included phasing out air compressors and installing energy-saving chillers. Total investments amounted to NT\$5.5 million, and we reduced energy usage by 158,000 kWh, equivalent to 78.07 tCO₂e in emissions.

Energy Consumption at PharmaEssentia GRI 302-1

(Unit: GJ)

| Energy Type | 2022 | 2023 | 2024 |
|--------------------------|-----------|-----------|-----------|
| Purchased power | 24,383.01 | 24,697.91 | 32,570.99 |
| Natural gas | 9,499.14 | 11,287.08 | 13,976.93 |
| Diesel | 18.44 | 9.28 | 17.50 |
| Gasoline | 19.99 | 10.15 | 7.95 |
| Total energy consumption | 33,920.58 | 36,004.43 | 46,573.36 |

Note: This 2024 Sustainability Report restated energy consumption for 2022-2023 as greenhouse gas inventory verifications were completed in 2024, so we make updates using data verified by a third party

PharmaEssentia Energy Intensity GRI 302-3

| Indicator | 2022 | 2023 | 2024 |
|--|-------|------|------|
| Energy intensity (GJ/million TWD) | 11.77 | 7.05 | 4.78 |
| Change in energy intensity compared to previous year (%) | - | -40% | -32% |

► Greenhouse Gas Emissions

PharmaEssentia's largest greenhouse gas emission source is Scope 2 purchased electricity. Following commercialization of our new drugs in global markets, overall sales and production volumes in 2024 continued to grow, and total electricity usage also grew accordingly. Energy intensity and greenhouse gas emission intensity decreased by 32% and 43% compared to the previous year. PharmaEssentia's Taipei Headquarters and Taichung Plant conducted ISO 14061-1 greenhouse gas inventories and obtained third-party verification of 2023 greenhouse gas emissions data in 2024. We are currently working to obtain greenhouse gas emissions verifications for 2024. Greenhouse gas inventory results will be used as a reference for continued improvement of energy efficiency to achieve our target of lowering greenhouse gas emission intensities.

PharmaEssentia Taichung Plant Greenhouse Gas Emissions

GRI 305-1 GRI 305-2 GRI 305-3(Unit: tCO₂e)

| Indicator | ISO 14064-1 | Description | 2022 | 2023 | 2024 |
|-----------|-------------|--|----------|----------|----------|
| Scope 1 | Category 1 | Direct energy use | 569.55 | 690.11 | 828.26 |
| Scope 2 | Category 2 | Electricity from Taiwan Power Company | 3,037.27 | 2,900.10 | 3,080.84 |
| Scope 3 | Category 3 | Fuel transportation, raw material upstream transportation, product downstream transportation, employee commutes, business travel, waste transportation | 657.79 | 122.59 | 106.70 |
| | Category 4 | Sold products, outsourced product processing, services, waste treatment | | 747.02 | 819.23 |
| Total | | | 4,264.61 | 4,459.82 | 4,835.03 |

PharmaEssentia Taichung Plant Greenhouse Gas Intensities GRI 305-4

| Indicator | 2022 | 2023 | 2024 |
|---|------|------|------|
| Greenhouse gas emissions intensity (tCO ₂ e/million TWD) | 1.48 | 0.87 | 0.50 |
| Change in greenhouse gas emission intensity compared to previous year (%) | - | -41% | -43% |

Note 1: The greenhouse gas emissions data in this table were taken from PharmaEssentia's Taichung Plant, and revenues used for calculating intensity encompassed the entire company. This 2024 Sustainability Report restated greenhouse gas emissions data for 2023 as greenhouse gas inventory verifications were completed in 2024, so we make updates using data verified by a third party

Note 2: Inventoried greenhouse gases included carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and trifluoride nitrogen (NF₃)

Note 3: These figures were calculated using the "emission factor method." The emission factors for purchased electricity were taken from the Ministry of Economic Affairs Energy Administration. Electricity emission factors for 2021 and 2022 were 0.509 (kgCO₂e/kWh) and 0.495 (kgCO₂e/kWh), respectively. GWP values for various greenhouse gases listed in IPCC AR6 (2021) were used as a basis for calculating carbon equivalents for natural gas emissions

Note 4: Total product sales for the year (million TWD) were used to measure usage intensity and emission intensity

PharmaEssentia Taipei Headquarters 2023 Greenhouse Gas Emissions

GRI 305-1 GRI 305-2 GRI 305-3(Unit: tCO₂e)

| Indicator | ISO 14064-1 | Description | 2023 |
|-----------|-------------|--|----------|
| Scope 1 | Category 1 | Direct energy use | 25.99 |
| Scope 2 | Category 2 | Electricity from Taiwan Power Company | 1,230.93 |
| Scope 3 | Category 3 | Emissions associated with transportation (Waste removal transportation) | 0.63 |
| | Category 4 | Indirect emission sources from raw materials/services (Indirect emissions from waste treatment and indirect emissions from wastewater treatment) | 247.95 |
| Total | | | 1,505.50 |

Note: The greenhouse gas emissions data in this table were taken from PharmaEssentia Taipei Headquarters, and we obtained third-party verifications for our greenhouse gas emissions in 2024