



GSMA  
**Intelligence**

# Energy and Towers Efficiency Benchmark

What's up? Down? And what does it tell us?

Presented by GSMA Intelligence



**Tim Hatt**

**GSMA Intelligence, Head Of Research & Consulting**

Every mobile operator. Every network.  
Every spectrum assignment.



Backed by the GSMA, GSMA Intelligence provides a 360° intelligence platform delivering insights, forecasts and research across IoT, 5G, Open RAN, NTN, AI and the wider telecoms ecosystem.

### 2026 research themes

#### Tech transformation

Telco networks

AI

Emerging technologies

Security

#### Service innovation and monetisation

Digital industries and B2B

eSIM and IoT

Consumer devices and services

Digital home

#### Mobile impact

Industry value

Digital economy

Spectrum

Sustainability



### Data and analytics

- 50M+ data points, 4,500 networks, 2,000–2030 forecasts
- Operator & market benchmarks, technology tracking
- Verified global data across mobile, fixed, IoT & devices



### Research and insights

- 200+ annual reports across 17 telecom & digital topics
- Quarterly market reviews and technology deep dives
- Expert analysis on 5G, IoT, AI, devices, convergence & more



### Consulting and events

- Custom research, strategy projects & market assessments
- Sponsored reports and thought-leadership programmes
- MWC event support (content, insights, briefings)



### Tools

- Spectrum Navigator & Network Sunsets dashboards
- Coverage maps
- Premium data suite

# GSMA Intelligence's Energy Efficiency Benchmark: The scope

The biggest energy efficiency analysis in the industry

**19**

Network operator groups  
and TowerCo

**76**

Countries

**118**

Networks

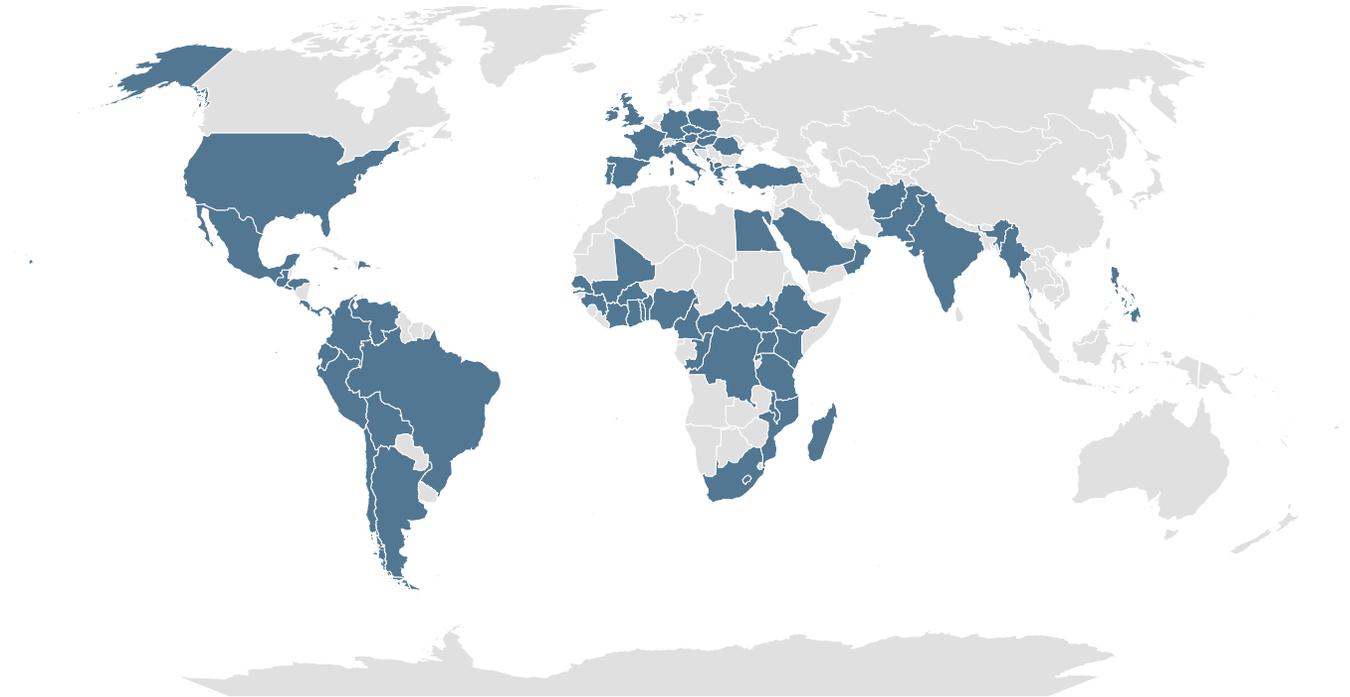
**1.5bn**

Mobile subscriber footprint  
coverage

**18%**

Global market share\*

Countries included in the project

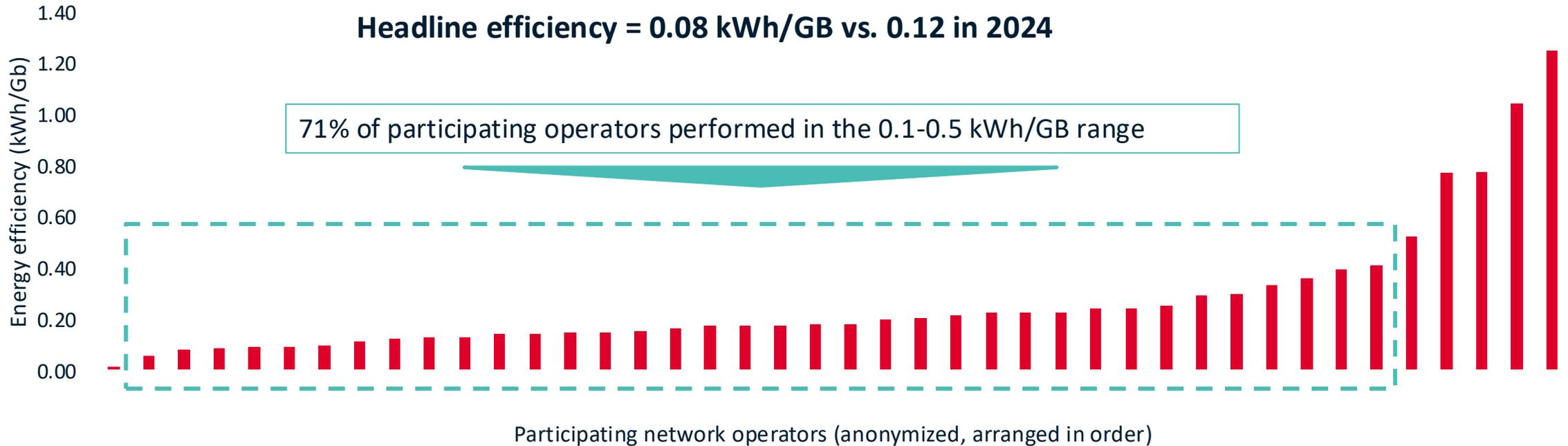


Powered by Bing  
© Australian Bureau of Statistics, GeoNames, Microsoft, Navinfo, Open Places, OpenStreetMap, Overture Maps Foundation, TomTom, Zenrin

# Energy Efficiency

Overall improvement (again), but still regional variation

Overall energy efficiency of participating operators

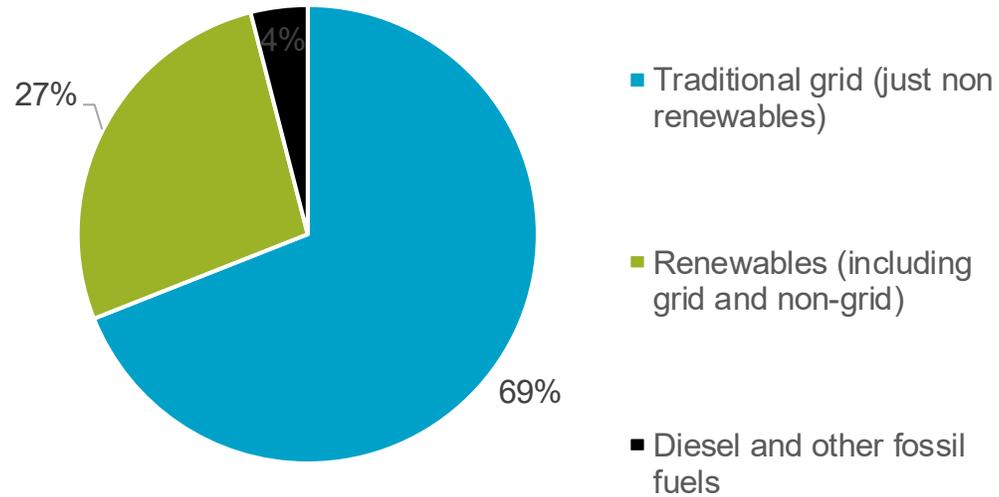


Data based on GSMA Intelligence Telco Energy Benchmark study in 2026  
Source: GSMA Intelligence

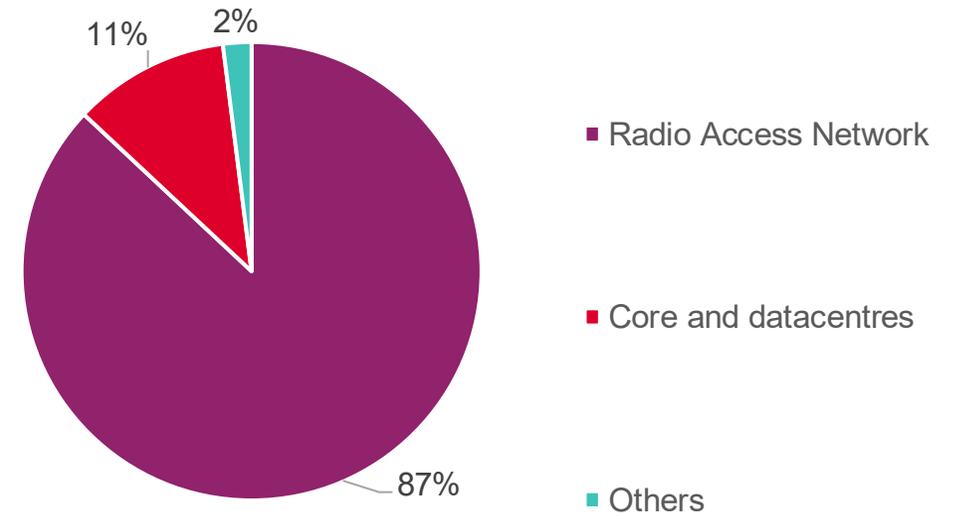
# Progress is being made

Still about the RAN, but AI is coming

## Source of Energy



## Use of Energy

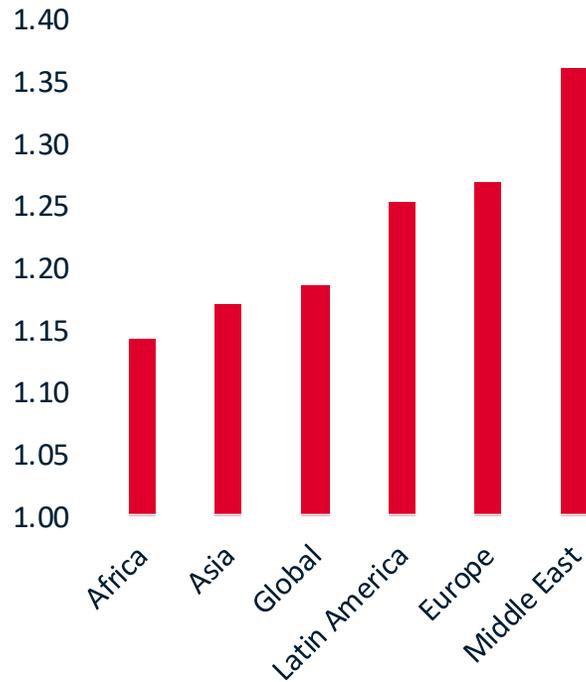


Data based on GSMA Intelligence Telco Energy Benchmark study in 2026  
Source: GSMA Intelligence

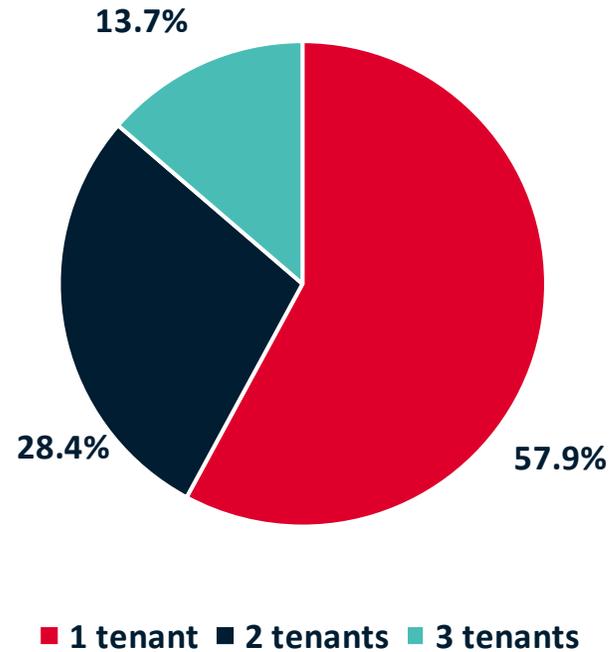
# Towers: mach 1

## Multi tenancy and the drive to up renewables

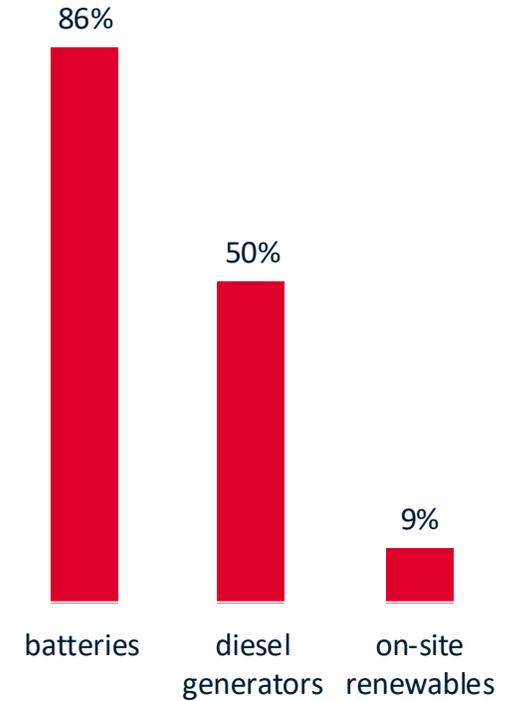
### Site PUE per region



### Number of tenants per site



### Sites equipped with...



Data based on GSMA Intelligence Telco Energy Benchmark study in 2026  
Source: GSMA Intelligence

# What's next in 2026?

What participating operators receive

1.

Tailored insights

Personalised dashboards

Participating operators receive access a private dashboard benchmarking their op-co performance vs. the overall industry

2.

Visibility

Public report

Logo and branding on thought leadership report and promotion

3.

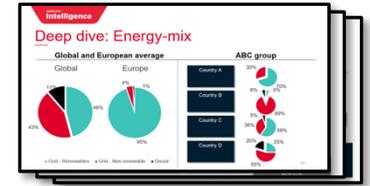
Knowledge sharing

Community

Access to workshops to share insights, experience and learnings

NEW IN 2026

- New modelling features
- Increased market share coverage
- Deeper tower metrics
- Digital interface



# New research from GSMA Intelligence

## Enablement effect 2.0

This report evaluates how ICT and connectivity help reduce carbon emissions in the broader economy by measuring both the emissions they produce and those they prevent through digital solutions in major industries.

### What makes this report it significant?

- Understand how to measure ICT-enabled emissions reductions credibly
- Navigate standards, regulation and Scope 3 reporting expectations
- Identify where digital technologies can deliver real, scalable climate impact
- Separate headline efficiency claims from net, economy-wide outcomes
- It positions ICT not just as an operational tool, but as a strategic lever for the net-zero transition.



**Emanuel Kolta**  
GSMA Intelligence

**Devesh Gautam**  
Rakuten Symphony

**Attila Horvat**  
Deutsche Telekom AG

**Kyriakos Exadaktylos**  
Vodafone Group

**Echo Tu Le**  
Ericsson



**Tim Hatt**  
GSMA Intelligence

**Ravi Suchak**  
Helios Towers

**Anastasios Koumparos**  
Vantage towers