Power Usage Effectiveness (PUE)

Data Center Load

true

Total Facility Energy

Power

- Transformer
- UPS
- Rectifier
- Light
- PUD
- Etc.

Cooling

- Chillers
- Precision Air
- Comfort Air
- Cooling Tower

IT Equipment Energy

IT Load

- Servers
- Storages
- Telco equipment
- Etc.

$$PUE = \frac{Total\ Facility\ Energy}{IT\ Equipment\ Energy}$$

Power Usage Effectiveness 2024

In UPS (kWh)	% Loss	Out UPS (kWh)	Non-UPS (kWh)	Total PUE
25,236,110	6.88%	23,499,671	13,675,707	1.656

$$PUE = \frac{\text{Total Facility Energy}}{\text{IT Equipment Energy}}$$

$$PUE = \frac{25{,}236{,}110 + 13{,}675{,}707}{23{,}499{,}671} = 1.656$$

Power Usage Effectiveness Performance

Year	2021	2022	2023*	2024
Average PUE	1.688	1.684	1.663	1.656
Coverage (% of total ICT population)	100	100	100	100

Note:
- PUE Target 1.700
- Combined Performance True and dtac since 2023

Renewable Energy 2024

Data Center Energy Usage (MWh)	Electricity Generation from Solar Cell (MWh)	Percentage of Renewable Energy of total energy
38,912	13,704	35.22%

% of Renewable Energy (of total energy) = $\dfrac{\text{Electricity Generated from Solar Cells}}{\text{Data Center Energy Used}} \times 100$

Renewable Energy Performance

Year	2021	2022	2023*	2024
Total Energy Consumption in Data Centers (MWh)	38,143	37,586	37,437	38,912
Percentage of Renewable Energy (of total energy)	21.79	33.18	34.19	35.22
Percentage of Renewable Energy Target	15.50	25.00	30.00	35.00